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# Proposal to the Sonoma County Waste Management Agency for Organic Materials Processing Services

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Submitted by:  
**Napa Recycling & Waste Services, LLC**  
P.O. Box 239  
Napa, CA 94559



January 11, 2018

 *Printed on 100% Recycled Paper*



**Napa Recycling & Waste Services**  
**P.O. Box 239 · Napa, CA 94559**  
**(707) 255-5200**  
**[www.naparecycling.com](http://www.naparecycling.com)**

January 10, 2018

Patrick Carter, Executive Director  
Sonoma County Waste Management Agency  
2300 County Center Drive, Suite B100  
Santa Rosa, CA 95403  
[Patrick.Carter@sonoma-county.org](mailto:Patrick.Carter@sonoma-county.org)

**Subject: Request for Proposal for Organic Materials Processing Services**

Dear Mr. Carter:

Thank you for the opportunity to submit this response to your *Request for Proposal for Organic Materials Processing Services* for the Sonoma County Waste Management Agency.

Napa Recycling & Waste Services, LLC continues to provide a proven local composting opportunity for Sonoma County's organic waste material.

**Napa Recycling can accept 150 tons/day, or between 26,000 tons/year and 46,800 tons/year of all organics - including food waste - from Sonoma County. As a fully permitted facility, we offer both the flexibility of a shorter 3-year term, as well as the financial stability of 10, 15 or 20-year terms.**

Napa Recycling has proven experience developing and running successful composting facilities in the region, and is uniquely qualified to provide that service in Sonoma County. In addition, our local composting facilities in Napa and Yolo counties provide flexible options for composting Sonoma County's organic material, including residential, commercial and industrial food waste composting. Our facilities produce quality, organic compost that is tested under the most stringent methods, and is sold to a variety of satisfied end-users.

Napa Recycling and our partners are local, family-run businesses that have served the Bay Area for decades. This experience includes developing and running pioneer composting operations that still provide the North Bay (and the surrounding regions) with important, sustainable and cost-effective means to divert organics from landfills and produce a valuable, organic soil amendment.

Napa Recycling's facility has a state-of-the-art organics pre-processing system, and is planning a new, technologically advanced covered composting operation to complement the current windrow system. We already successfully process & compost a large amount of SCWMA material at our Napa facility (approximately 25,000 tons in 2017), and we are excited to expand this successful partnership in the future. We also have a facility in Yolo County which serves as a contingency facility in case material needs to be transferred from the Napa site.





January 3, 2018

Sonoma County Waste Management Agency  
Patrick Carter, Executive Director  
2300 County Center Dr., B-100  
Santa Rosa, CA 95403

To whom it may concern:

Union Bank has provided various credit facilities to Napa Recycling & Waste Services, LLC and its affiliated entities, which includes, among other things, CPCFA Bond Financing, working capital and acquisition financing, financing of transfer stations and material recover facilities and term loans for equipment and various other capital. These credit facilities currently total approximately \$40,500,000 of which the company maintains ample availability.

Analysis for these credit facilities include the viability of certain projects for automated rubbish, yard waste, and recyclables, transfer stations and facilities designed to process single stream recyclables. The above credit facilities include, but are not limited to, financing for solid waste processing, materials recycling, composting and solid waste transfer as well as financing for solid waste collection including trucks, carts and bins.

Napa Recycling & Waste Services, LLC is a highly valued client of Union Bank and is considered one of the top clients in the bank. We have enjoyed a long and cherished relationship with this client. We have reviewed the company's annual financial statements for the past five years and understand the company's operations and industry. Napa Recycling & Waste Services, LLC and its affiliate companies have met all of their past financial obligations to Union Bank and the bondholders. We have reviewed the capital and financial requirements to fulfill the contract with the County of Sonoma. Based on these requirements and the company's excellent past financial performance, I am not aware of any impediments that would prevent Napa Recycling & Waste Services, LLC from fulfilling any reasonable financial requirements under a contract with the County of Sonoma.

Please feel free to contact me with any questions at (909) 244-1261.

Sincerely,

A handwritten signature in blue ink, appearing to read 'Myra Juetten', written over a horizontal line.

Myra Juetten  
Director, Environmental Services Group

**Sonoma County Waste Management Agency  
Request for Proposals for Organic Materials Processing Services**

Addendum No. 1

Issued – July 7, 2017

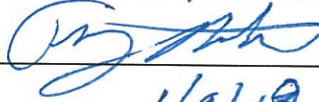
THEREFORE: All Applicants are required to sign this page of this Addendum No. 1, and shall submit a signed copy of this page with their Proposal package.

Thank you for your participation,

**Sonoma County Waste Management Agency**  
**Patrick Carter**  
**Executive Director**

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**ADDENDUM NO. 1      DATE: July 7, 2017**

COMPANY / AGENCY NAME: NAPA Recycling & Waste Services  
COMPANY ADDRESS: P.O. Box 239, NAPA, CA 94559  
REPRESENTATIVE'S NAME: Tim Dewey-Mattia  
SIGNATURE:   
DATE: 1/9/18



**Sonoma County Waste Management Agency  
Request for Proposals for Organic Materials Processing Services**

Addendum No. 2

Issued – July 27, 2017

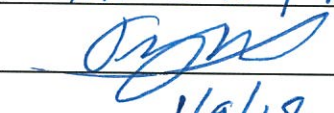
All Applicants are required to sign this page of this Addendum No. 2, and shall submit a signed copy of this page with their Proposal package.

Thank you for your participation,

**Sonoma County Waste Management Agency  
Patrick Carter  
Executive Director**

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**ADDENDUM NO. 2      DATE: July 27, 2017**

COMPANY / AGENCY NAME: NAPA Recycling & Waste Services  
COMPANY ADDRESS: P.O. Box 239 Napa, CA 94559  
REPRESENTATIVE'S NAME: Tim Dewey-Mattia  
SIGNATURE:   
DATE: 1/9/18

**Sonoma County Waste Management Agency  
Request for Proposals for Organic Materials Processing Services**

Addendum No. 3

Issued –September 22, 2017

All Applicants are required to sign this page of this Addendum No. 3, and shall submit a signed copy of this page with their Proposal package.

Thank you for your participation,

**Sonoma County Waste Management Agency**  
**Patrick Carter**  
**Executive Director**

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**ADDENDUM NO. 3      DATE: September 22, 2017**

COMPANY / AGENCY NAME:

Napa Recycling & Waste Services

COMPANY ADDRESS:

P.O. Box 239, Napa, CA 94559

REPRESENTATIVE'S NAME:

Tim Duwey-Mattia

SIGNATURE:



DATE:

1/9/18

**Sonoma County Waste Management Agency  
Request for Proposals for Organic Materials Processing Services**

Addendum No. 4

Issued –November 21, 2017

All Applicants are required to sign this page of this Addendum No. 4, and shall submit a signed copy of this page with their Proposal package.

Thank you for your participation,

**Sonoma County Waste Management Agency  
Patrick Carter  
Executive Director**


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**ADDENDUM NO. 4    DATE: November 21, 2017**

COMPANY / AGENCY NAME: Napa Recycling & Waste Services

COMPANY ADDRESS: P.O. Box 239 Napa, CA 94559

REPRESENTATIVE'S NAME: Tim Dewey-Mattia

SIGNATURE: 

DATE: 11/2/18



**Proposal Bond:**

See attached bid bond for \$25,000.

**Performance Bond Commitment Letter:**

See enclosed letter of commitment for the \$1,000,000 Performance Bond from Philadelphia Indemnity Insurance Company, as well as a Financial Qualifications letter from Union Bank.

**Receipt of Signed Addenda:**

See attached for the four signed addenda.

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**Napa Recycling & Waste Services**  
**P.O. Box 239 · Napa, CA 94559**  
**(707) 255-5200**  
**[www.naparecycling.com](http://www.naparecycling.com)**  
**Facebook & Twitter @NapaRecycling**

### **Executive Summary**

Napa Recycling & Waste Services, LLC provides this response to the *Request for Proposal for Organic Materials Processing Services* for the Sonoma County Waste Management Agency.

Napa Recycling continues to provide a proven local composting opportunity for Sonoma County's organic waste material. This enables Sonoma's material to stay within the local North Bay region, with organic compost from our facility going back to Sonoma County for use as a soil amendment.

**Napa Recycling can accept 150 tons/day, or between 26,000 tons/year and 46,800 tons/year of all organics - including food waste - from Sonoma County. As a fully permitted facility, we offer both the flexibility of a shorter 3-year term, as well as the financial stability of 10, 15 or 20-year terms.**

Napa Recycling operates the Napa Materials Diversion Facility, which is a fully permitted composting facility that can accept the wide range of the materials included in the proposal. We have proven experience in processing and composting food waste material, which is imperative going forward to meet the organics diversion goals of AB 1826, AB 1383 and AB 32.

The facility has recently revised the permit to allow for up to 500 tons/day of organics, which allows for a long term commitment to Sonoma County tonnage.

Since the facility is fully operational and already accepting approximately 25,000 tons of SCWMA material, the transition to a new, longer term agreement will be seamless and material can be directed to the Napa MDF immediately with no delay.

The Napa MDF has a state-of-the-art organics pre-processing system, and is planning to add additional technologies to the already successful composting operation. Covered aerated static pile composting, organics de-packaging, anaerobic digestion, and biomass gasification are all planned. These projects will increase the processing capacity as well as the amount of high quality and organic soil amendments and renewable energy produced.

The recent wildfire disaster provided an example of our facility's benefits to Sonoma County, as our facility was able to accommodate large increases in wood and green waste tonnages under relatively short notice. In addition, we continue to work with SCWMA and Sonoma County businesses to find opportunities to divert additional commercial food scraps, compostable food ware and other organics

**Additionally, Napa Recycling will be happy to send 350 yards of organic compost, twice a year, back to SCWMA for no charge compost giveaways in the community.**

### **Qualifications**

Napa Recycling & Waste Services has operated organics processing and composting operations for several decades, and staff is experienced in all facets of organics processing and diversion. The Napa facility opened in 1993 and staff is well versed in organics outreach, processing and management.

### **Financial Qualifications**

Napa Recycling & Waste Services is under contract with the City of Napa to operate the Napa Materials Diversion Facility. Napa Recycling & Waste Services is in good financial standing and has the qualifications to perform the work as described.

The Napa MDF is fully operational and permitted, and organics processing operations in place can handle the material flow described in our proposal.

**Our proposal is simple, straightforward and cost-effective.** No new trucks, facilities or other equipment need to be purchased or financed – all equipment costs are covered under Napa Recycling & Waste Services contract with the City of Napa. Sonoma County tonnage will all be processed with the equipment already purchased and operational.

### **Technical Proposal & Operations**

Napa Recycling & Waste Services is proposing both a short term (3-year base term) and long-term (10, 15 or 20-year base term) proposal to provide the SCWMA convenient, cost-effective local composting options at a fully operational facility.

Napa Recycling & Waste Services operates the City of Napa Materials Diversion Facility (MDF), owned by the City of Napa, at 820 Levitin Way in southern Napa County (off Highway 29 & South Kelly Road, just north of American Canyon). This facility, also known as the Napa Recycling & Composting Facility, is a fully permitted composting facility. The 12 acre composting facility can process up to 500 tons per day of residential, commercial and industrial food waste, yard trimmings, wood, grape pomace, manure, and other organics. Composting at the facility began in 1993, and recently a pre-processing line was added with a receiving building and electrified sorting, grinding and pre-screening equipment. Composting is done in an open windrow system, with CEQA-ready plans to expand to include an aerated static pile system, along with a biomass energy plant and dry anaerobic digester. The facility currently processes approximately 90,000 tons of organics each year.

Our company has also operated a composting facility at Zamora in Yolo County since 2008. The Northern Recycling Compost facility is permitted to compost up to 300 tons/day in turned windrows and an aerated static pile system. Northern Recycling's compost is also tested and certified with CDFA, OMRI and STA. The Northern Recycling Compost facility provides composting backup for Napa Recycling material – as material processed in the Napa organics pre-processing system can be transferred to Zamora for composting if necessary.

### **Marketing**

Napa Recycling's Compost is tested monthly and certified with the United States Composting Council's Seal of Testing Assurance (STA). It is also listed for use in organic production by the Organic Materials



Review Institute (OMRI) and California Department of Food & Agriculture (CDFA). Compost is marketed to agriculture, wholesalers, landscapers, nurseries, Caltrans, and gardeners and often sells out during the year due to high demand. Napa Recycling markets to a diverse group of end-users through personal contacts, the website, direct mailings, and through various other advertising methods. There is ever increasing demand for organic composting and Napa Recycling's regional, sustainable markets are robust. Napa Recycling also provides blending, delivery, spreading and consultation services, and donates compost to local community and school gardens.

### **Facility Operations and Recovery Rate**

Napa Recycling accepts all of the organic materials as listed in section 3.3, which include:

- Wood Waste
- Green Waste
- Mixed Organic Materials
- Mixed Organic Materials with Compostable Food Ware
- Commercial Food Scraps
- Commercial Food Scraps with Compostable Food Ware
- Other Organics

The Other Organics include: manure, grape pomace, cannabis waste, other agricultural organic waste, industrial organic waste from food processors, and wine/other beverages for product destruction.

Napa Recycling consistently recovers well over 90% of material accepted at the facility. Our facility keeps robust inbound and outbound records and weighs all outbound residual loads. For the calendar year of 2017, the post-processing residual from the organics processing area was 1% by weight.

### **Reporting**

Napa Recycling is well-versed in creating detailed reporting for jurisdictions and agencies. With all of the increased reporting coming with AB 901, we are well prepared to provide detailed reporting as needed by the state, partner agencies or other customers.

Napa Recycling tracks information in the facility's Soft-Pak and will provided detailed monthly and quarterly reports as needed.

### **Sustainability**

Napa Recycling & Waste Services strives to be a regional leader in sustainability through waste diversion from landfills, manufacturing organic soil amendments, reducing methane and carbon emissions, producing and using renewable fuels and supporting California's efforts to reach the AB 32 goals.

### **Pricing**

**Pricing will be \$50/ton for all materials listed for a 3-year term. Pricing for the longer terms of 10, 15, and 20 years is \$45/ton for all the materials listed.**

## **2.0 Qualifications**

Napa Recycling & Waste Services has operated organics processing and composting operations for several decades, and staff is experienced in all facets of organics processing and diversion.

### **2.1 Key Staff Persons:**

Napa Recycling staff has many years of relevant technical experience in providing Organic Materials processing services and related solid waste and recycling services. Napa Recycling staff has operated the Napa Recycling & Composting Facility since it's opening in 1993. See below for staff Resumes are included in Attachment 1:

Greg Kelley  
Managing Member  
707-255-5200 x1181  
[greg@naparecycling.com](mailto:greg@naparecycling.com)

Mike Murray  
Chief Financial Officer  
707-255-5200 x1180  
[mike@naparecycling.com](mailto:mike@naparecycling.com)

Tim Dewey-Mattia  
Recycling & Public Education Manager  
Collection Service Manager assigned to SCWMA duties  
707-255-5200 x1204  
[tim@naparecycling.com](mailto:tim@naparecycling.com)

Will Kelley  
Resource Manager  
Service Supervisor, manages organics pre-processing and composting operation  
(707) 256-3500 x1197  
[willk@naparecycling.com](mailto:willk@naparecycling.com)

### **2.2 References:**

Kevin Miller  
Materials Diversion Administrator  
City of Napa Public Works Department  
P.O. Box 660  
Napa, CA 94559-0660  
707-257-9200 x7291  
[kmiller@cityofnapa.org](mailto:kmiller@cityofnapa.org)

Greg Pirie  
Solid Waste Program Manager/LEA  
Napa County Department of Planning, Building & Environmental Services

1195 Third Street  
Napa, CA 94559  
707-253-4144  
greg.pirie@countyofnapa.org

Jo Anne Meroney  
Co-Owner  
Sonoma Garbage Collectors  
P.O Box 400  
EL Verano, CA 95433  
707-996-7555  
jodancer@vom.com

Doug Button  
President  
South San Francisco Scavenger Company  
PO Box 348  
South San Francisco, CA 94080  
(650) 589-4020  
doughb@ssfscavenger.com

### **2.3 Conflict of Interest Statement:**

Napa Recycling & Waste Services warrants that no gratuities have been or will be offered or given by our company, or any agent or representative of our company, to any officer or employee of the SCWMA or any participant in the selection of a Proposer to furnish the services described herein in order to secure a favorable treatment regarding the evaluation, scoring, and Agreement award process.

### **2.4 Litigation and Notice of Violation History:**

There have been no instances of litigation, civil actions or legal actions as described in the RFP against Napa Recycling & Waste Services and our affiliated companies.

The Napa Materials Diversion Facility (MDF) is fully permitted to compost 500 tons/day, and the composting operations is fully permitted to accept food waste. Composting at the facility began in 1993, and recently a pre-processing line was added with a receiving building and electrified pre-sort and grinding equipment. Composting is done in an open windrow system, with plans to soon include an aerated static pile system. The facility is owned by the City of Napa, and through our public-private partnership, we strive to operate a clean, safe and functional composting operation. There have been no enforcement actions or cease and desist orders from any regulatory agency.

Here is a list of Notices of Violations at the Napa MDF composting facility in the past 5 years. Copies are included in Attachment 2. Please see the complete CalRecycle SWIS database for all inspection detail:

7/12/17 – violation in MRF area; improper tire storage, vehicles backing into confined area, improper cardboard sorting on conveyor belt. Follow up inspection on 8/2 found that the violations and areas of concern were corrected.



7/12/17 – violation, tonnage limits exceeded in organics area during 5 days in May. Permit has subsequently been revised to merge 400 tpd composting and 360 tpd MRF tonnage limits into 1 daily facility limit of 760 tpd.

6/5/17 – violation; solid waste not removed within 48 hours from outside MRF area. Material was promptly processed to correct violation.

5/11/17 - violation; drainage of loading bay, solid waste not removed within 48 hours from outside MRF area due to equipment being down. Drains were cleared and material was promptly processed to correct violations.

4/28/16 – violation; exceeded maximum daily tonnage for several days in March. Set up additional tracking in scalehouse system to prevent future occurrences and began directing additional material to Zamora, also worked with LEA and CalRecycle to merge daily limits of two areas of facility (400 for composting, 360 for recycling) into one daily tonnage limit of 760 for entire facility which is now the case going forward.

3/31/16 – violation; exceeded maximum daily tonnage for several days in February.

2/24/16 – violation; exceed maximum daily tonnage for several days in November, December and January.

Napa Recycling has no liquidated damages or fines as listed in the RFP to report. We also have no claims against a bid or any contractual defaults or terminations as described in the RFP.

### **3.0 Financial Qualifications**

Napa Recycling & Waste Services is under contract with the City of Napa to operate the Napa Materials Diversion Facility. Napa Recycling & Waste Services is in good financial standing and has the qualifications to perform the work as described.

The Napa MDF is fully operational and permitted, and organics processing operations in place can handle the material flow described in our proposal. In addition, our Northern Recycling – Compost Facility in Zamora, California is also fully permitted and operational and can accept processed organics from the Napa facility. Therefore, no new trucks, facilities or other equipment need to be purchased or financed – all equipment costs are covered under Napa Recycling & Waste Services contract with the City of Napa. Sonoma County tonnage will all be processed with the equipment already purchased and operational.

Please see the enclosed letter from Union Bank describing the company's financial qualifications to perform the work.

In addition, please see the enclosed envelope with audited financial statements for the past 3 years. It is included in Section 1 of the original proposal. Please note that these are labeled as "Confidential" since they describe the financial details of our entire business operation. Please treat these as confidential as per section 5.5.3 of the RFP.

## **4.0 Technical Proposal**

### **4.1 Facility:**

Napa Recycling & Waste Services is proposing both a short term (3-year base term) and long-term (10, 15 or 20-year base term) proposal to provide the SCWMA convenient, cost-effective local composting options at a fully operational facility.

Napa Recycling & Waste Services operates the City of Napa Materials Diversion Facility (MDF), owned by the City of Napa, at 820 Levitin Way in southern Napa County (off Highway 29 & South Kelly Road, just north of American Canyon). This facility, also known as the Napa Recycling & Composting Facility, is a fully permitted composting facility. The 12 acre composting facility can process up to 500 tons per day of residential, commercial and industrial food waste, yard trimmings, wood, grape pomace, manure, and other organics. Composting at the facility began in 1993, and recently a pre-processing line was added with a receiving building and electrified sorting, grinding and pre-screening equipment. Composting is done in an open windrow system, with CEQA-ready plans to expand to include an aerated static pile system, along with a biomass energy plant and dry anaerobic digester. The facility currently processes approximately 90,000 tons of organics each year.

Please see Attachment 3 for the current solid waste facility permit and other applicable permit documentation.

Napa Recycling and Waste Services is also the exclusive franchise hauler of commercial, residential and roll off MSW, recyclables and compostables in the City of Napa. Our sister company, Napa County Recycling & Waste Services, has a similar contract to service unincorporated southern Napa County. Both contracts started in 2005. Napa County Recycling signed a 10 year extension (with four 1 year options) in 2017, and Napa Recycling and the City of Napa anticipate completing a 14-year long term extension in early 2018.

Napa Recycling produces approximately 40,000 cubic yards of compost each year at the Napa Composting Facility. The compost is tested monthly and certified with the United States Composting Council's Seal of Testing Assurance (STA). It is also listed for use in organic production by the Organic Materials Review Institute (OMRI) and California Department of Food & Agriculture (CDFA). Compost is marketed to agriculture, wholesalers, landscapers, nurseries, Caltrans, and gardeners and often sells out during the year. Napa Recycling markets to a diverse group of end-users, and markets the material on the website, through direct mailings, and through various other advertising methods. There is ever increasing demand for organic composting with all end-users, and Napa Recycling's local, sustainable markets are robust. Napa Recycling also provides blending, delivery, spreading and consultation services, and donates compost to local community and school gardens.

Our company has also operated a composting facility at Zamora in Yolo County since 2008. The Northern Recycling Compost facility is permitted to compost up to 300 tons/day in turned windrows and an aerated static pile system. Northern Recycling's compost is also tested and certified with CDFA, OMRI and STA. The Northern Recycling facility provides composting backup for Napa Recycling material – as material processed in the Napa organics pre-processing system can be transferred to Zamora for composting if necessary.

The Northern Recycling composting permit is also included in Attachment 3.

Napa Recycling dates its history back over 100 years ago, when Napa Garbage Service began servicing Napa. The Bacigalupi family, founders of Napa Garbage Service, helped form the new Napa Recycling & Waste Services in 2005.

We also have sister companies that operate the Devlin Road Recycling and Transfer Facility in Napa County (Northern Recycling Operations & Waste Services, provide regional roll off recycling services (Valley Recycling & Disposal), and operate franchise hauling and processing operations in Paradise & Butte County (Northern Recycling & Waste Services).

In addition, one of our parent companies, Upper Valley Disposal and Recycling (UVDR), is a pioneer in the composting field. They first starting composting in the 1970's and currently have an aerated static pile composting system at their St. Helena facility, and an in-vessel food composting operation at the Clover Flat Landfill in Calistoga. They also own and operate the fully permitted Quackenbush Mountain Composting Facility in Lake County, which is permitted to accept 260 tons/day of organics, including food waste. UVDR is the exclusive franchise hauler of MSW, recyclables and compostables in the Upper Napa Valley region, which includes Calistoga, St. Helena, Yountville and adjacent unincorporated areas of Napa County.

Our other parent companies, Marin Sanitary Service and Garaventa Enterprises, have also operated recycling and transfer facilities and provided franchise hauling services within the Northern California region for the past century.

#### **4.2 Recovery Rates:**

Napa Recycling consistently recovers well over 90% of material accepted at the facility. Our facility keeps robust inbound and outbound records and weighs all outbound residual loads. For the calendar year of 2017, the post-processing residual from the organics processing area was 1% by weight.

#### **4.3 Facility Operations:**

The Napa Materials Diversion Facility has a certified scale and all loads are weighed and tracked in Soft-Pak. Paper copies of weight tags are provided to drivers, and electronic reports are available upon request. The facility is open 7 days/week (excluding major holidays), from 8am-4pm.

Napa Recycling accepts all of the organic materials as listed in section 3.3, which include:

- Wood Waste
- Green Waste
- Mixed Organic Materials
- Mixed Organic Materials with Compostable Food Ware
- Commercial Food Scraps
- Commercial Food Scraps with Compostable Food Ware
- Other Organics

The Other Organics include: manure, grape pomace, other agricultural organic waste, industrial organic waste from food processors, and wine/other beverages for product destruction. Napa Recycling can



also compost cannabis waste as described in the State of California's Cannabis Waste Regulations. We do not accept biosolids.

In addition, Napa Recycling has been awarded a CalRecycle grant to purchase a food waste de-packaging system. This system is scheduled to be installed later in 2018 and will allow Napa Recycling to process loads of packaged food waste. The de-packaging system will extract the organic waste from the packaging, with the organics fraction then being processed through the onsite composting system. More information on the de-packaging system is in Attachment 6.

#### **4.4 Site Conditions:**

The Napa Materials Diversion Facility is a fully operational composting facility and has all the necessary permits. The City and NRWS maintain the following permits for the MDF site – samples are included in Attachment 3:

- Napa County Use Permit U-90-29  
As modified:  
February 9, 1994 (93248-MOD)  
September 16, 1994 (93530-MOD)  
April 16, 1995 (94129-MOD)  
March 20, 1996 (95172-MOD)  
September 5, 1997 (96468-MOD)
- Combined Solid Waste Facility Permit (SWFP) for Napa Materials Diversion Facility, SWIS Facility Number 28-AA-0030
- General Permit for Storm Water Discharges Associated with Industrial Activity, Waste Discharge Identification (WDID) Number 2 28I020443, State Water Resources Control Board (State Water Board)
- Order No. 96-098, Conditional Waiver of Waste Discharge Requirements (WDR) for Composting Operations, California Regional Water Quality Control Board, San Francisco Bay Region (Water Board)
- Permit to Operate Plant #17403, Bay Area Air Quality Management District (BAAQMD)
- Napa County Agricultural Commissioner/California Department of Food and Agriculture (CDFA)/United States Department of Agriculture (USDA) Compliance Agreement No. 28-03-SOD-010 – *Phytophthora* Quarantine
- Emergency Tonnage Waiver due to Fire Emergency Declaration, 11/2/2017

#### **4.5 Required Permitting Documents:**

As part of our facility permit, Napa Recycling has all of the necessary facility documents relating to the site plan, Report of Facility Information, odor management, runoff management, erosion & sediment control, and noise control. This information is included in the the site plan, Report of Facility Information, Transfer Processing Report, Odor Impact Management Plan, Stormwater management plan, and CEQA Negative Declaration documents in in Attachment 4.

#### **4.6 Material Processing & Contamination Protocol:**

Material is received and processed by the protocols stipulated in the Solid Waste Facility Permit and Report of Facility Information.

When a truck enters the facility, it is weighed and the organic material is unloaded from the trailer. Napa Recycling conducts random load checks of incoming material for contaminants. Load checking is done by spreading out the material and having a qualified employee sort through the material, looking for and removing contaminants. The employee who performs the load checks and sorting is trained in the proper methods of sorting, which contaminants to look for and the proper methods of disposing possible contaminants in the load. At a minimum, one truckload, or 10 percent of the truckloads delivering material, whichever is greater, is surveyed each day that the site receives incoming material. Napa Recycling keeps records of load checks performed, the contaminants found, how the contaminants were disposed of, and the loads rejected.

Upon receiving incoming organics, Napa Recycling processes and grinds the material into pieces that are 3 inches or less in size, unless it has been processed elsewhere prior to delivery or is already of adequate size and quality. MDF will process and place material containing food waste under active composting within 48 hours, including co-collected green waste/food waste. Clean green waste containing no food waste will be processed and placed under active composting within 72 hours.

If loads are identified with 5% or 10% contamination levels, employees will take pictures and document the load. The customer will be contacted and outreach is conducted to improve the quality of the loads. For these loads with high levels of contamination, Napa Recycling has included surcharges of \$10/ton and \$20/ton for loads that reach 5% and 10% respectively. With good customer outreach, contamination levels should not reach these levels and Napa Recycling is confident that we can continue to work with Sonoma County customers to make sure this continues to be the case.

#### **4.7 Wood Waste/Woody Overs Management:**

With the current collapse of California's biomass cogeneration infrastructure, Napa Recycling continues to look for alternatives for the woody overs from composting, so they do not just get used for Alternate Daily Cover. Currently there are limited markets for compost overs other than ADC. With our preprocessing system, we are able to remove contaminants on the front end so that the screened overs from the finished product are cleaner and do not have as many contaminants. This will enable us to explore mulch markets in the future

Our long term solution for wood waste and woody overs is the development of our onsite biomass gasification plants. Napa Recycling continues to develop state-of-the-art organics diversion infrastructure and is planning construction of two 1-MW biomass gasification plants. When the biomass gasification plants are fully operational, clean wood (including woody overs) will be used onsite as fuel to provide renewable energy to power the facility and send back into the grid. The system will also produce biochar as a high-quality soil amendment that can be blended with finished compost or sold on its own.

#### **4.8 Compost Marketing Plan:**

Napa Recycling has a fully mature compost marketing program and compost is sold for use throughout the Northern California region for landscaping, agricultural, garden and erosion-control projects. The material is highly sought out and sells out at certain times of the year.

Many of our customers are already located in Sonoma County, and we can expand our web, social media, print and in person outreach to Sonoma County as necessary to increase the promotion of our organic compost in the local region.

Napa Recycling will also supply 350 cubic yards of compost, twice a year to SCWMA member agencies for distribution at no cost to the SCWMA or rate payers.

Compost is thoroughly tested on a monthly basis and the finished composting is certified for use in organic production by the Organic Materials Review Institute (OMRI) and the California Department of Food & Agriculture (CDFA). The compost also is certified with the United States Composting Council's Seal of Testing Assurance (STA), which includes certification for use in CalTrans projects. These certifications assist in marketing the compost to customer standards. See Attachment 5 for compost certifications and a recent compost test.

Napa Recycling has a very competitive rate for compost which currently sells at \$10 per yard, and holds all appropriate certification needed to market the compost as listed for organic production. Napa Recycling sells a large amount of material in bulk to large soil yards/reblenders on a regular basis. This consistent market helps weather any changes in the market. In addition, since our facility relies on customer rates and tip fees for most of the revenue, we are not dependent on compost sales and thus are more resilient to market swings.

Napa Recycling currently produces one bulk finished organic compost product (called "Compost"), along with producing custom blends for certain customers. 100% of our compost currently meets organic certification standards.

Once the facility upgrades are complete, we anticipate offering additional products, including topsoil blends, mulches, biochar, and other products, all of which will meet STA standards.

Napa Recycling is the hauler in the City of Napa and southern Napa County, and conducts customer outreach regarding proper sorting of discards into the correct streams. This enables our collected material to have a low contamination rate. In addition, we work with other jurisdictions (such as Sonoma County), as well as self-haul customers, to provide feedback on their outreach, so their collection programs also have low levels of contamination. In addition to the low contamination levels, our pre-processing equipment help prepare a high-quality feedstock, and our experience in composting creates a high quality, in-demand product.

The Napa Recycling marketing policy is to know available markets well, develop long-term relationships with strong market segments, and to continually provide high quality materials. Napa Recycling understands that high quality material comes from high quality processing facilities, and the community must be well educated on recycling, composting and waste reduction. Napa Recycling's marketing goal is to sell all the compost material recovered, and it has been successful at this over the long-term.

Napa Recycling's objective is to identify cost-effective markets for new materials; this objective enables the expansion of diversion programs and accepted feedstock. Staff has regular contact with numerous end users and material brokers. Over the years, Napa Recycling has developed long-term relationships with a variety of markets and is loyal to those markets; in turn, Napa Recycling has earned a similar loyalty from them.

#### **4.9 Facility Flexibility to Adapt to Changing Regulations and Technologies:**

The Napa MDF is fully permitted and operates a recycling MRF, source separated C&D recycling and organics processing. Additional projects are in development, including biomass gasification, product de-packaging and anaerobic digestion. This means it is not dependent upon one operation for financial stability. The facility is funded largely through City of Napa ratepayers and facility tip fees, which means it is well buttressed for additional regulations, and Napa Recycling and the City of Napa are already planning ahead for new technologies by investing in aerated static pile composting, anaerobic digestion and biomass gasification.

Members of Napa Recycling's management team are active in the California Refuse Recycling Council, California Resource Recovery Association, Northern California Recycling Association, California Compost Coalition and United States Composting Council. This assures that we will stay on top of all new legislation, regulations and developments in the composting industry, assuring that the facilities stay in compliance and up-to-date on the latest composting technologies.

#### **4.10 Ancillary information in support of Form F:**

The sheets in Form F show our pricing and tonnage information. The Napa MDF is permitted to receive 500 tons/day maximum of organics.

Napa Recycling offers SCWMA the guarantee to send a minimum of 26,000 tons/year and a maximum of 46,000 tons/year of organics to the Napa MDF for processing and composting. This comes out to an average of 150 tons/day if brought in 6 days/week.

We also offer the flexibility to receive any of the listed materials at the same price point per ton.

Pricing will be \$50/ton for all materials listed for a 3-year term. Pricing for the longer terms of 10, 15, and 20 years is \$45/ton for all the materials listed.

#### **4.11 Efforts to Minimize Future Litigation:**

Napa Recycling and the City of Napa have developed a fully permitted, modern composting facility that meets or exceeds all regulations and is a well-established good neighbor in the industrial area in which it is located, which greatly assists in minimizing any future litigation. We also do not anticipate any issues with flow control that will be the cause of litigation, as the permit increase allows for increased tonnages, and our Zamora facility allows for additional material to be transferred if necessary.

#### **4.12 Approach to Accepting Non-SCWMA Materials:**

The Napa MDF receives organics from the City of Napa, Napa County, self-haul and contracted customers such as SCWMA. The facility permit has recently been updated to allow for up to 500

tons/day of organics. This allows the long term acceptance of additional materials (including increased self-haul if applicable), and allows for the 3, 10, 15, or 20 year commitments to the described tonnage from SCWMA.

#### **4.13 Safety:**

Napa Recycling & Waste Services is committed to safety for all employees, haulers and visitors.

Please see **Attachment 7** for our complete *Injury & Illness Prevention Plan* with details our approach to worker health & safety, our contamination and hazardous waste management protocol and all health & safety management procedures.

#### **4.14 Reporting:**

Napa Recycling is well-versed in creating detailed reporting for jurisdictions and agencies. With all of the increased reporting coming with AB 901, we are well prepared to provide detailed reporting as needed by the state, partner agencies or other customers.

The City of Napa scale house is fully connected to Soft-Pak's Scale-Pak system, which creates an online database of all inbound and outbound loads at the Napa MDF. Once the data is in the system, it can be downloaded into Excel at any time and reported to SCWMA.

See Attachment 8 for a sample report, with detailed lines for each SCWMA load and also a summary for the month. Reports can be provided monthly, quarterly or as needed as described in the RFP.

The Scale-Pak system also tracks all material sold, including compost, as well as any residual from the different processing areas. This information is also available and can be provided on a monthly and quarterly basis as well.

Complaints and dispute resolutions are also logged in the Soft-Pak system, and these can be provided to the SCWMA in a report as requested.

#### **4.15 Operations:**

Scale procedures, tipping procedures, unloading and turnaround times, load check information and all other operational info for the Napa MDF are detailed in the Transfer Processing Report in Attachment 4.

We have transitioned our organics processing equipment from diesel to electric, and are in the process of converting our vehicle fleet from a mix of CNG and diesel to all CNG.

Facility employees are members of Teamsters Union Local 315 – here is the language of the agreement regarding Strikes or Lockouts:

*Neither the Union, any of its agents, nor any of its members will collectively, concertedly, individually, or in any manner whatsoever engage in, incite or participate in any picketing, strikes, sit-downs, slow-downs, boycotts, work stoppages, sympathy strikes, or interference with the Employer's operations in any way during the term of this Agreement. The Employer agrees that during the term of this Agreement, it shall not lock out any of the employees covered by this Agreement.*

*It shall not be a violation of this Agreement or a cause for discharge, disciplinary action, or permanent replacement for any employee to refuse to enter upon any property or to cross a lawful primary picket line which has been sanctioned by Teamsters Joint Council 7.*

Labor relations have historically been good, but if there was a contract impasse and a strike or lockout were to occur, Napa Recycling will bring in non-union labor during the strike in order to continue operation of the facility.

#### **4.16 Sustainability:**

Napa Recycling & Waste Services strives to be a regional leader in sustainability through waste diversion from landfills, manufacturing organic soil amendments, reducing methane and carbon emissions, producing and using renewable fuels and supporting California's efforts to reach the AB 32 goals.

Our Napa Renewable Resources Project, which has undergone full CEQA review and received a Negative Declaration (included in Attachment 4), is set up to be a carbon negative facility by:

- increasing composting and diverting more organics from the landfill (reducing methane emissions from landfills)
- reducing VOCs and odors through our receiving building and aerated static pile composting
- reducing emissions and noise with electric organics processing equipment,
- converting to an all CNG collection vehicle fleet,
- creating enough renewable CNG through anaerobic digestion to fuel our entire fleet (see Attachment 6),
- creating enough electricity to power the entire facility and sell renewable power back to the grid with biomass gasification (See Attachment 6)
- reducing vehicle emissions by processing wood onsite instead of shipping to co-gen facilities,
- sequestering carbon in the soils with compost and biochar

Our attached 2013 Sustainability Report (Attachment 9) details our efforts to minimize environmental impacts, our net energy consumption, and support the local communities, and our 2018 update of this Report (underway now) will only show that our increase efforts described above are helping decrease emissions and reduce impacts even more.

Our commitment to green, local vendors is also demonstrated in the Environmentally Preferable Purchasing Policy, attached in Attachment 9.

#### **5.0 Forms**

See enclosed Proposal Forms A-G.



1

2       **6 PROPOSAL FORMS**

3       Proposers are required to complete and submit Forms A-L on the following pages as part of their  
4       proposal. Failure to complete and submit the required Forms may result in disqualification from  
5       this RFP process.

6       Form A COMMUNICATION PROTOCOL

7       Form B PROPOSER'S STATEMENT OF ORGANIZATION

8       Form C CERTIFICATION OF NON-GRATUITIES

9       Form D NON-COLLUSION AFFIDAVIT OF PROPOSER

10      Form E ORGANIC WASTE TIPPING FEE PROPOSAL SUMMARY AND SIGNATURE

11      Form F ORGANIC WASTE TIPPING FEE PROPOSAL

12      Form G PASS/FAIL REQUIREMENTS

13

14

15

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**Form A  
COMMUNICATION PROTOCOL**

The Sonoma County Waste Management Agency (SCWMA) commits to a procurement process for Organics Processing Capacity to be open, objective, and carefully monitored. The following rules will be adhered to and enforced.

Until the SCWMA Board of Directors awards the Organic Materials Processing Services Agreement, all contact between participants, participant's sub-contractors, participant's sub-consultants, participant's affiliates, participants lobbyists, legal or political advisors, or any individual or entity that may be assisting the participant in preparing a response to this request for proposals, or providing work to the participant should participant be selected, and SCWMA, shall be in writing, either by email or mail to:

**Patrick Carter**  
Executive Director, Sonoma County Waste Management Agency  
2300 County Center Dr., B-100, Santa Rosa, CA 95403  
(707) 565-3579  
Patrick.Carter@sonoma-county.org

All communications between the SCWMA and a participant, along with the related responses, will be transmitted simultaneously to all participants that have signed into and attended the MANDATORY pre-proposal conference and will be included as part of the evaluation record.

Any participant who fails to recognize or utilize this process of communication will be notified of its violation and may be subject to disqualification from the selection process at the sole discretion of the SCWMA.

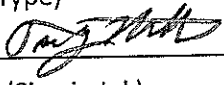
Any attempt to contact or directly interact with any elected or appointed official for the purpose of obtaining information or influencing the Request for Proposal Process, including the selection process, Form A will be grounds for determination of non-compliance and disqualification from the selection process.

All participants must acknowledge and sign this statement as part of the RFP process. All participants must provide a signed **ORIGINAL** of this statement by the close of the **MANDATORY** pre-proposal conference. Participants that do not provide this signed statement will be disqualified from this procurement process.

On behalf of my company/agency, I understand and accept the rules established in this statement.

Company Name: Napa Recycling & Waste Services  
(Print or Type)

Representative: \_\_\_\_\_ Title: Tim Dewey-Mattia, Recycling & Public Education Mgr.  
(Print or Type)

Signature  Date: 6/28/17  
(Sign in Ink)

**Form B**  
**PROPOSER'S STATEMENT OF ORGANIZATION**

1. Full Name of Business Concern (Proposer):

Napa Recycling & Wste Services, LLC

Principal Business Address:

820 Levitin Way

Napa, CA 94558

2. Principal Contact Person(s):

Name: Greg Kelley

Phone Number: 707-287-1961

3. Form of Business Concern:

☐ Corporation ☐ Partnership ☐ Joint Venture Other LLC

4. Provide names of partners or offices as appropriate and indicate if the individual has the authority to sign in name of Proposer. Provide proof of the ability of the individuals so named to legally Bind the Proposer.

Name

Address

Title

Greg Kelley

POBox239,NapaCA94559 Managing Member

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

5. If a corporation, in what state incorporated: CA

Date Incorporated: 8

19

2004

Month

Day

Year

6. If a Joint Venture or Partnership, date of Agreement: \_\_\_\_\_

**Form B**  
**PROPOSER'S STATEMENT OF ORGANIZATION**

7. List all subcontractors participating in this Organic Materials Processing Services Agreement:

Name	Address
a) _____	_____
b) _____	_____
c) _____	_____
d) _____	_____

8. Outline specific areas of responsibility for each firm listed in Question 7.

a) \_\_\_\_\_

b) \_\_\_\_\_

c) \_\_\_\_\_

d) \_\_\_\_\_

9. Identify the provisions of any agreement between parties which assigns legal or financial liabilities or responsibilities:

\_\_\_\_\_

10. If responding firm(s) are a partially or fully-owned subsidiary of another firm, or share common ownership with another firm, please identify the firms and relationships.

\_\_\_\_\_

**Form C**  
**CERTIFICATION OF NON-GRATUITIES**

**TO: THE SONOMA COUNTY WASTE MANAGEMENT AGENCY**

**CERTIFICATION**

This is a written certification, signed under penalty of perjury, stating that no persons acting on behalf of Napa Recycling and Waste services, LLC has paid, or offered or attempted to pay, any elected or appointed official, officer or employee of the SCWMA any compensation or consideration, in any form whatsoever, in connection with obtaining or entering into this Organic Materials Processing Services Agreement.

Greg Kelley

Managing Member

Name

Title

Signature


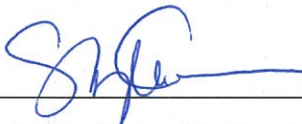
Date



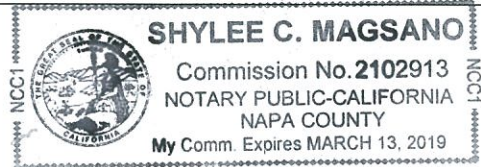
1-9-18

<b>Form D</b> <b>NON-COLLUSION AFFIDAVIT OF PROPOSER and</b> <b>DISCLOSURE OF NON-COMPETE AGREEMENTS</b>	
<p>State of <u>California</u> County of <u>Napa</u></p> <p style="padding-left: 40px;"><u>Greg Kelley</u>, being duly sworn, deposes and says that:</p> <ol style="list-style-type: none"> <li>1. He/She is <u>Managing Member of Napa Recycling &amp; Waste Services, LLC</u>, the Proposer that has submitted the attached proposal;</li> <li>2. He/She is fully informed respecting the preparation and contents of the attached proposal and of all pertinent circumstances respecting such proposal;</li> <li>3. Such proposal is genuine and is not a collusive or sham proposal;</li> <li>4. Neither said Proposer nor any of its officers, partners, owners, agents, representatives, employees, or parties in interest, including this affiant, has in any way colluded, connived, or agreed, directly or indirectly, with any other Proposer, firm or person to submit a collusive or sham proposal in connection with the Organic Materials Processing Services Agreement for which the attached proposal has been submitted or to refrain from proposing in connection with such Organic Materials Processing Services Agreement, or has in any manner, directly or indirectly, sought by agreement or collusion or communication or conference with any other Proposer, firm, or person to fix the price or prices in the attached RFP, or of any other Proposer, or to fix any overhead, profit or cost component of the proposal or the response of any other Proposer, or to secure through any collusion, connivance, or unlawful agreement any advantage against The Sonoma County Waste Management Agency or any person interested in the proposed Organic Materials Processing Services Agreement; and</li> <li>5. The tipping fee proposal in the attached RFP are fair and proper and are not tainted by any collusion, conspiracy, connivance, or unlawful agreement on the part of the Proposer or any of its agents, representatives, owners, employees, or parties in interest, including this affiant.</li> <li>6. Proposer must list the name of any and all other solid waste service providers and/or affiliates that it has a "non-compete" agreement with that prohibits the other solid waste services provider from proposing on services as requested in this RFP. Failure to disclose this information will result in immediate disqualification from this RFP process.</li> </ol> <div style="margin-top: 20px;"> <hr style="border: 0; border-top: 1px solid black; margin-bottom: 5px;"/> <hr style="border: 0; border-top: 1px solid black; margin-bottom: 5px;"/> <hr style="border: 0; border-top: 1px solid black; margin-bottom: 5px;"/> <hr style="border: 0; border-top: 1px solid black; margin-bottom: 5px;"/> <hr style="border: 0; border-top: 1px solid black; margin-bottom: 5px;"/> </div>	



Form D NON-COLLUSION AFFIDAVIT OF PROPOSER and DISCLOSURE OF NON-COMPETE AGREEMENTS	
 _____ (Signed)	<u>Managing Member</u> (Title)
Subscribed and sworn to before me this <u>9</u> day of <u>January, 2018</u> .	
 _____ Notary Public, State of California	My Commission Expires: <u>03-18-2019</u>

19



# JURAT

A notary public or other officer completing this certificate verifies only the identity of the individual who signed the document to which this certificate is attached, and not the truthfulness, accuracy, or validity of that document.

State of California

County of Napa

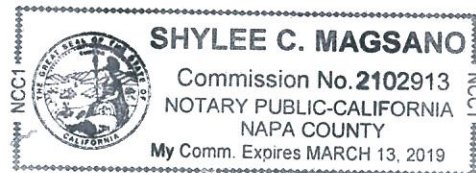
Subscribed and sworn to (or affirmed) before me on this 9th day of January,  
20 18 by Gregory William Kelley

proved to me on the basis of satisfactory evidence to be the person(s) who appeared before me.

Signature



(Seal)



## OPTIONAL INFORMATION

### DESCRIPTION OF THE ATTACHED DOCUMENT

Non-collusion Affidavit  
(Title or description of attached document)

(Title or description of attached document continued)

Number of Pages 1 Document Date 1/9/18

Additional information

## INSTRUCTIONS

The wording of all Jurats completed in California after January 1, 2015 must be in the form as set forth within this Jurat. There are no exceptions. If a Jurat to be completed does not follow this form, the notary must correct the verbiage by using a jurat stamp containing the correct wording or attaching a separate jurat form such as this one with does contain the proper wording. In addition, the notary must require an oath or affirmation from the document signer regarding the truthfulness of the contents of the document. The document must be signed AFTER the oath or affirmation. If the document was previously signed, it must be re-signed in front of the notary public during the jurat process.

- State and county information must be the state and county where the document signer(s) personally appeared before the notary public.
- Date of notarization must be the date the signer(s) personally appeared which must also be the same date the jurat process is completed.
- Print the name(s) of the document signer(s) who personally appear at the time of notarization.
- Signature of the notary public must match the signature on file with the office of the county clerk.
- The notary seal impression must be clear and photographically reproducible. Impression must not cover text or lines. If seal impression smudges, re-seal if a sufficient area permits, otherwise complete a different jurat form.
  - ❖ Additional information is not required but could help to ensure this jurat is not misused or attached to a different document.
  - ❖ Indicate title or type of attached document, number of pages and date.
- Securely attach this document to the signed document with a staple.



**Form E**  
**ORGANIC WASTE TIPPING FEE PROPOSAL**  
**SUMMARY AND SIGNATURE**

In preparing the Tipping Fee Proposal Forms Proposers should be aware of the following:

All organic materials processing tipping fees proposed on these forms for ***Sonoma County Waste Management Agency*** shall be fixed through December 31, 2020 or one (1) year after the Effective Date and should reflect service requirements as specified in the Organic Materials Processing Services Agreement.

The Undersigned hereby certifies as follows:

That I have personally and carefully examined the specifications and instructions for the work to be done as set forth in Sections 1 – 6 of this RFP and the Draft Organic Materials Processing Services Agreement (Attachment A or Attachment B).

That I have made examination of the services as applicable to the proposal, and fully understand the character of the work to be done.

That, having made the necessary examination, the undersigned hereby proposes to furnish all materials, vehicles, plant, equipment and facilities, and to perform all labor and services which may be required to do said work with the time fixed and upon the terms and conditions provided in the Organic Materials Processing Services Agreement, at the tipping fees set forth on the Tipping Fee Proposal Forms set forth below:

PROPOSER Napa Recycling & Waste Services, LLC

President/Partner/Owner Greg Kelley

Secretary Mike Murray

Firm Name Napa Recycling & Waste Services, LLC

Individual: ☐ Partnership: ☐ Joint Venture ☐

Corporation LLC, A California Corporation (State of Incorporation)

**Signature Instructions:**

If business is a CORPORATION, name of the corporation should be listed in full and both President and Secretary must sign the form, OR if one signature is permitted by corporation by-laws, a copy of the by-laws shall be furnished to the SCWMA as part of the proposal.

If business is a PARTNERSHIP, the full name of each partner should be listed followed by d/b/a (doing business as) and firm or trade name; any one partner may sign the form. If the business is INDIVIDUAL PROPRIETORSHIP, the name of the owner should appear followed by d/b/a and name of the company.

If business is a JOINT VENTURE, the full name of each joint venturer should be listed in full and each joint venturer must sign the form, OR if one signature is permitted by the joint venture agreement or by-laws, a copy of the agreement or by-laws shall be furnished to the SCWMA as

**Form E**  
**ORGANIC WASTE TIPPING FEE PROPOSAL**  
**SUMMARY AND SIGNATURE**

part of the proposal.

Signature: 

Date 1-9-18



**Form F**  
**ORGANIC WASTE TIPPING FEE PROPOSAL**

Form F is provided in an Excel spreadsheet, Attachment C SCWMA RFP Section 6 Form F Excel.

Form F shall be submitted in hard copy format and via USB drive in Microsoft Excel format.

Sonoma County Waste Management Agency Request for Proposals for Organics Processing Capacity  
Proposed Organic Waste Per Ton Rate and Annual Tonnages by Category

**Form F-1: 3-Year Term**

<b>Proposer Name</b>	Napa Recycling & Waste Services			<b>Facility Name</b>	Napa Materials Diversion Facility		
<b>Anticipated Start Date of Organics Processing Service (First Date of Delivery)</b>	Already accepting SCWMA material and can continue			<b>Facility Address</b>	820 Levitin Way, American Canyon		
<b>Composting, Anaerobic Digester or Other Technology?</b>	Composting						
<b>Organic Material Type</b>	<b>Per Ton Rate by Annual Throughput in Tons</b>						
	0-10,000 Tons	10,000-20,000 Tons	20,000-40,000 Tons	40,000-60,000 Tons	60,000-80,000 Tons	80,000-100,000 Tons	100,000 - 120,000 Tons
	For material categories and/or tonnage ranges that are not proposed enter "NA". Do not enter a per ton tip rate for any material categories and/or tonnage ranges that are not proposed. Find instructions for filling out Form F in Section 3.6 of the RFP.						
Wood Waste			\$50.00	\$50.00			
Green Waste			\$50.00	\$50.00			
Mixed Organics			\$50.00	\$50.00			
Mixed Organics with Compostable Food Ware			\$50.00	\$50.00			
Commercial Food Scraps			\$50.00	\$50.00			
Commercial Food Scraps with Compostable Food Ware			\$50.00	\$50.00			
<i>Biosolids (Not subject to SCWMA flow control or Processing Agreement, for Agency Information Only)</i>			NA	NA			
<i>Manure (Not subject to SCWMA flow control or Processing Agreement, for Agency Information Only)</i>			\$50.00	\$50.00			
<b>Total Minimum, Maximum and Average Daily Tonnage Throughput (All Categories)</b>	<u>MINIMUM</u>	no daily minimum		<u>MAXIMUM</u>	150 tons/day, 6 days/week	<u>AVE. DAILY</u>	150 tons/day, 6 days/week
<b>Total Minimum, Maximum and Annual Tonnage Throughput (All Categories)</b>	<u>MINIMUM</u>	26,000 tons/year		<u>MAXIMUM</u>	46,800 tons/year		
<b>Optional Adjustments</b>							
OPTIONAL Contamination charge at 5% threshold		\$10/ton	per contaminated load				
OPTIONAL Contamination charge at 10% threshold		\$20/ton	per contaminated load				
OPTIONAL Other:		\$0.00	per occurrence				
OPTIONAL Other:		\$0.00	per occurrence				
OPTIONAL Other:		\$0.00	per occurrence				



Sonoma County Waste Management Agency Request for Proposals for Organics Processing Capacity  
Proposed Organic Waste Per Ton Rate and Annual Tonnages by Category  
**Form F-2: 10-Year Term**

Proposer Name	Napa Recycling & Waste Services			Facility Name		Napa Materials Diversion Facility	
Anticipated Start Date of Organics Processing Service (First Date of Delivery)	Already accepting SCWMA material and can continue			Facility Address		820 Levitin Way, American Canyon	
Composting, Anaerobic Digester or Other Technology?	Composting						
Organic Material Type	Per Ton Rate by Annual Throughput in Tons						
	0-10,000 Tons	10,000-20,000 Tons	20,000-40,000 Tons	40,000-60,000 Tons	60,000-80,000 Tons	80,000-100,000 Tons	100,000 - 120,000 Tons
	For material categories and/or tonnage ranges that are not proposed enter "NA". Do not enter a per ton tip rate for any material categories and/or tonnage ranges that are not proposed. Find instructions for filling out Form F in Section 3.6 of the RFP.						
Wood Waste			\$45.00	\$45.00			
Green Waste			\$45.00	\$45.00			
Mixed Organics			\$45.00	\$45.00			
Mixed Organics with Compostable Food Ware			\$45.00	\$45.00			
Commercial Food Scraps			\$45.00	\$45.00			
Commercial Food Scraps with Compostable Food Ware			\$45.00	\$45.00			
Biosolids (Not subject to SCWMA flow control or Processing Agreement, for Agency Information Only)			NA	NA			
Manure (Not subject to SCWMA flow control or Processing Agreement, for Agency Information Only)			\$45.00	\$45.00			
Total Minimum, Maximum and Average Daily Tonnage Throughput (All Categories)	MINIMUM	no daily minimum		MAXIMUM	150 tons/day, 6 days/week	AVE. DAILY	150 tons/day, 6 days/week
Total Minimum, Maximum and Annual Tonnage Throughput (All Categories)	MINIMUM	26,000 tons/year		MAXIMUM	46,800 tons/year		
Optional Adjustments							
OPTIONAL Contamination charge at 5% threshold		\$10/ton	per contaminated load				
OPTIONAL Contamination charge at 10% threshold		\$20/ton	per contaminated load				
OPTIONAL Other:		\$0.00	per occurrence				
OPTIONAL Other:	\$0.00	\$0.00	per occurrence				
OPTIONAL Other:	\$0.00	\$0.00	per occurrence				

Sonoma County Waste Management Agency Request for Proposals for Organics Processing Capacity  
Proposed Organic Waste Per Ton Rate and Annual Tonnages by Category

**Form F-3: 15-Year Term**

Proposer Name	Napa Recycling & Waste Services			Facility Name	Napa Materials Diversion Facility		
Anticipated Start Date of Organics Processing Service (First Date of Delivery)	Already accepting SCWMA material and can continue			Facility Address	820 Levitin Way, American Canyon		
Composting, Anaerobic Digester or Other Technology?	Composting						
Organic Material Type	Per Ton Rate by Annual Throughput in Tons						
	0-10,000 Tons	10,000-20,000 Tons	20,000-40,000 Tons	40,000-60,000 Tons	60,000-80,000 Tons	80,000-100,000 Tons	100,000 - 120,000 Tons
	For material categories and/or tonnage ranges that are not proposed enter "NA". Do not enter a per ton tip rate for any material categories and/or tonnage ranges that are not proposed. Find instructions for filling out Form F in Section 3.6 of the RFP.						
Wood Waste			\$45.00	\$45.00			
Green Waste			\$45.00	\$45.00			
Mixed Organics			\$45.00	\$45.00			
Mixed Organics with Compostable Food Ware			\$45.00	\$45.00			
Commercial Food Scraps			\$45.00	\$45.00			
Commercial Food Scraps with Compostable Food Ware			\$45.00	\$45.00			
<i>Biosolids (Not subject to SCWMA flow control or Processing Agreement, for Agency Information Only)</i>			NA	NA			
<i>Manure (Not subject to SCWMA flow control or Processing Agreement, for Agency Information Only)</i>			\$45.00	\$45.00			
Total Minimum, Maximum and Average Daily Tonnage Throughput (All Categories)	MINIMUM	no daily minimum		MAXIMUM	150 tons/day, 6 days/week	AVE. DAILY	150 tons/day, 6 days/week
Total Minimum, Maximum and Annual Tonnage Throughput (All Categories)	MINIMUM	26,000 tons/year		MAXIMUM	46,800 tons/year		
Optional Adjustments							
OPTIONAL Contamination charge at 5% threshold		\$10/ton	per contaminated load				
OPTIONAL Contamination charge at 10% threshold		\$20/ton	per contaminated load				
OPTIONAL Other:		\$0.00	per occurrence				
OPTIONAL Other:	\$0.00	\$0.00	per occurrence				
OPTIONAL Other:	\$0.00	\$0.00	per occurrence				

Sonoma County Waste Management Agency Request for Proposals for Organics Processing Capacity  
Proposed Organic Waste Per Ton Rate and Annual Tonnages by Category

**Form F-4: 20-Year Term**

Proposer Name	Napa Recycling & Waste Services			Facility Name	Napa Materials Diversion Facility		
Anticipated Start Date of Organics Processing Service (First Date of Delivery)	Already accepting SCWMA material and can continue			Facility Address	820 Levitin Way, American Canyon		
Composting, Anaerobic Digester or Other Technology?	Composting						
Organic Material Type	Per Ton Rate by Annual Throughput in Tons						
	0-10,000 Tons	10,000-20,000 Tons	20,000-40,000 Tons	40,000-60,000 Tons	60,000-80,000 Tons	80,000-100,000 Tons	100,000 - 120,000 Tons
	For material categories and/or tonnage ranges that are not proposed enter "NA". Do not enter a per ton tip rate for any material categories and/or tonnage ranges that are not proposed. Find instructions for filling out Form F in Section 3.6 of the RFP.						
Wood Waste			\$45.00	\$45.00			
Green Waste			\$45.00	\$45.00			
Mixed Organics			\$45.00	\$45.00			
Mixed Organics with Compostable Food Ware			\$45.00	\$45.00			
Commercial Food Scraps			\$45.00	\$45.00			
Commercial Food Scraps with Compostable Food Ware			\$45.00	\$45.00			
<i>Biosolids (Not subject to SCWMA flow control or Processing Agreement, for Agency Information Only)</i>			NA	NA			
<i>Manure (Not subject to SCWMA flow control or Processing Agreement, for Agency Information Only)</i>			\$45.00	\$45.00			
Total Minimum, Maximum and Average Daily Tonnage Throughput (All Categories)	MINIMUM	no daily minimum		MAXIMUM	150 tons/day, 6 days/week	AVE. DAILY	150 tons/day, 6 days/week
Total Minimum, Maximum and Annual Tonnage Throughput (All Categories)	MINIMUM	26,000 tons/year		MAXIMUM	46,800 tons/year		
Optional Adjustments							
OPTIONAL Contamination charge at 5% threshold		\$10/ton	per contaminated load				
OPTIONAL Contamination charge at 10% threshold		\$20/ton	per contaminated load				
OPTIONAL Other:		\$0.00	per occurrence				
OPTIONAL Other:	\$0.00	\$0.00	per occurrence				
OPTIONAL Other:	\$0.00	\$0.00	per occurrence				

**Form G**  
**PASS/FAIL REQUIREMENTS**

**PROPOSER NAME:** Napa Recycling & Waste Services, LLC  
(name of the entity that will sign the Organic Materials Processing Services Agreement in the event one is awarded)

Key Contact Information

**Name:** Greg Kelley  
**Title:** Managing Member  
**Address:** PO Box 239, Napa CA 94559  
**Telephone Number:** 707-287-1961  
**Fax Number:** 707-224-2707

**Required Attachments:**

Each Proposer must include the following attachments in the separate sealed "Pass/Fail Requirements" envelope:

A copy of Form A Communication Protocol, as completed on the date of the **MANDATORY** pre-proposal conference.

A written statement acknowledging receipt of any and all addenda to this RFP document, and a signed copy of each addendum with the date of receipt clearly displayed next to each signature.

**The Proposal Bond of \$25,000.**

A letter from Proposer's bank/financial institution clearly stating that the Proposer has adequate assets and/or irrevocable line of credit that is sufficient to compensate for all required payments to the SCWMA, capital costs, equipment costs, start-up costs, and a minimum of three (3) months' operating costs.

**The Undersigned hereby certifies as follows (initial next to each statement):**

SK The Proposer has attended the **MANDATORY** pre-proposal conference held on June 28, 2017 at 11:00 a.m. PDT.

SK The Proposer certifies that Proposer has personally and carefully examined the specifications and instructions for the work to be done as set forth in Sections 1 – 6 of this RFP.

SK The Proposer certifies that Proposer has personally and carefully examined the specifications and requirements as set forth in the Draft Organic Materials Processing Services Agreement.

SK The Proposer certifies that Proposer has personally and carefully examined the specifications and requirements of the ***Sonoma Countywide Integrated Waste Management Plan***.

SK The Proposer certifies that Proposer has personally and carefully examined the specifications and requirements of the ***Sonoma County Waste Management Agency Joint Exercise of Powers Agreement***, and all subsequent amendments.

SK The Proposer certifies that Proposer has made an examination of the services as applicable to



**Form G**  
**PASS/FAIL REQUIREMENTS**

the proposal, and fully understands the character of the work to be done.

SK The Proposer warrants that the requirements of the Draft Organic Materials Processing Services Agreement as described in this RFP, its enclosures, and all addenda have been thoroughly reviewed and the Proposer has conducted all due diligence necessary to confirm material facts upon which the proposal is based.

SK (For long-term Agreements only) The Proposer agrees to submit a **Performance Bond** in the amount of **One Million Dollars (\$1,000,000)** effective within ten (10) calendar days from the date the SCWMA Board approves the Agreement(s).

SK The Proposer acknowledges the validity of the proposal contents, including proposed Organic Materials Processing Tipping Fees and pricing for a period of one hundred eighty (180) days from the proposal due date.

Having made the necessary examination, the undersigned hereby proposes to furnish all materials, vehicles, plant, equipment, and facilities, and to perform all labor and services which may be required to do said work within the time fixed and upon the terms and conditions provided in the Organic Materials Processing Services Agreement, at the tipping fees set forth on Form F:

PROPOSER NAME Napa Recycling & Waste Services, LLC  
(name of the entity that will sign the Organic Materials Processing Services Agreement)

President/Partner/Owner Greg Kelley

Secretary Michael Murray

Firm Name Napa Recycling & Waste Services, LLC

Individual: ☐ Partnership: ☐ Joint Venture: ☐

Corporation LLC, A California Corporation (State of Incorporation)

Signature  

Date 1-9-18

**Signature Instructions:**

If business is a CORPORATION, name of the corporation should be listed in full and both President and Secretary must sign the form, OR if one signature is permitted by corporation by-laws, a copy of the by-laws shall be furnished to the SCWMA as part of the proposal.

If business is a PARTNERSHIP, the full name of each partner should be listed followed by d/b/a (doing business as) and firm or trade name; any one partner may sign the form. If the business is INDIVIDUAL PROPRIETORSHIP, the name of the owner should appear followed by d/b/a and name of the company.

If business is a JOINT VENTURE, the full name of each joint venturer should be listed in full and each joint venturer must sign the form, OR if one signature is permitted by the joint venture agreement or by-laws, a copy of the agreement or by-laws shall be furnished to the SCWMA as part of the proposal.



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**6.0 Service Exceptions/Alternatives:**

We have no service exceptions or alternatives to the RFP.



## **7.0 Appendix**

### **Attachment 1: Key staff resumes**

**GREG KELLEY**

General Manager/Managing Member  
Napa Recycling & Waste Services  
Napa County Recycling & Waste Services  
Northern Recycling  
PO Box 239  
Napa, CA 94559  
(707) 603-1181  
(707) 224-2707 (fax)  
[greg@naparecycling.com](mailto:greg@naparecycling.com)

- Mr. Kelley currently is the General Manager of Napa Recycling & Waste Services/Napa County Recycling & Waste Services and the President of 600 Tower Road Operations (dba Valley Recycling & Disposal). Napa Recycling/Napa County Recycling are a consortium of four entities providing collection, recycling, processing and transfer services to the City of Napa and southern Napa County, and operation of the Napa Recycling & Composting Facility.
- He is also the Managing Member for: Northern Recycling & Waste Services (Paradise), Northern Recycling Operations & Waste Services (Devlin Road Recycling & Transfer Facility) and Northern Recycling (Zamora).
- Previously, Greg was the General Manager of Napa Garbage Service & Napa Valley Disposal. He managed recycling and garbage operations in the cities of Napa and American Canyon and in the County of Napa. He also managed the curbside recycling contract for the City of Vallejo.
- Greg has extensive experience in the design and implementation of recycling, composting and solid waste system roll outs for several communities. He is responsible for negotiating many government and municipal service contracts covering the full range of solid waste services. Greg has considerable experience in union and non-union operations and negotiated many collective bargaining contracts.
- Greg earned a BA in Economics from the University of Oregon.

**Napa Recycling**  
& WASTE SERVICES



[www.naparecycling.com](http://www.naparecycling.com)

## **MICHAEL A. MURRAY**

Chief Financial Officer  
Napa Recycling  
Napa County Recycling  
Northern Recycling

CPA (inactive)

PO Box 239  
Napa, CA 94559  
707.256.3500  
[mike@naparecycling.com](mailto:mike@naparecycling.com)

Mr. Murray is a certified public accountant with over twenty five years of experience in the public and private sectors.

Through Mike's career, he has worked for and with manufacturing and service oriented companies with revenues ranging from \$10 million to over \$400 million.

Mike has been involved in the waste hauling and recycling business since 1998.

He currently serves as the Chief Financial Officer of Napa Recycling & Waste Services, Napa County Recycling & Waste Services, 600 Tower Road Operations, Northern Recycling & Waste Services, Northern Recycling Operations & Waste

Services, and Northern Recycling.

In 2004, Mike joined the Napa Recycling group as a consultant to assist the group in preparing their proposals to the City of Napa and County of Napa.

Mike has also served as the controller for Napa Garbage Service, Napa Valley Disposal, American Canyon Disposal, and Golden State Debris Box and as a consultant to Waste Management.

Mike has also served as the chief financial officer for a privately owned human resources agency and as a partner of a large local CPA firm located in St. Helena.

Mike has been involved with obtaining and managing credit facilities ranging from \$1 million to over \$20 million through his involvement with the Napa Recycling group. Most recently, he has been involved with obtaining credit facilities through the California Pollution Control Financing Authority.

Mike was born, raised and resides in Napa Valley. He enjoys the

beauty of the wine country and is passionate about fine wine collecting. He also enjoys playing golf, bocce ball and hanging out with his nephews, Colin and Ian. Mike is involved with the Boys & Girls Clubs of Napa Valley. He has also served as president of Napa Sunrise Rotary.

Mike has also been a member of the City of Napa Planning Commission since 2011.

## TIMOTHY C. DEWEY-MATTIA

tim@naparecycling.com.....820 Levitin Way ~ PO Box 239, Napa, CA 94559.....(707) 255-5200 x1204

### CURRENT EXPERIENCE

11/2005-present **NAPA RECYCLING & WASTE SERVICES**

Napa, CA

Napa County Recycling & Waste Services  
Northern Recycling

- **Recycling & Public Education Manager** – public face of Napa’s service provider; working towards zero waste
- Partnered with City and County on new recycling incentive-based contracts; generated monthly reports
- Rolled out full residential & commercial food composting programs; established special event diversion programs
- Designed outreach, PR, and advertising materials, informed public through website, print media & radio
- Increased recycling participation and streamlined service through business assessments and route audits
- Presented at state & regional conferences, attended public meetings & coordinated sustainability task forces
- Partnered on regional waste reduction campaigns, pushed for additional recycling and composting legislation
- Organized largest electronics recycling events in state; educated school groups, led facility tours
- Researched and wrote proposals resulting in 3 additional service & processing contracts in Northern CA: Paradise’s service provider, the Zamora Composting Facility, and Napa’s Devlin Road Transfer Facility
- Collaborated on successful grant applications, including anaerobic digestion & organics de-packaging
- Current board member of the Northern California Recycling Association (NCRA)

#### Napa’s recycling & composting highlights:

- ♻ Surpassed all state diversion goals; unincorporated south Napa County has one of the state’s 5 highest diversion rates – the percentage of material recycled or composted is consistently near 75%.
- ♻ Established the first full scale food composting programs in the North Bay – thousands of tons of food scraps have been diverted from the landfill since the program’s initial inception in 2008.
- ♻ Assisted in outreach and development of state-of-the-art organics facility in Napa, with organics pre-processing, full food composting, food de-packaging, and future covered composting, biomass gasification & anaerobic digestion
- ♻ Since 2006, Napa Recycling has recycled or composted over a million tons of material. By keeping these valuable resources out of the landfill, we decreased carbon dioxide emissions by nearly a million metric tons and used over 6 billion fewer BTUs of energy. To put it in perspective, these savings are the equivalent of saving over 70 million gallons of gasoline, helping to fight climate change and reduce our dependency on foreign oil.
- ♻ Napa Recycling has implemented a comprehensive zero waste special event program that has recycled or composted an average of 70% at over 500 Napa County events, including 75% at BottleRock.
- ♻ Napa Recycling consistently receives fewer than two complaints per month from over 28,000 customers.
- ♻ Youth education – led recycling center tours for thousands of students, mentored students on leadership projects, developed innovative presentations and designed recycling and composting zero waste programs at several local schools.
- ♻ Created multiple educational campaigns, including “Recycling Saves,” “Recycle More,” and “Compost it!”
- ♻ Napa Recycling partners with Napa County businesses on waste reduction and recycling audits for businesses seeking green certification – over 100 businesses are now certified Napa County-wide. Napa Recycling works closely with Napa’s wineries, restaurants and resorts to develop cutting-edge, comprehensive zero waste programs – creating models for all others in the hospitality industry.
- ♻ Pioneered free curbside pickup of e-waste, appliances, clothing and more with Recycle More program - over 1 million pounds of electronics are recycled each year by City and County of Napa residents and businesses
- ♻ Thousands of tons of grape pomace from South County wineries are turned into organic compost, which returns to the earth as a valuable soil amendment and closes the loop locally and sustainably.
- ♻ Visited facilities in Germany to research cutting-edge composting and anaerobic digestion technology.
- ♻ Successfully obtained organic listing from the Organic Materials Review Institute (OMRI) and California Department of Food & Agriculture (CDFA), as well as the Seal of Testing Assurance (STA) from the United States Composting Council for Napa’s compost.
- ♻ Designed **www.naparecycling.com** as a one-stop shop for waste reduction and recycling resources in Napa County, and created a social media presence on Facebook and Twitter.

## PAST EXPERIENCE

- 11/2005 **GREEN FESTIVAL** San Francisco, CA
- **Greening Manager** at country's largest sustainability event (sponsored by Global Exchange & Co-op America)
  - Managed composting, recycling, & trash, coordinated staff & volunteers, conducted vendor & public outreach
  - Diverted nearly 10½ tons at event with over 20,000 attendees, achieved 83% diversion rate
- 1/2003-8/2005 **SAN FRANCISCO CLEAN CITY COALITION** San Francisco, CA
- **Outreach and Recycling Coordinator** for organization dedicated to cleaning and greening the city
  - Served as **San Francisco County Coordinator** for Coastal Cleanup Day – world's largest volunteer event
  - Recruited thousands of volunteers for Community Clean Team events in neighborhoods throughout S.F.
  - Cooperated daily with city agencies, neighborhood groups, businesses, merchant associations, and non-profits
  - Consultant to SF Dept. of Environment - developed special event recycling program, determined best practices
  - Compiled recycling resources, drafted city permits, conducted trainings, diverted up to 93% of event waste
  - Supervised transitional employment crews; wrote grants; tabled at events; attended community meetings
  - Managed Tool Lending Center - oversaw site relocation, revamped database, increased program visibility
- Summer 2002 **YELLOWSTONE TO YUKON CONSERVATION INITIATIVE** Canmore, Alberta
- Biked 2682 miles from Yellowstone N.P. to Anchorage, AK; crossed Continental Divide 5 times
  - Gathered first-hand accounts of people and places, worked to protect natural heritage of region
  - Spread the Y2Y message through interviews, articles, and post-trip presentations
- 9/2000-6/2002 **SAN FRANCISCO CONSERVATION CORPS (AmeriCorps)** San Francisco, CA
- 1-year **AmeriCorps** service with SFCC's **Recycling Outreach Team**; ran Presidio recycling program
  - Hired as **Recycling Operations Supervisor** after completion of service; trained and coordinated new team
  - Day-to-day operations, set up accounts, expanded public bin program, collected 10 tons a month
  - Designed new education center, wrote lesson plans, hosted weekly recycling education groups (K-adult)
  - Gave presentations to Dept. of Conservation; Attended CA Resource Recovery Association conference
  - Part of sustainability program in new National Park; native plant restoration, Adopt-a-Beach programs
  - Planned MLK day of service – service work and education project for hundreds of middle-schoolers
- Summer 2000 **RUTLAND REGIONAL PLANNING COMMISSION** Rutland, VT
- Orton Family Foundation internship in ArcView GIS and community planning at RRPC
  - Beta tested new CommunityViz software on the town of Brandon's potential U.S. 7 bypass project
  - Created interactive 3D scenes, built bypass scenarios and simulated future policy and development
  - Responsible for day-to-day software enhancement, wrote bug reports, collected demographic data
  - Nationwide conference calls with town officials, regional planners, and software developers
- 1996-2000 **MIDDLEBURY COLLEGE RECYCLING** Middlebury, VT
- Assisted in program planning, outreach, and training for cutting-edge college recycling program
  - Collected, sorted, and baled recycling, drove van, set up bins, helped achieve campus recycling rate of 64%

## EDUCATION

- 1996-2000 **MIDDLEBURY COLLEGE** Middlebury, VT
- **B.A. May 2000:** Geography/History Joint Major, Italian minor, significant Env. Studies coursework
  - Dean's List, College Scholar, Honors on Geography comprehensive exam, Italian Honor Society
  - Senior Thesis: "The Unique Disappearance of an Ethnic Enclave: Italians in the North End of Barre, VT"
  - Junior Thesis: "A Dive into Divestment, Student Protest, & American Political Cycles"
  - GIS seminar: Created interactive ArcView module on Yosemite Valley planning & development
  - Fall 1998: Attended Middlebury College School in Florence, Italy (All classes taught in Italian)
  - Winter 1999: Studied park planning, sustainable development & environmental education at Yosemite Institute
  - Past **President** of Middlebury College San Francisco Bay Area alumni chapter
- 2011-12 **CALIFORNIA REFUSE RECYCLING COUNCIL** Northern California
- Completed CRRC's Next Generation Management & Leadership Training Program

# WILLIAM KELLEY

1354 Milton Rd., Napa, Ca, 94559 · 707-738-3263

[willk@naparecycling.com](mailto:willk@naparecycling.com) ·

## EXPERIENCE

2013 TO PRESENT

**RESOURCE MANAGER,** NAPA RECYCLING AND WASTE SERVICES

Managing the flow of incoming organic, compostable and wood waste to NRWS composting facility. Supervising the Organic Pre-Processing Line and the composting of that material at the NRWS MDF. Assisting in the sale and distribution of Organic Compost, Recycled Gypsum and ground wood.

## EDUCATION

DECEMBER 2012

**BACHELOR OF ARTS, ECONOMICS**

UNIVERSITY OF COLORADO AT BOULDER

## SKILLS

- 5 years' experience managing a compost facility
- Experience working with Compost Screens (Trommel or Star Screen/Disc)
- Experience working with Horizontal, Tub and Single/dual shaft shredders.
- Experience working with an Impact Crusher
- Heavy Equipment Operator
- Assisted in the design of a compost facility
- Storm Water Reporting and BMPs
- CPR Certified





**Attachment 2: Napa MDF Notices of Violation**

## Transfer/Processing Facility Inspection Report (53)

<b>Enforcement Agency:</b> County of Napa					
<b>SWIS Facility File Number (99-xx-9999)</b>		<b>Inspection Date</b>		<b>Program Code</b>	
28-AA-0030		7/12/2017		LEA Periodic	
<b>Time In</b>	11:00 am	<b>Time Out</b>	1:30 pm	<b>Inspection Time</b>	2.5
<b>Facility Name</b>			<b>Received By</b>		
City of Napa Material Diversion Facility			Napa Recycling & Waste Services, LLC		
<b>Facility Location</b>			<b>Owner Name</b>		
820 Levitin Way, Napa		94558	City of Napa		
<b>Inspector</b>			<b>Also Present (Name)</b>		
Peter Ex & Greg Pirie			CalRecycle Staff: Anthony, Eric, Alyssa Facility		

THE ABOVE FACILITY WAS INSPECTED FOR COMPLIANCE WITH APPLICABLE SECTIONS OF DIVISION 30 OF PUBLIC RESOURCES CODE (PRC) AND TITLE 14 AND TITLE 27 CALIFORNIA CODE OF REGULATIONS (CCR)

<b>No Violations or Areas of Concern</b>	
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V	A	Regulations
	X	<b>17410.1 - Solid Waste Removal</b>  Comments: Recycling Processing Pile observed outside building as approx. 50'W X 50'L X 15'H. Based on discussions with operator (Grant) it will take 2-3 weeks to process this material. In early June the baler was down for 1 week. Facility is having trouble with getting Union workers to work extra shifts to get caught up. Employees were not allowed to work on July 4 per Union although material was still being received.  Previous inspections noted a Violation for solid waste removal. The material being processed is from the curbside source-separated recyclable service routes. LEA will research and review the material as source separated and percent residual.
X		<b>17350 - Waste Tire Storage</b>  Comments: Section 17354 (f) states "Any individual waste tire pile shall be separated from any other waste tire pile, combustible ground vegetation, stored used tires, waste tire material, or products made from tires, by a distance of at least 40 feet." Waste tires used for tarping in the winter are currently stored in loose piles in combustible grass area behind the recycleable material bunkers. This was noted as an Area of Concern on the previous 6/5/17 inspection report. Operator was directed to stack the tires in an area away from combustible materials. This has not been corrected to date.
X		<b>17418.3 - Traffic Control</b>  Comments: Section 17418.3 (a) (2) states in part "Traffic flow through the facility shall be controlled to prevent the following: on-site safety hazards, and..." During the inspection, in the southeast corner of the MRF processing building several on-site safety hazards were identified. 1. Waste disposal trucks were observed backing into the building, unloading in a confined area with numerous employees present. 2. Heavy equipment was quickly moving around the area and moving material in the presence of numerous employees in a confined area. Overall, material processing in regards to employee safety should be re-evaluated to minimize safety hazards. It should be noted that a large backlog of mixed recycling materials may be contributing to limited space inside the building for normal operations.
	X	<b>17408.8 - Protection of Users</b>  Comments: Section 17408.8 states in part "an operation or facility shall be designed, constructed, operated, and maintained so that contact between the public and solid waste is minimized..." During the inspection CalRecycle staff observed a woman dressed in shorts and sandals walk through the facility unattended. Gate staff stated she was allowed to proceed so could join her family who was currently dumping at the facility.

X	17410.3 - Training
	<p>Comments: Site training records were submitted to the LEA. Follow-up training recommended for employees on operational areas identified below.</p> <p>Heavy equipment was quickly moving around the area and moving material in the presence of numerous employees in a confined area. The confined area included personnel sorting cardboard, loader pushing recyclables to a sort belt, and personnel walking on a moving belt that leads to cardboard baler.</p>
X	17409.3 - Scavenging and Salvage
	<p>Comments: Personnel conducting hand sorting of cardboard in unsafe manner on moving belt used for baling cardboard. Salvage of materials shall not "interfere with other aspects of site operations" and shall be "controlled to prevent health, safety, or nuisance problems". A backlog of material storage, multiple personnel/equipment operations, and impaired traffic flow may have contributed to violation.</p>

**Inspection Report Comments:**

This inspection was part of a routine monthly inspection as well as a joint "pre-permit approval" inspection with CalRecycle Staff. In general, the facility was operating efficiently, however employee safety issues were observed as well as a re-occurring backlog of source separated recycling processing. Violations or Area's of Concern have been issued pertaining to; Traffic Control deficiencies within the MRF Processing building that are causing employee safety hazards, observation of the public walking the through the facility in sandals and shorts without escort, and failure to properly store waste tires on the property. Please see details in the comments section. It should also be noted that during the inspection employees were observed walking across the cardboard/paper baling conveyor belt, and standing on the conveyor belt while sorting materials with their back to the conveyor uphill transition level.

Notes: Recycling Processing Pile observed outside building as approx. 50'W X 50'L X 15'H. Based on discussions with operator (Grant) it will take 2-3 weeks to process this material. In early June the baler was down for 1 week. Facility is having trouble with getting Union workers to work extra shifts to get caught up. Employees were not allowed to work on July 4 per Union although material was still being received.

## Transfer/Processing Facility Inspection Report (53)

<b>Enforcement Agency:</b> County of Napa					
<b>SWIS Facility File Number (99-xx-9999)</b>		<b>Inspection Date</b>		<b>Program Code</b>	
28-AA-0030		7/12/2017		CalRecycle Focused	
<b>Time In</b>	1020	<b>Time Out</b>	1145	<b>Inspection Time</b>	1 hrs, 25 mins
<b>Facility Name</b>			<b>Received By</b>		
City of Napa Material Diversion Facility			Napa Recycling & Waste Services, LLC		
<b>Facility Location</b>			<b>Owner Name</b>		
820 Levitin Way, Napa		94558			
<b>Inspector</b>			<b>Also Present (Name)</b>		
Eric Tanner			See report		

THE ABOVE FACILITY WAS INSPECTED FOR COMPLIANCE WITH APPLICABLE SECTIONS OF DIVISION 30 OF PUBLIC RESOURCES CODE (PRC) AND TITLE 14 AND TITLE 27 CALIFORNIA CODE OF REGULATIONS (CCR)

<b>No Violations or Areas of Concern</b>	
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V	A	Regulations
	X	<b>17410.1 - Solid Waste Removal</b>  Comments: The standard states: "(a) All solid wastes shall be removed at the following frequencies or at an alternate frequency approved by the EA, in order to prevent the propagation or attraction of flies, rodents or other vectors: (1) operations shall remove solid wastes accepted at the site within 7 days from the date of receipt; (2) facilities shall remove solid waste accepted at the site within 48 hours from the time of receipt."  Upon further review, the type of material appeared to be source separated curbside recyclables. Research is recommended to approximate the percentage of residual material. The amount of recyclable material stockpiled on the eastern side of the material recovery facility building had not changed in size from the previous month according to the LEA. See attached photo.
X		<b>17350 - Waste Tire Storage</b>  Comments: The standard states: "(1) Waste tires stored outdoors shall comply with the technical and operational standards set forth in sections 17351 through 17354, and sections 17357 through 17359 of this Article." "Section 17354 (f) states "Any individual waste tire pile shall be separated from any other waste tire pile, combustible ground vegetation, stored used tires, waste tire material, or products made from tires, by a distance of at least 40 feet."  As stated in the LEA's June inspection, tires were observed in the combustible grass located at the south end of the facility and had not been removed as requested by the LEA.
X		<b>17418.3 - Traffic Control</b>  Comments: The standard states: "(a) Traffic flow through the facility shall be controlled to prevent the following: (1) interference with or creation of a safety hazard on adjacent public streets or roads, (2) on-site safety hazards, and (3) interference with operations."  Inside the MRF building, heavy equipment was observed moving quickly and operating in close proximity to the workers. The amount of material inside the building impaired traffic flow which could potentially put the workers safety at risk.
	X	<b>17408.8 - Protection of Users</b>  Comments: The standard states: "An operation or facility shall be designed, constructed, operated, and maintained so that contact between the public and solid wastes is minimized. This may be accomplished through the use of railings, curbs, grates, fences, and/or spotters."  CalRecycle staff observed two women in shorts and sandals walking through facility.

X	17410.3 - Training
	<p>Comments: The standard states:  "Personnel assigned to the operation or facility shall be adequately trained in subjects pertinent to site solid waste operations and maintenance, hazardous materials recognition and screening, use of mechanized equipment, environmental controls, emergency procedures and the requirements of this Article. A record of such training history shall be maintained and made available for inspection."</p> <p>While inspecting inside the MRF building, it was observed that three different workers were walking on the recyclable material that was moving on the floor-level conveyer belts leading to the bailer. Please ensure that personnel are trained in the "use of mechanized equipment", including the dangers of walking on moving conveyor belts.</p>
X	17409.3 - Scavenging and Salvage
	<p>Comments: The standard states:  "Each operation or facility shall meet the following requirements:  (c) salvaging activities shall be conducted in a planned and controlled manner and not interfere with other aspects of site operation. Activities shall be conducted so as not to interfere with expeditious entry and exit of vehicles delivering waste to the transfer or processing operation or facility. Salvaging activities conducted at a transfer/processing operation or facility shall be confined to specified, clearly identified areas of the operation or facility, and controlled to prevent health, safety or nuisance problems;  (d) storage of materials salvaged from solid wastes shall be ancillary to the activities of the operation or facility unless such storage is planned as an integral part of the operation. Materials salvaged on-site shall be stored away from other activity areas in specified, clearly identifiable areas as noted in the Facility Plan or Transfer/Processing Report. They shall be arranged to minimize risk of fire, health and safety hazard, vector harborage, or other hazard or nuisance, and limited to a specified volume and/or duration as described in the Enforcement Agency Notification, Facility Plan, or Transfer/Processing Report."</p> <p>A backlog of material impaired traffic flow and safe working conditions inside the building. Toward the eastern side of the building, materials shall be limited to a specific volume and duration.</p>

#### Inspection Report Comments:

Weather: 72F, sunny

Also present: Anthony VanderSchaaf (CalRecycle), Alyssa Gagnon (CalRecycle), Greg Pirie (Napa County), and Peter Ex (Napa County)

Met with Steve Manasse the operation manager on site.

The exterior of the facility was free of windblown litter, both on and off site. A clean-up crew was seen offsite litter picking.

The stockpile area of recyclable material, along the east side of the facility, was also observed to have a significant back log.

All storage bins around the MRF building were organized and were being emptied as appropriate.

The material inside the MRF building was mostly source-separated co-mingled curbside recyclables.

E-waste area was well organized. Most tires were properly stored in bins. No carpet was observed in the carpet staging area.

All employees observed at the MRF sorting lines were wearing proper PPE.

Load check records and recyclable material tonnage showed that facility was in compliance.

Training records were also reviewed.

Special occurrences showed that the sorting line was down for a week in June (June 5-9). Also it was down on July 11th, the day before inspection.

No objectionable odors were observed on or off-site, and the facility was observed to be otherwise well organized and maintained.

At the end of inspection, an electrical failure was observed at the facility.

## Transfer/Processing Facility Inspection Report (53)

<b>Enforcement Agency:</b> County of Napa					
<b>SWIS Facility File Number (99-xx-9999)</b>			<b>Inspection Date</b>		<b>Program Code</b>
28-AA-0030			6/5/2017		LEA Periodic
<b>Time In</b>	2:45 pm	<b>Time Out</b>	4:45 pm	<b>Inspection Time</b>	2.0
<b>Facility Name</b>			<b>Received By</b>		
City of Napa Material Diversion Facility			Napa Recycling & Waste Services, LLC		
<b>Facility Location</b>			<b>Owner Name</b>		
820 Levitin Way, Napa		94558	City of Napa		
<b>Inspector</b>			<b>Also Present (Name)</b>		
Peter Ex			Willy/Grant Ingalls/Gus Vasquez		

THE ABOVE FACILITY WAS INSPECTED FOR COMPLIANCE WITH APPLICABLE SECTIONS OF DIVISION 30 OF PUBLIC RESOURCES CODE (PRC) AND TITLE 14 AND TITLE 27 CALIFORNIA CODE OF REGULATIONS (CCR)

No Violations or Areas of Concern	
V	A
X	<p><b>Regulations</b></p> <p>17410.1 - Solid Waste Removal</p> <p>Comments: This standard reads in pertinent part; "... (2) facilities shall remove solid waste accepted at the site within 48 hours from the time of receipt..." During the previous inspection on May 11, 2017, a large stockpile of mixed waste was observed outside of the material recovery facility building. A routine inspection was completed early this month to monitor the progress towards compliance with solid waste removal. Although the stockpile appears to have diminished in size somewhat compared to the previous inspection (pictures taken for comparison), greater amounts of material were observed in the Southeast corner of the property as compared to the previous inspection (pictures taken for comparison). Additional material was observed within metal bins near the building. The operator stated that following the recent Bottlerock festival, a large amount of material has been delivered within bags that must be physically opened prior to processing on the sorting line. As of today, material was still being delivered from the event which concluded on May 30th, 2017. In addition, at the time of inspection, the cardboard baler had been non-functional due to electrical issues. ETA on repair is within 24 hours.</p> <p>Due to a repeat Violation, the facility shall provide the LEA with a feasible workplan to bring the facility into compliance in an acceptable time frame.</p>
X	<p>17350 - Waste Tire Storage</p> <p>Comments: Operator directed to store waste tires used for site tarping in an area away from combustible grasses.</p>
X	<p>17410.4 - Vector, Bird and Animal Control</p> <p>Comments: Numerous flies were observed onsite in and around the large stock piles of accumulated mixed materials awaiting processing outside.</p>

**Inspection Report Comments:**

At the time of inspection the baler was inoperable and had been down for a period of 8 hours due to electrical problems. An expected timeframe for repair was 24 hours.

The facility continues to violate the state minimum standard for solid waste removal as detailed in comments associated with the Violation. Photos taken at time of inspection.

The facility operator and owner have been directed to prepare a brief plan outlining how the facility will comply with state minimum standards within the next 14 days. A focused re-inspection will be completed by the LEA to determine whether compliance had been achieved. Failure to correct the Violation may result in additional enforcement action.

## Transfer/Processing Facility Inspection Report (53)

<b>Enforcement Agency:</b> County of Napa					
<b>SWIS Facility File Number (99-xx-9999)</b>			<b>Inspection Date</b>		<b>Program Code</b>
28-AA-0030			5/11/2017		LEA Periodic
<b>Time In</b>	1:00 pm	<b>Time Out</b>	3:00 pm	<b>Inspection Time</b>	2.0
<b>Facility Name</b>			<b>Received By</b>		
City of Napa Material Diversion Facility			Napa Recycling & Waste Services, LLC		
<b>Facility Location</b>			<b>Owner Name</b>		
820 Levitin Way, Napa		94558	City of Napa		
<b>Inspector</b>			<b>Also Present (Name)</b>		
Peter Ex			Grant Ingalls, Gus Vasquez		

THE ABOVE FACILITY WAS INSPECTED FOR COMPLIANCE WITH APPLICABLE SECTIONS OF DIVISION 30 OF PUBLIC RESOURCES CODE (PRC) AND TITLE 14 AND TITLE 27 CALIFORNIA CODE OF REGULATIONS (CCR)

<b>No Violations or Areas of Concern</b>	
<b>V</b>	<b>Regulations</b>
X	17410.1 - Solid Waste Removal
	Comments: This standard states in part "... (2) facilities shall remove solid waste accepted at the site within 48 hours from the time of receipt." At the time of inspection, there was a large volume of materials outside the MRF. Mixed recycling material was severely backlogged due to main conveyor sort line belt breaking a couple weeks prior. Material is backing up outside of sort line building in pile approximately 60 feet long, 25 feet wide, and 15 feet high. Pictures taken. Additional pile approximately 35 feet long, 10 feet wide, and 5 high observed in southeast corner of property awaiting sorting and processing. Pictures taken. Flies were numerous as material is taking as long as 72-96 hours to be processed per Grant Ingalls. Facility is working overtime Saturday shifts in an effort to catch up with the backlog.
X	17407.3 - Drainage Control
	Comments: Drainage within baled recycling loading dock is still plugged. 2-3 inches of black water and sludge observed within loading bay. Sewer line has had a blockage for at least two weeks. Grant Ingalls stated a contractor had attempted to clean the line, but additional work was required.
X	17410.4 - Vector, Bird and Animal Control
	Comments: Due to backlogged material outside of the processing building, excessive flies were observed. Birds and other vectors did not appear to be an issue.

<b>Inspection Report Comments:</b>
During this inspection two violations were noted as well as one area of concern. The first violation was due to the material processing backlog, and the second violation was noted due to repeated issues with drainage in the outdoor trailer loading bay. An area of concern was noted due to excessive flies being observed in the backlogged material to be processed. A follow-up inspection will be made early next month to ensure all violations and areas of concern have been addressed.



## Composting Materials Handling Operation and Facility Inspection Report (93)

Enforcement Agency:		County of Napa			
SWIS Facility File Number (99-xx-9999)		Inspection Date		Program Code	
28-AA-0030		4/28/2016		LEA Periodic	
Time In		Time Out		Inspection Time	4.0 hours
Facility Name			Received By		
City of Napa Material Diversion Facility			Napa Recycling & Waste Services, LLC		
Facility Location			Owner Name		
820 Levitin Way, Napa		94558	City of Napa		
Inspector			Also Present (Name)		
Mark Graham			Will Cook		

THE ABOVE FACILITY WAS INSPECTED FOR COMPLIANCE WITH APPLICABLE SECTIONS OF DIVISION 30 OF PUBLIC RESOURCES CODE (PRC) AND TITLE 14 AND TITLE 27 CALIFORNIA CODE OF REGULATIONS (CCR)

No Violations or Areas of Concern		
V	A	Regulations
X		PRC 44014(b) - Operator Complies with Terms & Conditions
<p>Comments: Violation [Third Consecutive Violation]: PRC 44014(b) - Operator Complies with Terms and Conditions of SWF Permit: SWF Permit page 4, LEA Condition #17(b). The permitted maximum tonnage for organics received onsite is 400 TPD... Review of the Facility Report(s) indicates that the permitted tons per day (400 max.) was exceeded in March 2016 (dirt not included): March 2, 2016 - 446.54 tons March 3, 2016 - 458.11 tons March 9, 2016 - 460.14 tons March 14, 2016 - 405.35 tons March 16, 2016 - 411.59 tons A Notice of Violation Letter was sent to the facility owner and contract operator regarding violation. See Notice of Violation Letter issued 5/4/2016.</p>		
Inspection Report Comments:		

## Composting Materials Handling Operation and Facility Inspection Report (93)

<b>Enforcement Agency:</b> County of Napa					
<b>SWIS Facility File Number (99-xx-9999)</b>			<b>Inspection Date</b>		<b>Program Code</b>
28-AA-0030			3/31/2016		LEA Periodic
<b>Time In</b>			<b>Time Out</b>		<b>Inspection Time</b> 4.0 hours
<b>Facility Name</b>				<b>Received By</b>	
City of Napa Material Diversion Facility				Napa Recycling & Waste Services, LLC (NRWS)	
<b>Facility Location</b>				<b>Owner Name</b>	
820 Levitin Way, Napa		94558		City of Napa	
<b>Inspector</b>				<b>Also Present (Name)</b>	
Mark Graham				Will Kelley	

THE ABOVE FACILITY WAS INSPECTED FOR COMPLIANCE WITH APPLICABLE SECTIONS OF DIVISION 30 OF PUBLIC RESOURCES CODE (PRC) AND TITLE 14 AND TITLE 27 CALIFORNIA CODE OF REGULATIONS (CCR)

<b>No Violations or Areas of Concern</b>		
<b>V</b>	<b>A</b>	<b>Regulations</b>
X		PRC 44014(b) - Operator Complies with Terms & Conditions
		<p>Comments: [Second Consecutive Violation]:  SWF Permit page 4, LEA Condition #17(b). The permitted maximum tonnage for organics received onsite is 400 TPD...</p> <p>Review of the Facility Report(s) indicates that the permitted tons per day (400 max.) was exceeded in February 2016 as identified below (dirt not included):</p> <p>February 23, 2016- 427.89 tons (388.21 tons compost; 23.05 tons wood)</p> <p>February 24, 2016 - 415.14 tons (392.09 tons compost; 9.39 tons wood)</p> <p>February 25, 2016 - 409.25 tons (393.91 tons compost; 15.34 tons wood)</p>
<b>Inspection Report Comments:</b>		

## Compostable Materials Handling Operation and Facility Inspection Report (93)

<b>Enforcement Agency:</b> County of Napa					
<b>SWIS Facility File Number (99-xx-9999)</b>			<b>Inspection Date</b>		<b>Program Code</b>
28-AA-0030			2/24/2016		LEA Periodic
<b>Time In</b>			<b>Time Out</b>		<b>Inspection Time</b> 4.0 hours
<b>Facility Name</b>				<b>Received By</b>	
City of Napa Material Diversion Facility				Napa Recycling & Waste Services, LLC	
<b>Facility Location</b>				<b>Owner Name</b>	
820 Levitin Way, Napa		94558		City of Napa	
<b>Inspector</b>				<b>Also Present (Name)</b>	
mark graham				Gus Vasquez; Will Cook	

THE ABOVE FACILITY WAS INSPECTED FOR COMPLIANCE WITH APPLICABLE SECTIONS OF DIVISION 30 OF PUBLIC RESOURCES CODE (PRC) AND TITLE 14 AND TITLE 27 CALIFORNIA CODE OF REGULATIONS (CCR)

<b>No Violations or Areas of Concern</b>		
<b>V</b>	<b>A</b>	<b>Regulations</b>
X		<p>PRC 44014(b) - Operator Complies with Terms &amp; Conditions</p> <p>Comments: SWF Permit page 4, LEA Condition #17(b). The permitted maximum tonnage for organics received onsite is 400 TPD...</p> <p>Review of the Facility Report(s) indicates that the permitted tons per day (400 maximum) was exceeded in November 2015, December 2015, and January 2016 as identified below (dirt not included):</p> <p>November 18, 2015 - 409.05 tons (390.93 tons compost; 18.12 tons wood)</p> <p>November 19, 2015 - 417.61 tons (408.22 tons compost; 9.39 tons wood)</p> <p>December 14, 2015 - 491.24 tons (470.85 tons compost; 20.39 tons wood)</p> <p>December 16, 2015 - 491.42 tons (471.29 tons compost; 20.13 tons wood)</p> <p>December 17, 2015 - 420.01 tons (420.01 tons compost; 20.65 tons wood)</p> <p>December 18, 2015 - 476.58 tons (443.08 tons compost; 33.50 tons wood)</p> <p>December 22, 2015 - 442.84 tons (429.53 tons compost; 13.31 tons wood)</p> <p>December 23, 2015 - 465.23 tons (458.69 tons compost; 6.54 tons wood)</p> <p>January 7, 2016 - 421.06 tons (410.44 tons compost; 10.62 wood)</p>
<b>Inspection Report Comments:</b>		



**Attachment 3: Facility permit documents**



A Tradition of Stewardship  
A Commitment to Service

Planning, Building & Environmental Services

1195 Third Street, Suite 210  
Napa, CA 94559  
www.countyofnapa.org

David Morrison  
Director

August 9, 2017

Kevin Miller  
Materials Diversion Administrator  
City of Napa Public Works Department  
PO Box 660  
Napa, CA 94559

Greg Kelley  
Contract Operator, MDF  
NRWS  
PO Box 239  
Napa, CA 94559

**RE: Modified Solid Waste Facility Permit Application – Permit Issuance**

Dear Mr. Miller and Mr. Kelley:

On August 3<sup>rd</sup>, 2017 CalRecycle concurred on the issuance of a modified Solid Waste Permit (Permit). Napa County Local Enforcement Agency (LEA) has signed and will issue the Permit pursuant to Public Resources Code 44014. Attached is the modified Permit indicating a new 5-year review date. Any future proposed or significant changes to the operations of the Facility must be submitted 180 days prior to the anticipated implementation date and may require a permit revision.

If you have any questions, please feel free to contact me at (707) 253-4419.

Sincerely,

A handwritten signature in black ink, appearing to read "Peter Ex".

Peter Ex, Sr. REHS  
County of Napa Local Enforcement Agency  
Planning, Building, and Environmental Services Department

cc: Marcus Santillano, Environmental Scientist, CalRecycle  
Christine Secheli, Assistant Director, Napa County PBES  
John Kara, Environmental Health Manager, Napa County PBES  
Greg Pirie, Solid Waste Program Manager, Napa County LEA, PBES  
Evan Edgar, Edgar and Associates- Contract Consultant for NRRP  
Chris Shoop, Management Analyst, City of Napa

# SOLID WASTE FACILITY PERMIT

Facility Number:

**28-AA-0030****1. Name and Street Address of Facility:**

City of Napa Materials Diversion Facility  
820 Levitin Way  
American Canyon, CA 94503

**2. Name and Mailing Address of Operator:**

Napa Recycling & Waste Services, LLC  
P.O. Box 239  
Napa, CA 94559

**3. Name and Mailing Address of Owner:**

City of Napa, c/o Materials Diversion Division  
1600 First Street  
P.O. Box 660  
Napa, CA 94559 - 0660

**4. Specifications:**

- a. Permitted Operations: ☐ Solid Waste Disposal Site ☐ Transformation Facility  
☒ Transfer/Processing Facility (MRF) ☐ Other: \_\_\_\_\_  
☒ Composting Facility

- b. Permitted Hours of Operation: **Receipt of Refuse/Waste/Feedstock:** 7 days per week: Commercial vehicles - 5am to 5pm;  
Public vehicles - 8am to 5pm

**Facility Operating Hours:** Twenty- four (24) hours, seven (7) days per week - commingled & source separated recyclables processing, anaerobic digestion, covered aerated static piles (CASP) and windrow composting; mixed waste processing - 6am to 6pm

**Facility Closed:** New Year's Day, Easter, Thanksgiving, Christmas

- c. Permitted Maximum Tonnage: **760** Tons per Day (See LEA Condition 17a.)

- d. Permitted Traffic Volume: **386** Vehicles per Day (See LEA Condition 17d.)

- e. Key Design Parameters (Detailed parameters are shown on site plans bearing EA and CalRecycle validations):

	Total	Organic Materials Management	Transfer/Processing (MRF Recyclables, CDI)	Support operations & Storage
Permitted Area (in acres)	18.6	12	2.4	4.2
Design Capacity	760 TPD Peak	500 TPD Peak	360 TPD Peak	N/A

Upon a significant change in design or operation from that described herein, this permit is subject to revocation or suspension. The attached permit findings and conditions are integral parts of this permit and supersede the conditions of any previously issued solid waste facility permit.

**5. Approval:**

Christine Secheli, REHS  
Assistant Director- Napa County Planning, Building, and Environmental Services

**6. Enforcement Agency Name and Address:**

Napa County Planning, Building, and Environmental Services  
1195 Third St., Suite 210  
Napa, CA 94559

**7. Date Received by CalRecycle:** June 9, 2017

**8. CalRecycle Concurrence Date:** August 3, 2017

**9. Permit Issued Date:**

August 9, 2017

**10. Permit Review Due Date:**

August 9, 2022

**11. Owner/Operator Transfer Date:**

N/A



# SOLID WASTE FACILITY PERMIT

Facility Number:

**28-AA-0030**

## 12. Legal Description of Facility:

The legal description of this facility is contained in **Section I - Transfer/Processing Report (Materials Recovery Facility)**, **Section II - Report of Composting Site Information**, and **Section III - Transfer/Processing Report & Report of Composting Site Information Hybrid (Anaerobic Digestion Facility)** of the Report of Facility Information dated: 2/13/2014. Township 4N, Range 4W, Section 11, Base MD. APNs 57-110-49, 57-110-52, 57-110-65, 57-110-66, 57-110-67, 57-110-68.

## 13. Findings:

- a. This permit is consistent with the Napa County Integrated Waste Management Plan, which was approved by CalRecycle in 1996. The location of the facility is identified in the Countywide Siting Element, pursuant to Public Resources Code (PRC), Section 50001(a).
- b. This permit is consistent with the standards adopted by CalRecycle, pursuant to PRC 44010.
- c. The design and operation of the facility is consistent with the State Minimum Standards for Solid Waste Handling and Disposal as determined by the enforcement agency, pursuant to PRC 44009.
- d. A **Mitigated Negative Declaration** was filed with the State Clearinghouse (SCH #2013092036) and adopted by the **City of Napa** on 11/7/2013. The **Mitigated Negative Declaration** describes and supports the design and operation which will be authorized by the issuance of this permit. A Notice of Determination was filed with the State Clearinghouse on 2/3/2014. **Technical Addendums** to the Mitigated Negative Declaration, dated 6/23/2014 and 5/24/2016, were received and considered with the adopted Mitigated Negative Declaration prior to approving the project.

## 14. Prohibitions:

The permittee is prohibited from accepting the following wastes:

Hazardous, radioactive, medical (as defined in Chapter 6.1, Division 20 of the Health and Safety Code), designated, or other wastes requiring special treatment or handling, except as identified in the Report of Facility Information and approved amendments (as approved by the EA).

Additionally prohibited from: **open burning, scavenging by the public.**

## 15. The following documents describe and/or restrict the operation of this facility:

	Date		Date
<u>Report of Facility Information</u> <u>RFI Amendment</u> <u>RFI Amendment</u>	2/13/2014 11/26/2014 7/18/2016	Land Use/Conditional Use Permit #PL12-0022	11/7/2013
<u>Mitigated Negative Declaration (MND)</u> (SCH #2013092036) Technical Addendum to MND Technical Addendum to MND	11/7/2013 6/23/2014 5/24/2016	<u>State Water Board</u> WDID# 2281020443 WDR# 96-098	1996
Bay Area Air Quality Management District (BAAQMD) #17403	12/1/2014		



<h1 style="text-align: center;">SOLID WASTE FACILITY PERMIT</h1>	<p><b>Facility Number:</b></p> <p style="text-align: center;"><b>28-AA-0030</b></p>
<p><b>16. Results of Self- Monitoring Program</b></p>	<p><b>Reporting Frequency</b></p>
<ul style="list-style-type: none"> <li>a. The type and quantity (in tons) of materials received. (Recorded daily)</li> <li>b. The number and type of vehicles incoming to the facility. (Recorded daily)</li> <li>c. The number and type of vehicles outgoing from the facility.</li> <li>d. The type and quantity (in tons) of material out- hauled from the facility, including wastes, residuals, and recyclables. (Recorded daily)</li> <li>e. Record of written complaints regarding this facility and the operator's actions taken to resolve the complaints.</li> <li>f. Log of special occurrences, including, but not limited to: Fire, explosion, accidents (customers; employees; equipment), equipment breakdowns, unscheduled operational shutdowns, scheduled operational shutdowns, excessive odors migrating offsite, inadvertent hazardous wastes discovered onsite. The log should include the nature of the occurrence, and the response taken by the operator.</li> <li>g. Emergency Response: Fire department, Hazardous Materials (Hazmat), evacuation, police, personnel requiring hospitalization, or an event requiring an emergency response from another agency. The response should include the nature of the occurrence and the response taken by the operator.</li> <li>h. Load Check Inspections – Average one (1) load check per day (averaged per week (21)), per the three identified operational areas (Anaerobic Digestion, Compost, MRF) in the RSI. Load checks to be recorded on a form (as agreed to in format and manner by the EA), retained onsite, and be available for inspection by a regulatory agency upon request. The EA may increase or decrease load check frequency, and may specify the operational areas for load checks to be performed.</li> <li>i. Hazardous Waste Screening - Continuous identification of contaminants and/or unacceptable, prohibited wastes. Unacceptable or prohibited wastes discovered shall be inventoried into the facility operating record. The inventory format shall be agreed to by the EA, and shall be modified as requested by the EA.</li> <li>j. Quantity (cubic yards) of organics (all feedstock; all compost; and all commodity bunkers). Recorded weekly, reported monthly.</li> </ul>	<ul style="list-style-type: none"> <li>Monthly</li> <li>Monthly</li> <li>Monthly</li> <li>Monthly</li> <li>Available Upon Request</li> <li>Available Upon Request</li> <li>Immediate notice via phone or email. Detailed written response within 72 hours.</li> <li>Available Upon Request</li> <li>Available Upon Request</li> <li>Monthly</li> </ul>

# SOLID WASTE FACILITY PERMIT

Facility Number:

**28-AA-0030**

## 17. Enforcement Agency (EA) Conditions:

- a) The permitted maximum daily tonnage for the facility is 760 tons per day (TPD). Exceeding the permitted maximum may lead to enforcement action by the EA.
- b) The permitted maximum daily tonnage for the organics received onsite is 500 TPD. The total maximum of organics onsite at any one time is limited to 90,000 cubic yards. Exceeding the permitted maximum may lead to enforcement action by the EA.
- c) The permitted maximum daily tonnage received onsite for transfer/processing is 360 TPD. Exceeding the permitted maximum may lead to enforcement action by the EA.
- d) The maximum number of vehicles received at the facility, per day, is 386. The facility shall not exceed the permitted maximum. Exceeding the permitted maximum may lead to enforcement action by the EA.
- e) The operator shall comply with all State Minimum Standards for all solid waste handling and disposal; transfer/processing; feedstock and organics management as detailed in Title 14 of the California Code of Regulations.
- f) Access roads and/or operational areas shall be watered as needed to prevent excessive blowing of particulates or reduced visibility.
- g) Maintain vehicle, equipment access lane widths of 15 feet at property boundaries for organics feed stock and compost management areas.
- h) Organics management shall be conducted in a manner that minimizes vectors, leachate, odor impacts, litter, hazards, nuisances, dust, and noise impacts. Organics management shall minimize human contact with particulates, inhalation and ingestion hazards, and pathogenic organisms.
- i) Compostable materials onsite - operator shall conduct temperature monitoring (number, start and end date, temperature, aeration), incoming feedstock volume, finished storage volume, and end use (date outhauled, volume, location) .
- j) All transfer/ processing equipment and boxes shall be cleaned each operating day of all loose materials and litter.
- k) Food Depackaging Equipment – weekly pressure washing of Food Depackaging Equipment or as directed by the EA, recorded in operating records.
- l) Drainage Control - water and leachate shall be controlled to minimize contact water, off-site migration of contact water, maintain the integrity of roads and structures, protect public health, and prevent safety hazards.
- m) Dust Control - take adequate measures to minimize the creation, emission, or accumulation of excessive dust and particulates, and prevent other safety hazards to the public caused by obscured visibility or dust in contact with the public. Measures to control dust, in addition to what is identified in the RFI, include, but are not limited to: reduced processing, periodic sweeping and cleaning, and misting systems.
- n) Protection of Users - facility shall be designed, constructed, operated, and maintained so that contact between the public and solid waste is minimized. MRF operations, vehicle traffic, and equipment shall be physically separated from incoming customer vehicle flow. This may be accomplished through the use of barriers, railings, curbs, grates, fences, spotters, or other methods as agreed to by the EA.
- o) The operator shall maintain a log of special/unusual occurrences. The log shall include, but is not limited to, fires, explosions, the discharge and disposition of hazardous or unpermitted wastes, injuries, accidents, or property damage. Each log entry shall be accompanied by a summary of any actions taken by the operator to mitigate the occurrence. The log shall be available to site personnel and the EA at all times, upon request.
- p) A copy of this permit and all required records, in a format as approved by the EA, shall be maintained at the facility and made available upon request.
- q) Additional information concerning the design and operation of the facility shall be furnished upon request and within the time frame specified by the EA.
- r) Any change that would cause the design or operation of the facility not to conform to the terms and conditions of this permit is prohibited. Such a change may be considered a significant change, requiring a permit revision. In no case shall the operator implement any change without first submitting a written notice of the proposed change, in the form of an RFI amendment, to the EA at least 180 days in advance of the change.

**END**

11/06/14

A9279


**BAY AREA AIR QUALITY  
MANAGEMENT DISTRICT**

 939 ELLIS STREET  
 SAN FRANCISCO, CALIFORNIA 94109  
 (415) 771-6000

**PERMIT  
TO OPERATE**

Plant# 17403

Page: 1

Expires: DEC 1, 2015

This document does not permit the holder to violate any District regulation or other law.

 Napa Recycling & Waste Services  
 P O Box 239  
 Napa, CA 94558

 Location: 820 Levitin Way  
 Napa, CA 94559

S#	DESCRIPTION	[Schedule]	PAID
1	Spray booth, 1.52 gal/yr solvent, 4.25 gal/yr clean-up Spray Booth and Oven	[E]	408
2	MISC-HDLG> Storage, Solid waste - other/not spec Yardwaste Stockpile & Associated Activities	[F]	346
6	MISC> Composting, windrows, Solid waste - other/not spec Windrow Area & Associated Activities Abated by: A1 Water Spray System	[G1]	1535
7	MISC-HDLG> Storage, Solid waste - other/not spec Compost Storage Area	[F]	346
8	MISC-HDLG> Material handling, Solid waste - other/not spec On-Site Transporting Activities	[F]	346
9	MISC-HDLG> Material handling, Solid waste - other/not spec Trommel Screen Abated by: A1 Water Spray System	[F]	346

### 6 Permitted Sources

\*\*\* See attached Permit Conditions \*\*\*

The operating parameters described above are based on information supplied by permit holder and may differ from the limits set forth in the attached conditions of the Permit to Operate. The limits of operation in the permit conditions are not to be exceeded. Exceeding these limits is considered a violation of District regulations subject to enforcement action.

11/06/14

A9279



**BAY AREA AIR QUALITY  
MANAGEMENT DISTRICT**

939 ELLIS STREET  
SAN FRANCISCO, CALIFORNIA 94109  
(415) 771-6000

**PERMIT  
TO OPERATE**

Plant# 17403

Page: 2

Expires: DEC 1, 2015

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**\*\*\* PERMIT CONDITIONS \*\*\***

=====

Source# 1	subject to Condition ID# 10764
Source# 2	subject to Condition ID# 11819
Source# 6	" " " ID# 11819
Source# 7	" " " ID# 11819
Source# 8	" " " ID# 11819

11/06/14

A9279



**BAY AREA AIR QUALITY  
MANAGEMENT DISTRICT**

939 ELLIS STREET  
SAN FRANCISCO, CALIFORNIA 94109  
(415) 771-6000

**PERMIT  
TO OPERATE**

Plant# 17403

Page: 3

Expires: DEC 1, 2015

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**\*\*\* PERMIT CONDITIONS \*\*\***

=====

**COND# 10764 applies to S# 1**

Permit Condition #10764 for Source S-1 at Plant #17403

1. Total usage of coatings and clean-up solvent at the paint spray booth, S-1, shall not exceed the following limits per consecutive 12 month period.
  - a. Hy-Lux Solvent Borne Enamel 31844C = 200 gallons
  - b. Clean-up solvent, Lacquer thinner 600 = 100 gallons (Basis: Cumulative Increase)
2. Coatings other than the materials specified in part #1 may be used at S-1 provided that the owner/operator can demonstrate that the following are satisfied:
  - a. Total Precursor Organic Compound (POC) emission from S-1 shall not exceed 1195 pounds in any consecutive twelve-month period.
  - b. The use of these materials does not increase toxic emissions above any risk screening trigger level. (Basic: Cumulative Increase, Toxics)
3. The owner/operator shall ensure that the coating is dried at a temperature of 194 oF or below. (Basis: 8-19-201, 8-19-302.2)
4. The owner/operator shall ensure that the VOC content of the coating is 2.8 lb/gal or below excluding water. (Basis: 8-19-302)
5. The owner/operator shall ensure that materials used at the paint operation at S-1 do not contain methylene chloride (MeCl), chromium (Cr), lead (Pb), manganese (Mn), nickel (Ni), or cadmium (Cd). (Basis: 40 CFR 63, Subpart HHHHHH)
6. Spray booth filters shall be in place and in



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**BAY AREA AIR QUALITY  
MANAGEMENT DISTRICT**

939 ELLIS STREET  
SAN FRANCISCO, CALIFORNIA 94109  
(415) 771-6000

**PERMIT  
TO OPERATE**

Plant# 17403

Page: 4

Expires: DEC 1, 2015

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**\*\*\* PERMIT CONDITIONS \*\*\***

good working condition at all times while booth  
is operating.

(Basis: 8-19-235)

7. The owner/operator of S-1 shall maintain records for the following information in a District approved logbook. These records shall be retained for at least two years from the date of first entry. The logbook shall be kept on site and be made available for inspection to the District staff upon request.
  - a. Products identification numbers, of all coatings.
  - b. Volatile organic (VOC) content of each coating as applied;
  - c. Type and monthly usage of all POC containing materials used
  - d. If a material other than that specified in part #1 is used, POC, NPOC and toxic component contents of each material used, and mass emission calculations to demonstrate compliance with part #2, on a monthly basis
  - e. Monthly usage and/or emission calculations shall be totaled for each consecutive twelve month period
  - f. Quantities of each type of solvent recovered for disposal or recycling
  - g. Daily usage shall be totaled on a monthly basis.
  - h. Coating and mix ratio of each components such as reducer, catalyst in the coating as applied. (Basis: Record keeping)

**COND# 11819 applies to S#'s 2, 6, 7, 8**

S-2, S-3, S-5, S-6, S-7, S-8, S-9:

(Revised 1/5/96; P/A #25563)

1. The yard waste processed through S-3 shall not exceed 40,000 tons per consecutive 12 month period.
2. In order to demonstrate compliance with the above conditions #1, the owner/operator of S-3 shall keep a daily record of the yard waste throughput in a District approved logbook. The records shall be kept for two years

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**BAY AREA AIR QUALITY  
MANAGEMENT DISTRICT**

939 ELLIS STREET  
SAN FRANCISCO, CALIFORNIA 94109  
(415) 771-6000

**PERMIT  
TO OPERATE**

Plant# 17403

Page: 5

Expires: DEC 1, 2015

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**\*\*\* PERMIT CONDITIONS \*\*\***

=====

from the date of recording, and shall be made available to the District staff for inspection.

3. The tub grinder, S-3, and trommel screen, S-9, shall be abated by A-1, water spray at all times during operation, if necessary, to comply with condition #6.
4. The material handling operations such as loading, unloading, stockpiling, and load-out operation associated with this project shall be abated, as necessary, by A-1, water spray to comply with condition #6. Dry, dusty material shall be wetted down before unloading from truck beds, as necessary, to comply with condition #6.
5. All roadways associated with this facility shall be maintained in a clean or wetted condition, as necessary, to comply with condition #6.
6. Visible dust emissions from any operation of this facility shall not exceed Ringelmann 0.5 or result in fallout on adjacent property in such quantities as to cause a public nuisance per Regulation 1-301.
7. All measures including but not limited to proper house-keeping and management practices, frequent windrow turning, contained and dry storage piles, and dust minimization shall be implemented, as necessary, to control odor from this facility.
8. The waste material shall be processed within 72 hours of receipt so that it does not decompose in the storage piles and generate odor on-site.
9. If the plant receives two or more Violation Notices from the District for "Public Nuisance" in any consecutive 12 month period, the owner/operator of this facility shall submit to the District within 30 days, an application to modify the Permit to Operate to include the following control measures as applicable or any order that the District deem necessary and appropriate.
  - a. Enclosure of S-2, S-3, S-5, and S-9.
  - b. Complete enclosure of all operations in a warehouse-like building.
  - c. The paving of all roadways associated with this facility.
  - d. The use of a chemical suppressant to control fugitive dust emissions from roadways associated with this facility.
  - e. Installation of odor abatement system.

~~~~~ END OF CONDITIONS ~~~~~

| S#          | Source Description                          | Annual Average lbs/day |     |     |     |    |
|-------------|---------------------------------------------|------------------------|-----|-----|-----|----|
|             |                                             | PART                   | ORG | NOx | SO2 | CO |
| 1           | Spray Booth and Oven                        | -                      | .11 | -   | -   | -  |
| 2           | Yardwaste Stockpile & Associated Activities | 0                      | -   | -   | -   | -  |
| 6           | Windrow Area & Associated Activities        | 19.7                   | -   | -   | -   | -  |
| 7           | Compost Storage Area                        | .7                     | -   | -   | -   | -  |
| 8           | On-Site Transporting Activities             | 28.4                   | -   | -   | -   | -  |
| 9           | Trommel Screen                              | -                      | -   | -   | -   | -  |
| T O T A L S |                                             | 48.8                   | .11 |     |     |    |





**BAY AREA AIR QUALITY  
MANAGEMENT DISTRICT**

939 ELLIS STREET  
SAN FRANCISCO, CA 94109  
(415) 771-6000 WWW.BAAQMD.GOV

April 28, 2016

Napa Recycling & Waste Services  
P O Box 239  
Napa, CA 94558

Attention: Greg Kelley

**ALAMEDA COUNTY**

Tom Bates  
Scott Haggerty  
Rebecca Kaplan  
Nate Miley

Application Number: 27529

Plant Number: 17403

Equipment Location:

820 Levitin Way  
Napa, CA 94559

**CONTRA COSTA COUNTY**

John Gioia  
David Hudson  
(Secretary)  
Karen Mitchoff  
Mark Ross

Dear Applicant:

Enclosed is your Permit to Operate the following:

**MARIN COUNTY**

Katie Rice

**S-10 Waste Feedstock Conveyor and Sorting System, Bulk Handling Systems; Rated at 50 tons per hour**

*abated by*

**A-1 Water Spray System**

**NAPA COUNTY**  
Brad Wagenknecht

**SAN FRANCISCO COUNTY**

John Avalos  
Edwin M. Lee  
Eric Mar  
(Chair)

**S-11 Waste Feedstock Disc Screens; 2 Screens in Series; BHS Model DRS72-15; Rated at 50 tons per hour, 15 HP**

*abated by*

**A-1 Water Spray System**

*and*

**A-2 Bio-filter for Tipping Building; ECS; 2,200 sq. foot area; Media Bed Depth of 5.5 feet, Air Flow Rate of 7,000 cfm; Empty Bed Retention Time of 45 sec**

**SAN MATEO COUNTY**

David J. Canepa  
Carole Groom  
Warren Slocum

**SANTA CLARA COUNTY**

Cindy Chavez  
Liz Kniss  
(Vice-Chair)  
Jan Pepper  
Rod G. Sinks

**S-12 Waste Feedstock Horizontal Grinder; Vermeer HG4000E; Rated at 50 tons per hour, 351 HP**

*abated by*

**A-1 Water Spray System**

**S-13 Waste Feedstock Trommel Screen; 8' x 30'; MGL Powerscreen 830; Rated at 200 tons per hour, 40 HP**

*abated by*

**A-1 Water Spray System**

**SOLANO COUNTY**

James Spering  
Osby Davis

**SONOMA COUNTY**

Teresa Barrett  
Shirlee Zane

The equipment described above is subject to condition no. 26189.

In accordance with Regulation 2-1-411.2, you must sign your Permit to Operate. All Permits should be posted in a clearly visible and accessible place on or near the equipment to be operated, or kept available for inspection at any time. Operation of this equipment in violation of District Regulations or any permit conditions is subject to penalty action.

In the absence of specific permit conditions to the contrary, the throughputs, fuel and material consumption, capacities, and hours of operation described in your permit application will be considered maximum allowable limits. A new permit will be required before any increase in these parameters, or change in raw material handled may be made.

Jack P. Broadbent  
EXECUTIVE OFFICER/APCO



**BAY AREA AIR QUALITY  
MANAGEMENT DISTRICT**

939 ELLIS STREET  
SAN FRANCISCO, CA 94109  
(415) 771-6000 WWW.BAAQMD.GOV

Please include your permit number with any correspondence with the District. If you have any questions on this matter please call Madhav Patil, Air Quality Engineer II at (415) 749-4674.

Very truly yours,

Jaime A. Williams  
Director of Engineering

A handwritten signature in blue ink, appearing to read "Jaime Williams", written over the printed name.

by  
Air Quality Engineering Manager

MP:  
Enclosure



**BAY AREA AIR QUALITY  
MANAGEMENT DISTRICT**

939 ELLIS STREET  
SAN FRANCISCO, CA 94109  
(415) 771-6000 WWW.BAAQMD.GOV

## PERMIT TO OPERATE

PLANT No. 17403

SOURCE No. 10

### Napa Recycling & Waste Services

820 Levitin Way, Napa, CA 94559

---

IS HEREBY GRANTED A PERMIT TO OPERATE THE FOLLOWING EQUIPMENT

Waste Feedstock Conveyor and Sorting System, Bulk Handling Systems; Rated at 50 tons per hour  
*abated by*

A-1 Water Spray System

Subject to attached condition no. 26189.<sup>1</sup>

JAIME A. WILLIAMS  
DIRECTOR OF ENGINEERING

Permit Issue Date April 28, 2016  
Reported Start Up Date December 21, 2015  
Permit Expiration Date December 20, 2016

By 

**Right of Entry**

The Air Pollution Control Officer of the Bay Area Air Quality Management District, the Chairman of the California Air Resources Board, the Regional Administrator of the Environmental Protection Agency, and/or their designees, upon presentation of credentials, shall be granted the right of entry to any premises on which an air pollution source is located for the purposes of: i) the inspection of the source ii) the sampling of materials used at the source iii) the conduction of an emissions source test iv) the inspection of any records required by District rule or permit condition.

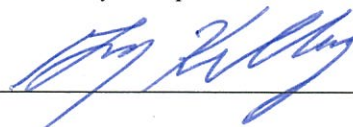
**Permit Expiration**

In accordance with Regulation 3-408, a Permit to Operate is valid for 12 months from the date of issuance or other time period as approved by the APCO. Use of this Permit to Operate is authorized by the District until the later of: the Permit Expiration Date or the Permit Renewal Date. Permit to operate fees will be prorated as described in Regulation 3-402 when the permit is renewed.

This permit does not authorize violation of the rules and regulations of the BAAQMD or the Health and Safety Code of the State of California. District regulations may be viewed on line at [www.baaqmd.gov](http://www.baaqmd.gov). This permit is not transferable to another person without approval from the District. It is the responsibility of the permit holder to have knowledge of and be in compliance with all District Rules and Regulations.

1. Compliance with conditions contained in this permit does not mean that the permit holder is currently in compliance with District Rules and Regulations.

Permit Holder Must Sign Here







**BAY AREA AIR QUALITY  
MANAGEMENT DISTRICT**

939 ELLIS STREET  
SAN FRANCISCO, CA 94109  
(415) 771-6000 WWW.BAAQMD.GOV

## PERMIT TO OPERATE

PLANT No. 17403

SOURCE No. 11

### Napa Recycling & Waste Services

820 Levitin Way, Napa, CA 94559

IS HEREBY GRANTED A PERMIT TO OPERATE THE FOLLOWING EQUIPMENT

Waste Feedstock Disc Screens; 2 Screens in Series; BHS Model DRS72-15; Rated at 50 tons per hour, 15 HP  
*abated by*

A-1 Water Spray System

*And*

A-2 Bio-filter for Tipping Building; ECS; 2,200 sq. foot area; Media Bed Depth of 5.5 feet, Air Flow  
Rate of 7,000 cfm; Empty Bed Retention Time of 45 sec

Subject to attached condition no. 26189.<sup>1</sup>

JAIME A. WILLIAMS  
DIRECTOR OF ENGINEERING

Permit Issue Date April 28, 2016  
Reported Start Up Date December 21, 2015  
Permit Expiration Date December 20, 2016

By

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**BAY AREA AIR QUALITY  
MANAGEMENT DISTRICT**

939 ELLIS STREET  
SAN FRANCISCO, CA 94109  
(415) 771-6000 WWW.BAAQMD.GOV

## PERMIT TO OPERATE

PLANT No. 17403

SOURCE No. 12

### Napa Recycling & Waste Services

820 Levitin Way, Napa, CA 94559

---

IS HEREBY GRANTED A PERMIT TO OPERATE THE FOLLOWING EQUIPMENT

Waste Feedstock Horizontal Grinder; Vermeer HG4000E; Rated at 50 tons per hour, 351 HP

*abated by*

A-1 Water Spray System

Subject to attached condition no. 26189.<sup>1</sup>

JAIME A. WILLIAMS  
DIRECTOR OF ENGINEERING

Permit Issue Date April 28, 2016  
Reported Start Up Date December 21, 2015  
Permit Expiration Date December 20, 2016

By

**Right of Entry**

The Air Pollution Control Officer of the Bay Area Air Quality Management District, the Chairman of the California Air Resources Board, the Regional Administrator of the Environmental Protection Agency, and/or their designees, upon presentation of credentials, shall be granted the right of entry to any premises on which an air pollution source is located for the purposes of: i) the inspection of the source ii) the sampling of materials used at the source iii) the conduction of an emissions source test iv) the inspection of any records required by District rule or permit condition.

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Permit Holder Must Sign Here





**BAY AREA AIR QUALITY  
MANAGEMENT DISTRICT**

939 ELLIS STREET  
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(415) 771-6000 WWW.BAAQMD.GOV

## PERMIT TO OPERATE

PLANT No. 17403

SOURCE No. 13

### Napa Recycling & Waste Services

820 Levitin Way, Napa, CA 94559

---

IS HEREBY GRANTED A PERMIT TO OPERATE THE FOLLOWING EQUIPMENT

Waste Feedstock Trommel Screen; 8' x 30'; MGL Powerscreen 830; Rated at 200 tons per hour, 40 HP  
*abated by*

A-1 Water Spray System

Subject to attached condition no. 26189.<sup>1</sup>

JAIME A. WILLIAMS  
DIRECTOR OF ENGINEERING

Permit Issue Date April 28, 2016  
Reported Start Up Date December 21, 2015  
Permit Expiration Date December 20, 2016

By

#### Right of Entry

The Air Pollution Control Officer of the Bay Area Air Quality Management District, the Chairman of the California Air Resources Board, the Regional Administrator of the Environmental Protection Agency, and/or their designees, upon presentation of credentials, shall be granted the right of entry to any premises on which an air pollution source is located for the purposes of: i) the inspection of the source ii) the sampling of materials used at the source iii) the conduction of an emissions source test iv) the inspection of any records required by District rule or permit condition.

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1. Compliance with conditions contained in this permit does not mean that the permit holder is currently in compliance with District Rules and Regulations.

Permit Holder Must Sign Here



Plant Name: Napa Recycling & Waste Services

Source Nos. 10 through 13

Condition No. 26189

Plant No. 17403

Application No. 27529

Plant 17403; Applies to:

- S-10 Waste Feedstock Conveyor and Sorting System; Abated by A-1 Water Spray System
- S-11 Waste Feedstock Disc Screens; Abated by A-1 and A-2 Bio-filter
- S-12 Waste Feedstock Horizontal Grinder; Abated by A-1
- S-13 Waste Feedstock Trommel Screen; Abated by A-1

1. The owner/operator shall not accept and/or process at S-10, S-11, S-12, and S-13 any feedstock containing food waste (such as food scraps and compostable food packaging or serving materials), grape pomace, and/or animal wastes.  
[Basis: Regulations 1-301, 2-1-312, and 7-1-110.5, Cumulative Increase]
2. The owner/operator shall not process more than following quantities of yard waste, non-food waste, and non-animal waste feedstock in any consecutive, rolling 12-month period:
  - a. 53,600 tons at each source S-10 and S-11
  - b. 40,000 tons at each source S-12 and S-13[Basis: Regulation 2-1-312, Cumulative Increase]
3. The owner/operator shall process all feedstock at S-10, S-11, S-12, and S-13 within 48 hours of receipt at the site.  
[Basis: Regulation 1-301, Cumulative Increase]
4. The owner/operator shall abate emissions from S-11 with A-1 as needed and with A-2 at all times S-11 operates.  
[Basis: Cumulative Increase, Regulations 1-301 and 6-1-305]
5. The owner/operator shall abate emissions from S-10, S-12, and S-13 with A-1, as needed, to limit visible emissions.  
[Basis: Cumulative Increase, Regulations 1-301 and 6-1-305]
6. The owner/operator shall install, operate, and maintain A-2 to meet the following requirements:
  - a. Follow manufacturer's recommended specifications.
  - b. Equip A-2 with surface irrigation system. The irrigation system shall be controlled by timers to adjust the water flow rate in response to moisture level observations.
  - c. Replace filter media every two years or within 90 days when the back pressure at inlet of A-2 exceeds a static pressure limit that shall be established pursuant to Part 7 of this Permit Condition.
  - d. Add filter media to existing filter media whenever the total media depth approaches the minimum limit that shall be established pursuant to Part 7 of this Permit Condition.
  - e. Repair any air duct leaks within five days from discovery.
  - f. Remove vegetation growth from filter media surface immediately upon discovery.
  - g. Rake filter media surface and/or add filter media immediately upon discovering deterioration in media condition such as fissures or channeling.[Basis: Cumulative Increase, Regulation 1-301]



Plant Name: Napa Recycling & Waste Services

Source Nos. 10 through 13

Condition No. 26189

Plant No. 17403

Application No. 27529

7. Within 60 days of receipt of Authority to Construct under AN 27180, the owner/ operator shall provide manufacturer-recommended operating ranges for the following parameters for A-2, to ensure 90% control efficiency for VOC and 70% control efficiency for PM10 emissions:
  - a. Inlet back pressure at start-up and allowable increase in back pressure above which filter media replacement shall be required. The owner/operator shall document and provide to the District the control settings at which back pressure will be measured.
  - b. Media moisture content
  - c. Media pH
  - d. Media heightAlternatively, the owner/ operator may establish the operating ranges for the above parameters using District-approved tests.  
When established, the owner/operator shall submit the parametric ranges to the District to be incorporated into this Permit Condition.  
[Basis: Cumulative Increase, Regulation 1-301]
8. If the Owner/operator elects to conduct tests to establish parametric ranges to demonstrate compliance with Part 7 of this Permit Condition, the owner/operator shall submit a source test protocol for approval to the District's Source Test Section. The owner/operator shall notify the Manager of the District's Source Test Section at least thirty (30) days prior to the test, to provide the District staff the option of observing the testing. Within 45 days of test completion, a comprehensive report of the test results shall be submitted to the Manager of the District's Source Test Section for review and disposition.  
[Basis: Regulations 1-301 and 2-1-403]
9. The owner/ operator shall monitor and record the operating parameters of A-2 at the following frequency, using properly calibrated instruments:
  - a. Back pressure at inlet - monthly for the first two years of operation and quarterly thereafter
  - b. Media moisture content - daily using a moisture meter and monthly laboratory analysis of composite sample
  - c. Media pH - monthly
  - d. Media height - monthlyIn addition, the owner/operator shall inspect and record the condition and integrity of A-2 on a monthly basis for signs of media deterioration such as vegetation growth, fissures, and channeling; clogging of irrigation system; and air duct leaks.  
[Basis: Cumulative Increase, Regulation 1-301]
10. In the event the District's Compliance and Enforcement staff issues the facility two or more Notices of





Plant Name: Napa Recycling & Waste Services

Source Nos. 10 through 13

Condition No. 26189

Plant No. 17403

Application No. 27529

Violation citing "Regulation 1-301: Public Nuisance" in any consecutive, rolling, 12-month period, the owner/operator shall implement one or more of following control measures (as applicable), and/or shall implement any additional measures that the District deems necessary and appropriate within a time period mutually agreeable to the facility and the District:

- a. Reduce the permitted yard waste, non-food waste, and non-animal waste throughput at S-10 through S-13 from throughput levels allowed by Part 2 of this Permit Condition.
- b. Enclose dust nuisance operations in a warehouse-like building.
- c. Install an odor abatement system to prevent odors from traveling off-site.
- d. Increase the monitoring frequency of operating parameters at A-2 and conduct source tests to assess the actual capture and control efficiency of A-2.

Within 30-days of receiving the second Notice of Violation, the owner/ operator shall submit a Permit Application to the District to modify these Permit Conditions in order to memorialize the applicable control measures.

[Basis: Regulation 1-301]

11. To demonstrate compliance with this Permit Condition, the owner/operator shall maintain dated records of the following:
  - a. Types and amounts of wastes received at the site and processed at each source S-10 through S-13, on a daily and monthly basis.
  - b. The owner/operator shall use the monthly records to calculate and record the total feedstock throughput at each source S-10 through S-13 on a consecutive, rolling 12-month basis.
  - c. All actions taken pursuant to Part 6 of this Permit Condition.
  - d. All testing and monitoring data required under Parts 7 through 9 of this Permit Condition.

The owner/operator shall maintain these records and any related correspondence with any division of the District in a District-approved log and shall retain the records on-site for at least two years from the date of entry and shall make the records available to District staff for review upon request.

[Basis: Cumulative increase, Regulation 2-1-403]

*End of Conditions*

**STATE WATER RESOURCES CONTROL BOARD**  
**ORDER WQ 2015-0121-DWQ**  
**GENERAL WASTE DISCHARGE REQUIREMENTS FOR COMPOSTING OPERATIONS**

**ATTACHMENT C – NOTICE OF INTENT**

**DISCHARGER INFORMATION**

|                                                                                                  |                 |                                                                                              |                                       |                                     |
|--------------------------------------------------------------------------------------------------|-----------------|----------------------------------------------------------------------------------------------|---------------------------------------|-------------------------------------|
| Owner Name: City of Napa                                                                         |                 |                                                                                              |                                       |                                     |
| Street Address: P.O. Box 660                                                                     |                 |                                                                                              |                                       |                                     |
| City/Locale:<br>Napa                                                                             | County:<br>Napa | State:<br>CA                                                                                 | Zip:<br>94558                         | Telephone Number:<br>(707) 257-9200 |
| Facsimile Number: (707) 257-9522                                                                 |                 |                                                                                              | Email Address: kMiller@cityofnapa.org |                                     |
| Owner Type (check one): <input type="checkbox"/> Individual <input type="checkbox"/> Corporation |                 | <input type="checkbox"/> Partnership <input checked="" type="checkbox"/> Other: Municipality |                                       |                                     |

|                                                                            |                 |              |                                       |                                     |
|----------------------------------------------------------------------------|-----------------|--------------|---------------------------------------|-------------------------------------|
| Operator Name (if different than above): Napa Recycling and Waste Services |                 |              |                                       |                                     |
| Mailing Address: P.O. Box 239                                              |                 |              |                                       |                                     |
| City/Locale:<br>Napa                                                       | County:<br>Napa | State:<br>CA | Zip:<br>94558                         | Telephone Number:<br>(707) 255-5200 |
| Facsimile Number: (707) 256-3565                                           |                 |              | Email Address: Greg@naparecycling.com |                                     |

**1. COMPOSTING OPERATION INFORMATION**

|                                                                                                                                             |                 |                                                         |               |                                     |
|---------------------------------------------------------------------------------------------------------------------------------------------|-----------------|---------------------------------------------------------|---------------|-------------------------------------|
| Compost Facility Name: City of Napa Materials Diversion Facility                                                                            |                 |                                                         |               |                                     |
| Street Address: 820 Levitin Way                                                                                                             |                 |                                                         |               |                                     |
| City/Locale:<br>Napa                                                                                                                        | County:<br>Napa | State:<br>CA                                            | Zip:<br>94558 | Telephone Number:<br>(707) 255-5200 |
| Type (check one):<br><input checked="" type="checkbox"/> Existing Composting Operation<br><input type="checkbox"/> New Composting Operation |                 | Facility Acreage (acres): 12.6                          |               |                                     |
|                                                                                                                                             |                 | Total Facility Capacity (cubic yards): 90,000           |               |                                     |
|                                                                                                                                             |                 | Average Weekly Throughput (cubic yards per week): 1,000 |               |                                     |

|                                                                   |                                                                                 |
|-------------------------------------------------------------------|---------------------------------------------------------------------------------|
| Assessor Parcel Number(s):<br>057-110-049, -052, -065, -066, -068 | Regional Water Board Office: San Francisco Bay (Region 2)                       |
| Latitude <u>38° 12 ' 37 "</u> Longitude <u>-122° 15 ' 53 "</u>    | Regional Water Board Address: 1515 Clay Street, Suite 1400<br>Oakland, CA 94612 |

**2. REASONS FOR FILING**

|                                                        |                                                        |                                                            |
|--------------------------------------------------------|--------------------------------------------------------|------------------------------------------------------------|
| <input type="checkbox"/> New Discharge                 | <input checked="" type="checkbox"/> Existing Discharge | <input type="checkbox"/> Expansion or Change in Operations |
| <input type="checkbox"/> Changes in Ownership/Operator |                                                        | <input type="checkbox"/> Other:                            |

**3. STORM WATER PERMIT**

|                                                                                                                                                                                                                                                                                                  |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Is there an Industrial Storm Water Permit for this facility? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No If yes, WDID Number: <u>2 281020443</u>                                                                                                                         |
| Related to storm water, have you received a "No Exposure Certification", "Notice of Termination", or "Notice of Exemption" for this facility? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If yes, please provide a copy.                                                 |
| The Notice of Intent for coverage under the Industrial Storm Water Permit may be obtained over the internet at:<br><a href="http://www.waterboards.ca.gov/water_issues/programs/stormwater/industrial.shtml">http://www.waterboards.ca.gov/water_issues/programs/stormwater/industrial.shtml</a> |

**ATTACHMENT C - NOTICE OF INTENT  
STATE WATER RESOURCES CONTROL BOARD  
ORDER WQ 2015-0121-DWQ  
GENERAL WASTE DISCHARGE REQUIREMENTS FOR COMPOSTING OPERATIONS**

**4. OTHER PERMITS**

|                                                                                                                                                                                                                                                           |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Has another agency issued permits or other entitlements (e.g., solid waste facility permit, notification permit, conditional use permit, building permits, air permits) for the unit? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |
| For each permit or entitlement, list the type, issuing agency, and date of issuance:<br><br>See attached                                                                                                                                                  |

**5. CALIFORNIA ENVIRONMENTAL QUALITY ACT (CEQA)**

|                                                                                                                      |                                        |
|----------------------------------------------------------------------------------------------------------------------|----------------------------------------|
| Has a CEQA determination been made by an agency? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No | Name of Agency: City of Napa           |
| Type and Date of Determination:<br>Mitigated Negative Declaration, 09/18/2013                                        | State Clearinghouse Number: 2013092036 |

**6. PROCESS**

|                                                                                          |                  |                                                         |                 |
|------------------------------------------------------------------------------------------|------------------|---------------------------------------------------------|-----------------|
| Allowable Materials (check all that apply, and specify the quantity onsite at any time): |                  |                                                         |                 |
| <input checked="" type="checkbox"/> agricultural material                                | cu. yds.: 1,000  | <input type="checkbox"/> anaerobic digestate            | cu. yds.:       |
| <input type="checkbox"/> biosolids (Class A, B, or EQ)                                   | cu. yds.:        | <input type="checkbox"/> food material (non-vegetative) | cu. yds.:       |
| <input type="checkbox"/> green material                                                  | cu. yds.:        | <input checked="" type="checkbox"/> manure              | cu. yds.: 1,000 |
| <input type="checkbox"/> paper material                                                  | cu. yds.:        | <input type="checkbox"/> vegetative food material       | cu. yds.:       |
| <input checked="" type="checkbox"/> residentially co-collected food and green material   | cu. yds.: 88,000 |                                                         |                 |
| Current Processing Capacity (cubic yards): 90,000                                        |                  |                                                         |                 |
| Months during which compostable materials will be on-site: Jan-Dec                       |                  |                                                         |                 |
| Additives/Amendments and maximum dry weight percentage used (list): 30% Max              |                  |                                                         |                 |

**7. SITE CONDITIONS**

|                                                                                                                                      |
|--------------------------------------------------------------------------------------------------------------------------------------|
| Anticipated highest groundwater elevation (feet mean sea level): 49                                                                  |
| Average ground surface material percolation rate (minutes per inch) or attach results of percolation testing: $1.92 \times 10^5$ MPI |
| Annual average precipitation (inches per year): 20                                                                                   |
| Distance to nearest water supply well (feet): 20                                                                                     |
| Closest surface water and distance (name, feet): Fagan Slough - 5,000 feet                                                           |

**8. DESIGN SPECIFICATION TIERS (check one)**

|                                                                                                                                         |                                             |                                               |
|-----------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------|-----------------------------------------------|
| <input type="checkbox"/> Tier I                                                                                                         | <input checked="" type="checkbox"/> Tier II | <input type="checkbox"/> Tier II (monitoring) |
| If the box for Tier II (monitoring) has been marked, provide the proposed Groundwater Protection Monitoring Plan with Technical Report. |                                             |                                               |

**ATTACHMENT C - NOTICE OF INTENT  
STATE WATER RESOURCES CONTROL BOARD  
ORDER WQ 2015-0121-DWQ  
GENERAL WASTE DISCHARGE REQUIREMENTS FOR COMPOSTING OPERATIONS**

**9. TECHNICAL REPORT**

Provide a complete technical report with all the information required in Attachment D of this General Order.

**10. FILING FEE**

Pursuant to California Water Code section 13260 et seq., Dischargers enrolled under this General Order are required to pay an annual fee, as determined by the State Water Resources Control Board. The filing fee accompanying this NOI is the first year's annual fee. The annual fee is based on the threat to water quality and complexity of the discharge in accordance with California Code of Regulations, title 23, section 2200. Dischargers enrolled under this General Order will be assigned a threat to water quality and complexity rating as described in the General Order and will be assessed the corresponding fee, plus any applicable surcharges. The NOI is to be accompanied by a check, made out to the State Water Resources Control Board for the payment of the filing fee.

**11. CERTIFICATION**

"I certify under penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment."

  
Signature (Owner or Authorized Representative)

8-1-16  
Date

Greg Kelley  
Print Name

Managing Member  
Title

707-255-5200 #1181  
Telephone Number

greg@naparecycling.com  
Email



# SOLID WASTE FACILITY PERMIT

Facility Number:

**57-AA-0029****1. Name and Street Address of Facility:**

Northern Recycling Compost-Zamora  
11220 County Road 94  
Zamora, CA 95698

**2. Name and Mailing Address of Operator:**

Northern Recycling  
P.O. Box 177  
Napa, CA 94559

**3. Name and Mailing Address of Owner:**

Northern Recycling  
P.O. Box 177  
Napa, CA 94559

**4. Specifications:**

- a. Permitted Operations:** ☐ Solid Waste Disposal Site ☐ Transformation Facility  
☐ Transfer/Processing Facility (MRF) ☐ Other: \_\_\_\_\_  
☒ Composting Facility (MSW/green material/C&G)

**b. Permitted Hours of Operation:** Receipt of Refuse/Waste: 6:00am to 7:00pm \_\_\_\_\_

Ancillary Operations/Facility Operating Hours: 6:00am to 7:00pm \_\_\_\_\_

**c. Permitted Maximum Tonnage:** 300 Tons per Day

**d. Permitted Traffic Volume:** 120 Vehicles per Day

**e. Key Design Parameters (Detailed parameters are shown on site plans bearing EA and CalRecycle validations):**

|                           | Total | Disposal | Transfer/Processing | Composting | Transformation |
|---------------------------|-------|----------|---------------------|------------|----------------|
| Permitted Area (in acres) | 56    | N/A      | N/A                 | 56         | N/A            |
| Design Capacity (cu.yds)  |       | N/A      | N/A                 | 100,000    | N/A            |
| Max. Elevation (Ft. MSL)  |       | N/A      |                     |            |                |
| Max. Depth (Ft. MSL)      |       | N/A      |                     |            |                |
| Estimated Closure Year    |       | N/A      |                     |            |                |

Upon a significant change in design or operation from that described herein, this permit is subject to revocation or suspension. The attached permit findings and conditions are integral parts of this permit and supersede the conditions of any previously issued solid waste facility permit.

**5. Approval:**

Approving Officer Signature  
April Meneghetti, Acting Director of Environmental Health

**6. Enforcement Agency Name and Address:**

Yolo County Environmental Health Department  
292 West Beamer Street  
Woodland, CA 95695

**7. Date Received by CalRecycle:**

May 21, 2001

**8. CalRecycle Concurrence Date:**

August 15, 2001

**9. Permit Issued Date:**

August 20, 2001

**10. Permit Review Due Date:**

August 11, 2021

**11. Owner/Operator Transfer Date:**

July 7, 2008



# SOLID WASTE FACILITY PERMIT

Facility Number:

57-AA-0029

## 12. Legal Description of Facility:

The site is located in Section 29 of Township 11 North, Range 1 East, Mount Diablo Baseline and Meridian. The Assessor's Parcel Number is 055-200-04. The project site boundary (56 acres of the 104 acre parcel) is indicated on the site plan in appendix B of the Report of Composting Site Information.

## 13. Findings:

- a. This permit is consistent with the Yolo County Integrated Waste Management Plan, which was approved by the CIWMB on December 9, 1996. The location of the facility is identified in the Non-disposal Facility Element (Table M-3, updated December 5, 2000), pursuant to Public Resources Code (PRC), Section 50001(a).
- b. This permit is consistent with the standards adopted by the CIWMB, pursuant to PRC 44010.
- c. The design and operation of the facility is consistent with the State Minimum Standards for Solid Waste Handling and Disposal as determined by the enforcement agency, pursuant to PRC 44009.
- d. The Zamora Fire Department has determined that the facility is in conformance with applicable fire standards, pursuant to PRC, 44151.
- e. A Mitigated Negative Declaration was filed with the State Clearinghouse (SCH #2000052060) and certified by the Yolo County Board of Supervisors on December 5, 2000. The Mitigated Negative Declaration describes and supports the design and operation which will be authorized by the issuance of this permit. A Notice of Determination was filed with the State Clearinghouse on April 3, 2001.

## 14. Prohibitions:

The permittee is prohibited from accepting the following wastes:

Municipal solid waste, hazardous, radioactive, medical (as defined in Chapter 6.1, Division 20 of the Health and Safety Code), liquid (less than 50% solid by weight), designated, or other wastes requiring special treatment or handling, except as identified in the Report of Composting Site Information and approved amendments thereto and as approved by the enforcement agency and other federal, state, and local agencies.

The permittee is prohibited from accepting or bringing onto the site any treated wood or wood treated with lead-based paint for producing compost, mulch, or biomass fuel.

Only green material, as defined in Title 14, California Code of Regulations, shall be accepted at this facility for composting.

## 15. The following documents describe and/or restrict the operation of this facility:

|                                          | Date    |                                                  | Date       |
|------------------------------------------|---------|--------------------------------------------------|------------|
| Report of Composting Site Information    | 4-27-01 | Mitigated Negative Declaration (SCH #2000052060) | NOD 4-3-01 |
| Waiver from Waste Discharge Requirements | 3-19-01 | Conditional Use Permit (Zone File 99-032)        | 12-5-00    |
| AQMD Permit to Operate (grinder) P-01-01 | 4-10-01 | AQMD Permit to Operate (screen) P-23-01          | 4-10-01    |

# SOLID WASTE FACILITY PERMIT

Facility Number:

57-AA-0029

## 16. Self Monitoring:

The owner/operator shall submit the results of all self monitoring programs to the Enforcement Agency within 30 days of the end of the reporting period (for example, 1<sup>st</sup> quarter = January – March, the report is due by April 30, etc.. Information required on an annual basis shall be submitted with the 4<sup>th</sup> quarter monitoring report, unless otherwise stated.) Monitoring elements i. And j. may be satisfied by a phone call to the LEA and notation in the operating record.

| Program                                                                                                                                                                                                                          | Reporting Frequency                 |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------|
| a. The types and quantities (in tons) of feedstock, additives, and amendments entering the facility per day.                                                                                                                     | Monthly                             |
| b. The types and quantities (in tons) of finished product, leaving the facility per day.                                                                                                                                         | Monthly                             |
| c. Results of the hazardous waste load checking program, including the quantities and types of hazardous wastes, medical wastes or otherwise prohibited wastes found in the waste stream and the disposition of these materials. | Monthly                             |
| d. Copies of all written complaints regarding this facility and the operator's actions taken to resolve these complaints.                                                                                                        | Monthly                             |
| e. Results of water sampling and testing.                                                                                                                                                                                        | Quarterly                           |
| f. Records of periods that grinding and/or screening activities ceased due to sustained wind speeds greater than 15 miles per hour.                                                                                              | Monthly                             |
| g. Records of vector complaints (written or oral), results of vector observations or monitoring, and control measures taken.                                                                                                     | Monthly                             |
| h. Records of green material pile (feedstock, active compost, finished product) temperatures for piles greater than six (6) feet in height, and control measures taken if pile temperature exceeds 175 degrees Fahrenheit.       | Monthly                             |
| i. Log and report all customer and employee injuries.                                                                                                                                                                            | Log Daily<br>Report Within 72 hours |
| j. Log of special or unusual occurrences, i.e. accidents, injuries, fires, explosions, equipment breakdown, etc., and the operator's response to correct the problem.                                                            | Log Daily<br>Report Within 72 hours |
| k. Record of all test results generated to comply with metals concentration and pathogen reduction standards.                                                                                                                    | Monthly                             |

The above reporting shall be to the Local Enforcement Agency (LEA), and as required to other regulatory agencies.



# SOLID WASTE FACILITY PERMIT

Facility Number:

57-AA-0029

## 17. Local Enforcement Agency (LEA) Conditions:

- a. The operator shall comply with all State Minimum Standards for solid waste handling and disposal as specified in Title 14, California Code of Regulations. The operator shall not operate this facility without possession of all required permits and/or regulatory approvals.
- b. The operator shall maintain a log of special/unusual occurrences. This log shall include, but is not limited to, fires, explosions, the discharge and disposition of hazardous or unpermitted wastes, and significant injuries, accidents or property damage. Each log entry shall be accompanied by a summary of any actions taken by the operator to mitigate the occurrence. The log shall be available to site personnel and the LEA at all times.
- c. Additional information concerning the design and operation of the facility shall be furnished upon request and within the time frame specified by the LEA.
- d. This permit is subject to review by the LEA and may be suspended, revoked, or revised at any time for sufficient cause.
- e. Any change that would cause the design or operation of the facility not to conform to the terms and conditions of this permit is prohibited. Such a change may be considered a significant change, requiring a permit revision. In no case shall the operator implement any change without first submitting a written notice of the proposed change, in the form of an RCSI amendment, to the LEA at least 150 days in advance of the change.
- f. The operator shall comply with all federal, state, and local requirements and enactments including all mitigation and monitoring measures developed in accordance with any certified environmental document filed pursuant to Public Resources Code Section 21081.6, and all administrative/enforcement orders of all regulatory agencies with jurisdiction at this facility.
- g. The operator shall be in compliance with any requirements of the local fire protection agency.
- h. Prior to increasing the quantity of green material stored, in process, composting/composted, or otherwise located on site the operator shall obtain the written consent of the LEA.
- ✓ i. All incoming material shall be ground, or windrowed and started composting within 90 days of delivery to the site.
- j. Failure of equipment crucial to the operation, such as the grinder, loading or turning equipment, or dust control equipment shall be remedied within 30 days of failure by repair or suitable replacement of the failed unit.
- k. Standing water on feedstock, windrow, processing, or finished product areas is prohibited.
- l. The operator shall not exceed the permitted capacity or the design capacity for material stored, in process, composting/composted, or otherwise located on site.
- m. At the issuance of this permit the conversion factor for feedstock is 6 cubic yards per ton. This conversion factor may be modified, as deemed necessary by the LEA, in writing, without permit action.
- n. This permit supercedes the solid waste facility permit (Registration) issued on July 2, 1998.



**Attachment 4: Napa MDF facility documents – Report of Composting Site Information, Odor Impact Management Plan, Transfer Processing Report, Stormwater Pollution Prevention Plan, CEQA Negative Declaration**

***Report of Composting Site Information***  
*For*

***Napa Renewable Resource Project  
American Canyon, California***

Submitted to:

***Napa County Environmental Health Department  
1195 3rd St, Napa, CA 94559***

Prepared for:

***City of Napa  
and  
Napa Recycling & Waste Services, LLC***

Prepared by:



SACRAMENTO, CALIFORNIA

November 21, 2014

Revised July 2016

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## Appendices

Appendix A: Solid Waste Facilities Permit Application  
Appendix C: Permitting Documents  
Appendix D: Odor Impact Minimization Plan

**Site Maps are located at back of binder before the shared “Appendices”**

## **Introduction**

The City of Napa is proposing a number of improvements at its existing Materials Diversion Facility (MDF), which is located in south Napa County at 802 Levitin Way. The MDF receives and processes all residential and commercial source-separated recyclables and yard waste generated within the City of Napa and collected by the City's authorized operator, Napa Recycling and Waste Services. The MDF also receives and processes materials delivered by haulers servicing surrounding jurisdictions (such as the unincorporated Napa County) and by private (self-haul) customers.

The existing MDF site comprises approximately 18.6 acres, of which approximately 12 acres are used for organic material management operations such as composting and chip and grind; 2.2 acres for soil stockpiling; 1.2 acres for concrete recycling; 1.2 acres for material recovery facility (MRF); and about 2.0 acres for support operations. The MRF is permitted to process up to 360 tons per day of recyclables and the Compost Facility is permitted to accept 200 tons per day of yard waste and wood waste. A 200-ton per day green waste chipping and grinding operation and a food material compost operation and are also located on-site.

The MDF has been in operation since the early 1990's, processing a wide range of recyclable and/or compostable materials. In 2004, the City purchased the MDF and in 2005, Napa Recycling & Waste Services, LLC took over as the City's contracted operator.

## **Facility Contact Information**

|                    |                                                                                                                   |
|--------------------|-------------------------------------------------------------------------------------------------------------------|
| Facility Name:     | Napa Material Diversion Facility                                                                                  |
| Facility Location: | 820 Levitin Way<br>American Canyon, CA 94503                                                                      |
| Mailing Address:   | PO Box 239<br>Napa, CA 94559                                                                                      |
| APN                | 57-110-49, 52, 65, 66, 67, 68                                                                                     |
| Land Owner:        | City of Napa<br>1600 First Street – P.O. Box 660<br>Napa, CA 94559                                                |
| Operator:          | Mr. Greg Kelley<br>Napa Waste & Recycling Services, LLC<br>P.O. Box 239<br>Napa, CA 94559<br>Phone (707) 603-1181 |

|           |                                                                                                             |                                                                                                                                        |
|-----------|-------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------|
| Contacts: | Mr. Greg Kelley<br>Operator<br>NWRS<br>P.O. Box 239<br>Napa, CA 94559<br>Phone (707) 603-1181               | Evan Edgar<br>(Consultant)<br>Edgar & Associates, Inc.<br>1822 21 <sup>st</sup> Street<br>Sacramento, CA 95811<br>Phone (916) 739-1200 |
|           | Kevin Miller<br>Owner (City of Napa)<br>P.O. Box 660<br>Napa, Ca. 94559<br>Phone (707) 257 – 9200 ext. 7291 |                                                                                                                                        |

## **Proposed Project**

The proposed Project consists of operational changes and new technologies at Napa MDF. However, many of the key aspects of the project will not change:

- The property boundary and the permitted area will remain the same.
- The permitted maximum daily tonnage amount will not increase.
- The permitted maximum daily traffic amount will not increase.

The following items will change:

- Food waste and co-collected food waste will be received at the Facility.
- The hours of operations will change for the compost facility as the newer compost technologies have 24-hour operations to operate the blowers in the aerated static pile system and the mechanics of the anaerobic digestion system and the biomass gasification unit.
- The operational changes and technologies will be phased in over time in a modular and distinct fashion allowing the Project to develop, while keeping the current operations in place until the newer technology is added and becomes operational.
- The permitted maximum storage will increase from 60,000 cubic yards to 90,000 CYD of compost feedstock, composting material, and final product, where the food waste material processing will occur under covered conditions.

The Organic Waste Flow Charts are provided at the end of RFI which show the interrelation between the Compost Facility and the Anaerobic Digestion (AD) Facility. The AD Facility may be built in two phases of 12,500 tons per year (TPY) each, or in one larger AD Facility of 25,000 TPY. The digestate from the AD Facility may be composted in an in-vessel composter as part of the AD Facility or in the covered aerated static pile (CASP) system. Therefore, there are 2 options to phase in the AD Facility and 2 scenarios to manage the digestate:

- Option A – Scenario 1 is to have 2 AD phases of 12,500 TPY each with the digestate managed in the in-vessel composter
- Option A – Scenario 2 is to have 2 AD phases of 12,500 TPY each with the digester managed in the CASP system
- Option B – Scenario 1 is to have a 25,000 TPY AD Facility with the digestate managed in the in-vessel composter
- Option B – Scenario 2 is to have a 25,000 TPY AD Facility 2 with the digester managed in the CASP system

Upon final design, the operator is committed to prepare a RFI Amendment with a Site Map with the preferred option and scenario.

The proposed improvements for the Project consist of the following:

Covered Composting – 50,000 Tons per Year: Phase in the conversion of the existing open air green waste windrow composting system to a covered composting system that can accept blended amounts of food waste with the green waste, and add odor and emission control technology with the use of biofilters. Process 50,000 tons per year of co-collected green waste with food waste (which may contain food-soiled paper and food material from product depackaging at the Material Recovery Facility, food processing waste, some of which could be in liquid form (from product depackaging at the Material Recovery Facility or from winery waste) and used for feedstock moisture conditioning, grape pomace, sawdust, anaerobic digestion digestate, manure and bedding that would be placed in an aerated static pile composting system. Green waste windrow composting will still be allowed to continue as the covered compost technology is phased in. Open windrow composting will be reduced over time, but will ultimately continue for co-collected green material containing small amounts of food waste (less than 10%) in an amount of 45 tons per day, or 11,640 tons per year.

Anaerobic Digestion: Installation of anaerobic digestion technology to process 25,000 tons per year of a mixture of food waste and green waste in a fully enclosed structure, and create a byproduct of renewable compressed natural gas to fuel the waste and recycling collection vehicle fleet, as well as producing a digestate that will be further composted on-site. The same types of feedstock described for the Covered Compost system would also serve as feedstock for the anaerobic digester

Storm Water Treatment: Install improved storm water pollution prevention and treatment facilities.

The Napa MDF historically had three Solid Waste Facility Permits (SWFP) activities, all for the same location. The recent SWFP combined these three permits into a single SWFP, encompassing the activities occurring at the overall facility; this is shown in Table 1 with the tons per year (TPY) and tons per day (TPD) on a typical day:



**Table 1 – Permit Limits for Current Operations**

| Previous Facility Permits                  | Combined Solid Waste Facility Permit                                                                       | Proposed Napa Renewable Resources Project (operating areas)                                                                                                                                                                                               |
|--------------------------------------------|------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Material Recovery Facility                 | One Solid Waste Facility Permit to combine the three previous permits for 760 TPD and 386 vehicles per day | <ul style="list-style-type: none"> <li>• 154 TPD typ. recyclables (40,000 TPY)</li> <li>• 115 TPD typ. C&amp;D (30,000 TPY)</li> </ul> <p style="text-align: right;"><i>269 TPD avg. total<br/>360 TPD peak total</i></p>                                 |
| Compost Facility                           |                                                                                                            |                                                                                                                                                                                                                                                           |
| Green Waste Chipping and Grinding Facility |                                                                                                            | <ul style="list-style-type: none"> <li>• 115 TPD typ. AD (25,000 TPY)</li> <li>• 241 TPD typ. CASP (66,640 TPY)</li> <li>• 44 TPD typ. Biomass (11,500 TPY)</li> </ul> <p style="text-align: right;"><i>400 TPD avg. total<br/>500 TPD peak total</i></p> |

The combined permit will allow the operator to accommodate seasonal fluctuations in the flows of materials into the facility which tend to peak at different periods of time throughout the year.

## Regulatory Requirements

The California Department of Resources Recycling and Recovery (CalRecycle) oversees the permitting of the Napa MDF regulations contained in California Code of Regulations (CCR), Title 14, Division 7, and Chapter 3.1. In particular, 14 CCR, section 17863 requires the operator to submit a Report of Composting Site Information, as part of their Solid Waste Facility Permit (SWFP) application to CalRecycle's Local Enforcement Agency (LEA), as defined in Section 18227 below.

Each operator of a compostable material handling facility that is required to obtain a Compostable Materials Handling Facility Permit, as specified in Title 27, California Code of Regulations, Division 2, Subdivision 1, Chapter 4, Subchapter 1 and Subchapter 3, Articles 1, 2, 3, and 3.1 (commencing with section 21450), shall, at the time of application, file a Report of Composting Site Information with the EA as required by section 17863 of this Title. A Report of Composting Site Information shall contain the following.

This RCSI format allows CalRecycle and the Local Enforcement Agency (LEA) to clearly review all aspects of the California Code of Regulations - Title 14 are fully addressed in conjunction with the issuance of a Solid Waste Facility Permit and its corresponding terms and conditions.

(a) A description of the processes to be used, including estimated quantities of feedstocks, additives, and amendments.

(b) A descriptive statement of the operations conducted at the facility.

(c) A schematic drawing of the facility showing layout and general dimensions of all processes utilized in the production of compost including, but not limited to, unloading, storage, processing, parking, and loading areas.

(d) A description of the proposed methods used to control leachate, litter, odors, dust, rodents, and insects.

(e) A description of the proposed emergency provisions for equipment breakdown or power failure.

(f) A description of the storage capacity and anticipated maximum and average length of time compostable materials will be stored at the facility.

(g) A description of compostable materials handling equipment used at the facility including type, capacity, and number of units.

(h) Anticipated annual operation capacity for the facility in cubic-yards.

(i) A description of provisions to handle unusual peak loadings.

(j) A description of the proposed method for storage and final disposal of nonrecoverable or nonmarketable residues.

(k) A description of the water supplies for process water required.

(l) Identification of person(s) responsible for oversight of facility operations.

(m) A description of the proposed site restoration activities, in accordance with section 17870.

(n) An Odor Impact Minimization Plan pursuant to section 17863.4.

## Previous Approvals

The City and the operator, Napa Recycling and Waste Services (NRWS) maintain many local and state permits for the MDF site: The County of Napa approved Use Permit U-90-2, and certified a Negative Declaration in 1991, which has been modified several times over the years; February 9, 1994 (93248-MOD), September 16, 1994 (93530-MOD), April 16, 1995 (94129-MOD), March 20, 1996 (95172-MOD), and September 5, 1997 (96468-MOD), and with each Use Permit Modification, a Negative Declaration was certified. Pursuant to Section 15150 of the California Environmental Quality Act, the Negative Declarations that were prepared for each of the existing modification of the facility are incorporated into this Initial Study by reference and listed below:

- Negative Declaration for Use Permit #U-90-29: Establishment of recyclable material transfer facility, yard waste recycling facility, administrative offices, and truck storage administrative maintenance. (2/20/91)
- Negative Declaration for Solid Waste Facility Permit #SWF-009 (10/2/92) SCH #92033087
- Negative Declaration for Use Permit Modification #93530-MOD: Installation of surface runoff retention and filtration ponds (9/16/94) SCH #94073045
- Negative Declaration for Use Permit Modification #94129-MOD. (8/9/95) SCH #95023019
- Negative Declaration for Use Permit Modification #95172-MOD (3/28/96)
- Negative Declaration for Use Permit 12-0022 by the City of Napa(10/31/14)
- CEQA Technical Addendum by the City of Napa (7/2/14)
- CEQA Technical Addendum by the City of Napa (5/24/16)

The Facility has obtained the following permits:

- General Permit for Storm water Discharges Associated with Industrial Activity , Waste Discharge Identification (WDID) Number 2 28I020443, State Water Resources Control Board (State Water Board)
- Order No. 96-098, Conditional Waiver of Waste Discharge Requirements (WDR) for Composting Operations, California Regional Water Quality Control Board, San Francisco Bay Region (Water Board)
- Permit to Operate Plant #17403, Bay Area Air Quality Management District (BAAQMD)
- Napa County Agricultural Commissioner/California Department of Food and Agriculture (CDFA)/United States Department of Agriculture (USDA) Compliance Agreement No. 28-03-SOD-010 – *Phytophthora* Quarantine

## **Composting Processes and Ingredients**

### **A. DESCRIPTION OF THE COMPOSTING PROCESSES TO BE USED, INCLUDING ESTIMATED QUANTITIES OF FEEDSTOCKS, ADDITIVES, AND AMENDMENTS**

The MDF will accept compost and anaerobic digestion feedstock that is clean green organic material and food waste, as previously described on Page 4. The food waste will consist of co-collected residential green waste/food waste ( typically with less 10% food waste) and source separated food waste (which may contain food-soiled paper and food material from product depackaging at the Material Recovery Facility), food processing waste, some of which could be in liquid form and used for feedstock moisture conditioning, and grape pomace. The organic material accepted by the MDF will principally be municipal source-separated yard trimmings and food waste, with maximum quantities of 27,364 tons per year of food waste (both co-collected and source separated). The source separated food waste may come from a variety of sources, such as food processing facilities, commercial operations, restaurants, grocery stores, institutions, residential food scraps, etc., and may consist of pre and post-consumer food waste.

Materials anticipated to be used as compost feedstock are yard trimmings, green waste, grape pomace, food waste, plant wastes, untreated wood wastes, animal bedding and manure, anaerobic digestion digestate and other plant material from agricultural sources such as orchards, crop residues, and canneries. Amendments to the compost process may include wood chips, clean soils, clay, gypsum, lime and agricultural minerals. Untreated wood waste will also be processed into fuel for biomass energy conversion.

Napa MDF proposes the use of an aerated static pile compost method to be employed along with traditional windrow composting. The use of aerated static pile systems would be gradually phased in as the amount of food waste increases over time and windrow composting will be decreased, but will ultimately continue for 64 tons per day of incoming clean green material and/or co-collected green material with small amounts of commingled food waste (i.e. less than 10%). Aerated static piles can be covered with an impermeable cover and/or finished compost (or compost overs) to control emissions and storm water infiltration.

## Feedstock

The facility is designed to manage up to 90,000 cubic yards onsite of feedstock, finished product and active compost. The operator plans to accept the materials shown in Table 2.

**Table 2. Feedstock Description**

| Material Type                                                               | Material Processing Activity Per Operations Area                                                                                         | Estimated Quantity (average) |
|-----------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------|------------------------------|
| Green Waste, Green and Agricultural Material, Anaerobic Digestion Digestate | This material will be used in the composting process, after grinding, if not processed prior to arrival.                                 | 174 TPD<br>535 CY/Day        |
| Food Waste                                                                  | Commingled green waste/food waste material (up to 10% food waste) or source separated food waste will be used in the composting process. | 82 TPD<br>149 CY/Day         |
| Gypsum                                                                      | Blended with compost to make soil amendments                                                                                             | 4,000 tons annually          |

The following material will be received and processed at the facility:

*"agricultural commodities"* [14CCR §17852(a)(5)] - means material of plant or animal origin, which result from the production and processing of farm, ranch agricultural, horticultural, aquacultural, silvicultural, floricultural, vermicultural, or viticultural products, including manures, orchard and vineyard prunings, and crop residues.

*"green material"* [14 CCR §17852(a)(21)] -- means any plant material that is separated at the point of generation contains no greater than 1.0 percent of physical contaminants by weight, and meets the requirements of Section 17868.5. Green material includes, but is not limited to, yard trimmings, untreated wood wastes, natural fiber products, and construction and demolition wood waste. Green material does not include biosolids, mixed solid waste, material processed from commingled collection, wood containing lead-based paint or wood preservative, mixed construction or mixed demolition debris.

*"food material"* [14CCR §17852(a)(20)] - means any material that was acquired for animal or human consumption, is separated from the municipal solid waste stream, and that does not meet the definition of "agricultural material." Food material may include material from food facilities as defined in Health and Safety Code section 113785, grocery stores, institutional cafeterias (such as, prisons, schools and hospitals) or residential food scrap collection.

*"yard trimmings"* means any wastes generated from the maintenance or alteration of public, commercial or residential landscapes including, but not limited to, yard clippings, leaves, tree trimmings, prunings, brush, and weeds.

*"wood waste"* means solid waste consisting of wood pieces or particles which are generated from the manufacturing or production of wood products, harvesting, processing or storage of raw wood materials, or construction and demolition activities.

*“additives”* [14CCR §17852 (a)(2)] - Material mixed with feedstock or active compost in order to adjust the moisture level, carbon to nitrogen ratio, or porosity to create a favorable condition. Additives include, but are not limited to, fertilizers and urea. Additives do not include septage, biosolids, or compost feedstock.

*“Green Waste”* means any plant material that is separated at the point of generation that may contain up to 5.0 percent of physical contaminants by weight. Green waste includes, but is not limited to, yard trimmings, untreated wood wastes, natural fiber products, and construction and demolition wood waste. This definition is provided as a generic, industry-accepted term and is not intended as equivalent to “green material” described in Title 14, Section 17852(a)(21), which may also be utilized in this document, is accepted at the facility, and also falls within the definition of green waste.

Co-collected organic (CCO) materials consisting of residential green waste commingled with up to 10% post-consumer food waste may be accepted; this feedstock would be derived from residential food scrap collection programs (described below in Table 3) that may be instituted in local jurisdictions to increase landfill diversion.

**Table 3. Typical Acceptable Items for Co-Collected Organics (CCO) Programs**

| Yes                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | No                                                                                                                                                                                                 |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| All Residentially-Generated Commingled Food Waste Products with Green Material including: <ul style="list-style-type: none"> <li>• Fruit, vegetable, breads, cereal, dairy</li> <li>• Meat, fish (including bones)</li> <li>• Leftovers &amp; table scraps</li> <li>• Coffee grounds, filters &amp; tea bags</li> <li>• Food-soiled paper</li> <li>• Paper towels, plates &amp; napkins</li> <li>• Pizza boxes</li> <li>• Compostable plastic bags</li> <li>• Compostable food service ware</li> <li>• Source-separated food waste</li> </ul> | Inert materials and plastic products including: <ul style="list-style-type: none"> <li>• Plastic (bags, containers, Styrofoam etc)</li> <li>• Glass</li> <li>• Metal</li> <li>• Liquids</li> </ul> |

Commercial loads of food waste containing both pre-consumer and post-consumer food scraps from food processors, restaurants, grocery stores or other food service operations, may also be accepted. Source-separated food waste from commercial sources may be mixed with green waste to achieve an optimum ratio of carbon to nitrogen. Agricultural sources, such as grape pomace, may also be accepted. Materials containing food waste will be composted using a covered aerated static pile system.

#### Anaerobic Digestion Digestate

The facility may also accept digestate from the anaerobic decomposition of food and green waste.

*“digestate”* is an unstable product that has been digested, but not composted, and would qualify as a compost feedstock. Digestate derived from food waste and green

waste anaerobic digestion process would be classified as a compost feedstock and would qualify as green material for tonnage accounting purposes.

*“composted digestate”* is a compost product that has been digested and composted but not cured, and would qualify as a compost feedstock. Composted digestate with subsequent compost process on-site derived from a food waste and green waste anaerobic digestion process would be classified as a compost feedstock and would qualify as green material for tonnage accounting purposes.

### Gypsum

Additionally, gypsum from dry wall sources is used as an additive to assure proper nutrient balance in the end product. Only “clean” wallboard scrap from drywall contractors is accepted. It is added during the composting process, in variable quantities, to satisfy the needs of agriculture markets and the creation of custom blends for Napa MDF clients. Anticipated tonnage is 4,000 tons per year.

### **Green and Wood Waste Receiving and Storage**

A large portion of the green waste, co-collected green/food waste (less than 10% food waste) and wood waste would continue to be received and stockpiled outdoors on existing concrete pads areas in the southwestern portion of the MDF. Wood waste can either be used as a carbon source in feedstock mixtures, or used as biomass fuel. Materials that are not compatible with the composting process, or which might damage process equipment (e.g., concrete and asphalt, treated wood waste), would be manually removed and handled as residue.

### **Wood and Green Waste Pre-processing System**

The MDF includes a wood and green waste pre-processing system. This system has been developed to fulfill the dual-tasks of preparing green waste and wood waste for composting and for biomass markets. Prior to being placed in the aerated static pile or windrow compost system, feedstocks must undergo size reduction, watering and mixing to optimize biological performance. Size reduction of materials destined for biomass markets is also required to meet maximum particle size specifications in purchase agreements. In both cases, contaminants such as metals, plastics and treated wood must also be removed from feedstocks. The pre-processing system consists of three steps: pre-screening, size reduction, and size classification. Each step is done using a separate piece of equipment.

- Pre-screening would be done using a disc screen, the intent of which is to provide an initial separation of materials into fine and coarse fractions. The fine fraction would be suitable for composting without further processing.
- Oversized materials from the disc screen would be appropriately size-reduced and then directed to a trommel screen to divide the materials into fine and coarse fractions. The fine fraction would proceed to composting and coarse particles would be directed to a biomass stockpile and subsequently marketed to biomass to energy facilities in the region or used in the on-site biomass gasification unit

- Equipment included in the pre-processing line would be equipped with overhead and head pulley magnets to remove ferrous metals such as nails, screws, and wire.

### **Food Waste**

Food waste will be blended by bucket loader with select loads of green waste on the floor of the receiving and mixing building, in roughly a 1 to 1 ratio, although this may vary as the optimal ratio is determined during operations. Feedstock blends can be accommodated in the anaerobic digester up to a ratio of 66/34 food waste to green waste, and the covered composting system can accept mixes of up to 40/60 food waste to green waste, based upon feedstock availability and seasons. Efforts will be made to train the generator on source-separating food waste from other waste materials with outreach, bilingual pamphlets, feedback on contamination levels, and continual updated training events. The blended material is then carried by loader to the anaerobic digestion system building enclosure area where it will be loaded into a vessel.

### **Anaerobic Digestion Digestate**

After materials have been in the anaerobic digestion units for 21 days, they will be removed and immediately placed under forced aeration composting, either in an In-vessel Composting (IVC) system, or in the covered aerated static pile system.

The digester doors open onto a concrete slab covered with a canopy to prevent storm water contamination. Digestate will be blended with green material to achieve suitable porosity, carbon content, etc., as needed, and placed under forced aeration in a concrete composting bunker.

Another option is to use completely enclosed compost bunkers (IVC). With this option, the materials will remain in the IVC for 5 days to further stabilize the digestate. Title 14 requirements for further pathogen reduction will occur at those operations to ensure compliance. The IVC tunnels will bring the digestate from the AD system up to temperatures to meet Title 14. The size and configuration of the anaerobic digestion system would require a total of four IVC units to handle all of the digestate. Process air from the IVCs would be routed through dedicated acid scrubber and biofilter systems (i.e., one system per IVC).

The composted digestate would be screened through the primary trommel system as they are removed and oversized materials from screening would be stockpiled for reincorporation into the composting and digestion processes. The fine materials would be transferred to the curing pad via truck and trailer where they will undergo curing in windrows, generally for 6 to 8 weeks. After the compost is removed from the covered ASP system or the IVC tunnels, it will be cured on-site in one of the identified curing piles. Following curing, materials would be further screened through a trommel to meet end user specifications.

### **Composting Process Overview**

An overview of the various composting processes is presented below:



### Elongated Windrow Method

- Incoming trucks will be received and weighed at the scale located at the facility. Scale personnel will also direct haulers to the composting facility after a cursory load check. Appropriate signage in conformance with the requirements of 14 CCR §17867(a)(7) will be placed within the composting facility.
- The source-separated green materials and/or co-collected materials delivered to the compost facility will be directed to the receiving area. The compost facility personnel will typically conduct a load check upon deposition. Contaminated and non-compostable materials will either be returned to the hauler or placed in a bin located near the receiving area.
- The green/co-collected material will be processed in a portable grinder in the Processing Area and deposited directly into the windrows. A front-end loader will be used to feed the material into the grinder. The ground material will be formed into elongated windrows for on-site composting. Only small percentages of food waste that arrives as co-collected material will be composted in windrows.
- The material is formed into trapezoidal-shaped windrows. Windrows are approximately 25-feet wide, 9-feet high, and have varying length. Windrows are separated by a minimum 8-foot wide access road for windrow loading, monitoring, watering, and turning.
- At each composting location, the identity of each windrow is designated by an identification number on the site composting schematic. All information pertaining to each pile will be documented in site records, allowing identification of pile status (e.g. start date, temperature readings, turnings, and sampling) and allowing site personnel to isolate material awaiting testing results. The numbers assigned for each pile will be unique and will not be repetitive.
- The temperature and moisture of the windrow materials will be monitored and controlled, and the windrows turned on a regular basis so that the composting process is maintained. New materials will subsequently be added to the newest side to lengthen the windrow. A front-end loader and/or a windrow turner will be used to turn the windrows. Windrows will be turned to meet the time and temperature requirements as discussed below, wind permitting, for an anticipated period of ten to fourteen weeks.
- Water will be added as necessary to the compost windrows to maintain the appropriate composting moisture and control dust. A water truck, dedicated to the compost facility, will be used to spray water while driving down the pathways between the windrows. The frequency of spray irrigation will vary with the season. The water truck will also be used to control dust generation during grinding or screening and be available for fire protection.
- During the pathogen reduction phase, the process of turning windrows provides sufficient oxygen to sustain the biological activity and keep the material at a temperature of 55 degrees Celsius (131 degrees Fahrenheit), or higher, for a period

of 15 days, or longer, which meets regulatory pathogen reduction requirements (14 CCR §17868). There will be a minimum of 5 turnings of the windrow during a 15-day period during which readings such as temperature and oxygen content are monitored and documented on a daily basis. For management purposes, upon completion of the pathogen reduction phase, temperature of the windrows is measured as needed to properly manage process and minimize fire danger and produce optimum end product. When the desired level of decomposition has been achieved, the compost materials will be screened, then moved to the curing areas for a six-week period or left in place until shipment from the site.

- Compost product will be sampled at a frequency of one composite of twelve samples per each 5,000 cubic yards for the metals constituents required by 14 CCR §17868.
- At the start of all composting cycles, temperatures will be taken and recorded daily to confirm satisfactory results. Temperature measurements will be taken at 1.5 to 2 feet below surface for the elongated windrow process. The minimum frequency for temperature readings for composting method will be based on a 200 cubic yard volume per reading.

Procedures for taking temperatures:

- Temperature probes 3 feet long, with a dial on one end and a thermocouple on the other will be used for taking temperatures.
- Depths at which the temperatures will be taken as discussed above.
- The same person taking the temperatures using the same technique each time will be utilized whenever possible to aid in eliminating variables.
- Points for probe insertion shall be chosen to produce the most representative readings of internal temperatures.

The total time feedstock remains at the facility using the elongated windrow method is approximately 13 weeks. After the compost process, the material will be cured an average of 30 days. The finished product will be stored on-site until the product is shipped off to market.

Compressed Windrow Method

Compressed windrows are managed in essentially the same way as the elongated windrow method with respect to monitoring, tracking, and pathogen reduction. However, there are a few differences related to the geometry of the pile.

- The material is formed into trapezoidal-shaped windrows. Windrows are approximately 60 feet wide, 15 feet high, and have varying length. Windrows are separated by a minimum 8-foot wide access road for windrow loading, monitoring, watering, and turning.
- Compressed windrow composting operates in a 'plug-flow' manner where the material is introduced to the windrow and then removed from the compost process with a retention time of 13 weeks for composting, and approximately 30 days for

curing. Front-end loaders will re-stack the compost approximately 15 feet laterally from its original position. In this way composting material migrates from one end of the windrow to the other in a wave like motion. During this cycle, organic material is exposed to the inner-core with temperatures ranging between 54 to 60° Celsius, well within the range for pathogen reduction. Turning of this windrow will follow the 15-day, five turning method for elongated windrows. The timing of the turning of the material in the compressed windrow during this initial 15 days and beyond will be coordinated with the temperature measurements.

#### Covered Aerated Static Pile (ASP)

Covered ASP systems are designed as a cost-effective system for controlling potential environmental impacts (including storm water contamination and odors) and maintaining optimal pile conditions during composting. It combines either a waterproof, synthetic fabric cover, or a cover consisting of finished compost and/or compost overs, with a computerized aeration control technology to optimize composting conditions for all types of feedstocks. When the impermeable cover is used, the forced aeration is typically under negative pressure, with the exhaust gas passing through a biofilter before discharge. In the case of a layer of finished compost or compost overs, the forced aeration is typically positive, with the layer of finished compost or other suitable material serving as the biofilter.

The project proposes a new covered composting system based on the AC Composter system developed and provided by Engineered Compost Systems (ECS) of Seattle, WA. This is an aerated static pile composting system that can either use a tough ultraviolet (UV) resistant and impermeable fabric cover, or operate with a layer of finished compost or compost overs in place of the synthetic membrane. The compost will be contained within three-sided bunkers (i.e., open on the front). Compost piles will be aerated via an in-floor trench system. The ECS AC Composter system is designed to receive incoming wastes that have been ground, mixed and moisture conditioned to just over 60 percent moisture. The prepared wastes, consisting of a mixture of co-collected green waste and food waste, are then placed into concrete bunkers sized 29 feet wide by 90 feet long, with the piles stacked by front-end loader up to 10 feet high. Compost piles will be aerated via an in-floor trench system. The piles are then covered with the fabric (or stable organic material) and air is drawn, or pushed, through the pile (negative or positive aeration) at an aeration rate designed to maintain temperatures within the pile between 114 and 150 degrees Fahrenheit (°F) and maintain oxygen levels above 16 percent at all times. Alternatively, the piles can be covered with finished compost or compost overs for emission control. Retention time in the AC Composter is 30 to 45 days overall with turns occurring on about the 15th and 30th days to add water and re-mix the pile. Twenty concrete bunkers provide capacity to process 10,000 cubic yards or 4,350 tons at any given time. At the end of the 30 to 45-day cycle, the composted materials are removed and screened to remove particles over 1-inch in diameter, and then sent to a curing area to mature for an additional 30 to 60 days. The curing area may contain up to eighteen windrows that are generally about 20 wide at the base, 8 feet high, and 200 feet long, each capable of holding 1,000 cubic yards. A

windrow turner is then used to fluff and homogenize the curing windrows to allow natural aeration.

The covered ASP system uses computer-based control technology, although ASP systems can also be monitored and controlled manually. Compost pile temperature data is collected and stored on the computer and the individual batches of compost are easily tracked through the facility from start to finish. Air flow is automatically controlled per operator-chosen set-points. The system exhaust air is scrubbed in a biofilter constructed of wood chips in the case of negative aeration, and passes through the layer of finished compost and/or compost overs in the case of positive aeration. The aeration rates can be set very low to conserve moisture and fan power, without releasing odors. Prior to removing the cover the aeration is increased to lower temperatures and raise oxygen levels; this greatly diminishes the potential for odor releases. The use of an aeration floor facilitates implementation of aerated static piles.

#### Cover Systems

The synthetic ASP cover is designed with straps for handling and securing it and may be placed and removed manually or with mechanized cover-rollers. The cover may be held in place by the aeration system which operates with negative suction that holds it firm against the pile or, in the case of positive aeration, use of perimeter weight at the base of each ASP. The impermeable cover over the ASP eliminates rain percolating through the pile and therefore reduces leachate generation.

Alternatively, a layer of finished compost or compost overs with a thickness of 12 inches can be used to minimize storm water infiltration due to its absorptive capacity, and reduce air emissions by oxidizing gaseous compounds. The compost cover layer is incorporated into the feedstock when the pile is turned. With either a compost cover or an impermeable plastic cover, the system could potentially be operated under either negative or positive pressure depending upon the type of synthetic cover technology.

Biofiltration is a well known treatment technology that has consistently documented destruction efficiencies of over 90% for VOCs. A pilot-scale experiment done at California State University, Fresno, demonstrated a 99% destruction efficiency for VOCs. Tests conducted at the Inland Empire Regional Compost Facility resulted in a measured VOC destruction efficiency of 94%. Additionally, the South Coast Air Quality Management District (SCAQMD) published a list of operational biofilters and estimated destruction efficiencies ([http://www.aqmd.gov/rules/doc/r1133/app\\_c\\_biofilter.pdf](http://www.aqmd.gov/rules/doc/r1133/app_c_biofilter.pdf).)

Additionally, very high destruction efficiencies for methane and nitrous oxide have been demonstrated. A pilot-scale experiment done at California State University, Fresno, during the summer of 2009, demonstrated a 99.7% destruction efficiency for methane and 97.1% for nitrous oxide.

CalRecycle conducted a study at a compost facility in Tulare, California, in the summer of 2012 (CalRecycle, 2013). A 12-inch layer of finished, unscreened compost was used as a biofilter layer. The green waste material was composted using positive, forced aeration. Emission reductions for VOCs of 98.8% were achieved relative to the control

windrows over the first 22 days of active composting, which is a reduction of 98.1% relative to the San Joaquin Valley Air Pollution Control District VOC emission factor of 5.14 lbs. VOCs/ton of compost feedstock. Reductions of ammonia were measured at 83.2%, a 13% reduction for methane and an 88.8% reduction for nitrous oxide. When extrapolated to a 60-day cycle, including the 22-day active compost phase and 38-day curing period, the emissions reductions for the ASP system are: VOCs – 98.9%; NH<sub>3</sub> – 94%; CH<sub>4</sub> – 55%; N<sub>2</sub>O – 70%.

Emissions testing of volatile organic compounds was also done at a compost facility in Modesto, sponsored by CalRecycle (CalRecycle, 2008). A layer of finished compost was placed over a test windrow; however, the windrow was managed as an open windrow without forced aeration. Nonetheless, the approximately six inch layer of finished compost reduced emissions over the first 7 days of the trial by 82% relative to the control. When averaged over the first 14 days, the measured emission reduction was 75%.

#### Aeration Floor System

An aeration floor is where the aeration system is built into a concrete slab upon which the compost feedstock is placed. Although capital costs are higher for in-floor aeration systems, durability is high and collection of liquids is facilitated. An image of an aeration floor system is shown below in Figure 1. The aeration floor can be operated with either positive or negative aeration.



**Figure 1. Aeration Floor with Concrete Bunker Compost System**

#### Elongated Aerated Static Pile

- Incoming trucks will be received and weighed at the scale located near the entrance to the facility. The scale personnel will direct haulers to the composting facility after a

cursory load check. Appropriate signage in conformance with the requirements of 14 CCR §17867(a)(7) will be placed within the composting facility.

- The source separated green materials delivered to the compost facility will be directed to the receiving area. The compost facility personnel will typically conduct a load check upon deposition. Contaminated and non-compostable materials will either be returned to the hauler or placed in a bin located near the receiving area.
- The green waste, green material and food waste will be ground and mixed in the processing area and deposited directly into the static piles. The ground material will be formed into elongated piles over a computer controlled aeration system for on-site composting as shown on the Site Plan.
- The material is placed into concrete bunkers with three walls (i.e. open on one end) that are approximately 30 feet wide, 10 feet high, and 90 feet in length.
- The identity of each ASP is designated by an identification number in the control system and on the operations diagram. All information pertaining to each pile will be calculated and stored in the computerized control system (and documented in site records) which will allow instant identification of pile status (e.g. start date, temperature readings and historical profile, air flow, and sampling) and allow site personnel to isolate material waiting testing results.
- The temperature and moisture of the ASP materials will be monitored and controlled, and the piles turned on a 15-day cycle so that the composting process is maintained and evenly distributed to all materials. A front-end loader will be used to move the ASPs, and ASPs will be maintained to meet the time and temperature requirements.
- Water will be added as necessary to the ASPs to maintain the appropriate composting moisture. Water will be sprayed under the weatherproof covers, or prior to placing the compost cover layer, as needed to maintain optimum composting conditions. The frequency of spray irrigation will vary with the season and moisture content of feedstock materials. A water truck may also be used to control dust generation during grinding or screening and be available for fire protection.
- During the pathogen reduction phase, the controlled aeration process in the covered ASP method provides sufficient oxygen to sustain the biological activity and keep the material at a temperature of 55 degrees Celsius (131 degrees Fahrenheit), or higher, for a period of 3 days, or longer, which meets regulatory pathogen reduction requirements (14 CCR §17868.3). There will be a minimum of 2 rotations of the ASP during a 45-day period during which readings such as temperature and oxygen content are monitored and documented on a continual basis. For management purposes, upon completion of the pathogen reduction phase, temperature of the windrows is measured automatically and aeration flow rates are adjusted by the control system as needed to properly manage the composting process, minimize fire danger, and produce optimum end product. When the desired level of decomposition

has been achieved, the compost materials will be screened, then moved to the curing areas for a two to six-week period or left in place until shipment from the site.

- Compost product will be sampled at a frequency of one composite of twelve samples per each 5,000 cubic yards for the metals constituents required by 14 CCR §17868.2.
- From the start of all composting cycles, temperatures will be taken and recorded automatically, and monitored daily to confirm satisfactory results. Temperature measurements will be taken at 12 to 18 inches below surface for the ASP process. The minimum frequency for temperature readings for this method will be based on a 200 cubic yard volume per reading.

Procedures for taking temperatures

- Temperature probes 1 to 2 feet long, with a dial on one end and a thermocouple on the other will be used for taking temperatures. The temperature probes will transmit readings to the control system via hard-wire or radio frequency connections.
- Depths at which the temperatures will be taken as discussed above.
- Personnel monitoring the temperatures will be trained in proper placement of probes and standard operating procedures, which will be utilized whenever possible to aid in eliminating variables.
- Points for probe insertion are constructed into the cover and are designed to produce the most representative readings of internal temperatures.

Following ASP composting (approximately 45 days) the material is to be cured an average of 15 to 30 days. The finished product is then stored on-site until the product is shipped off to market.

Leachate Management

Leachate generated in the ASP system is captured via floor aeration trenches and gravity drains into below-grade sumps. From the sumps, the liquids would be pumped into two 16,500-gallon above ground storage tanks. The storage tanks would be equipped with a fine-bubbler system to provide aeration with the emissions being treated in a biofilter. Leachate from the tanks would be reused as a source of moisture when preparing feedstocks for composting. Allowances would also be made to allow the surplus leachate be pumped to transfer trucks and be disposed of offsite at a licensed wastewater treatment plant.

## **B. DESCRIPTION OF OPERATIONS CONDUCTED AT THE FACILITY**

### Material Delivery

Current permitted hours of operations are the receipt of commercial vehicles from 5 am to 5 pm; public vehicles from 8 am to 5 pm, and composting operations from 8 am to 5 pm, Monday through Sunday. However, the proposed facility will have several operational areas that operate 24 hours per day, seven days per week. In particular, the aerated static pile compost system will provide air flow to the composting materials 24 hours per day, seven days per week. The biomass gasification unit will also operate all of the time, as well as the anaerobic digestion facility. Therefore, they may be employees on site at any time of the day or night to monitor, repair or otherwise operate these systems. However, receipt of materials and loading and unloading of will continue to occur between the hours of 5 a.m. to 5 p.m.

### Material Processing and Load Checking

All incoming feedstock is source-separated at the point of generation. When a truck enters the facility, it is weighed and the organic material is unloaded from the trailer. MDF conducts random load checks of incoming material for contaminants. Load checking is done by spreading out the material and having a qualified employee sort through the material, looking for and removing contaminants. The employee who performs the load checks and sorting is trained in the proper method of spreading out material to make sorting most effective, what contaminants to look for and the proper method of disposing of possible contaminants in the load. At a minimum, one truckload, or 10 percent of the truckloads delivering material, whichever is greater, is surveyed each day that the site receives incoming material. MDF keeps records of loadchecks performed, the contaminants found, how the contaminants were disposed of, and the loads rejected.

Upon receiving incoming green waste that has not been pre-processed, Napa MDF grinds the material into pieces that are 3 inches and less in size, unless it has been processed elsewhere prior to delivery or is already of adequate size and quality.

MDF will process and place material containing food waste under active composting within 48 hours, including co-collected green waste/food waste. Clean green waste containing no food waste will be processed and placed under active composting within 72 hours.

### Composting

After processing, compost feedstock will be placed in the concrete bunkers on the aeration slab and subject to aerated static pile composting, as previously described. Temperature readings will be performed to assure that pathogen reduction is achieved. Following 4 to 6 weeks in the aerated static pile system, the composted material will undergo three to four weeks of curing.

### Finished Compost

The finished compost will be screened, with the smaller diameter material being used as soil amendment and the larger diameter material being sold for biomass or reground



and screened. During the screening process, metals will be screened out using a magnet attached to the screen and grinder. The metals screened out of the material will be containerized and delivered to an appropriate facility for additional processing or disposal. Finished compost may be blended with the aforementioned additives or amendments prior to delivery to markets., MDF will test for heavy metals and pathogens for every 5,000 cubic yards of compost produced, in accordance with 14 CCR 17868.1, 17868.2, & 17868.3. The compost samples are analyzed for maximum acceptable metal concentrations of arsenic, cadmium, chromium, copper, lead, mercury, nickel, selenium, and zinc by a laboratory certified by the California Department of Health Services.

The MDF equipment operator will be trained using the equipment-operating manuals, hands on training by the present employee/operators and ongoing safety programs.

Employees are trained by experienced personnel on maintenance of equipment, technical aspects of composting procedures, and safety precautions.

#### Anaerobic Digestion

The project includes the installation of anaerobic digesters in the south central portion of the site (see Sheet 1 in the "Site Plans" Section/back of binder) to process a mixture of food waste and green waste, and create a byproduct of renewable compressed natural gas to fuel the waste and recycling vehicle fleet. This portion of the facility is described in detail in an accompanying Transfer Processing Report.

Anaerobic digestion (AD) is a process in which microorganisms are used to break down organic material in the absence of oxygen. In the process, a biogas consisting of methane, carbon dioxide, and trace gases are produced that can be used as a renewable energy source. This technology is widely used in the wastewater industry and now considered a potential option to treat organic wastes. Two types of AD systems for waste substrates exist and are identified by the form the feedstock needs to be in order to be processed. The first is the "Dry" AD system which processes wastes in its drier, stackable form such as fresh food and yard waste. The other is the "Wet" and high-solids slurry AD systems that handle wastes that are in liquid or slurry form, which in the case of food waste can be liquefied with the addition of water. The dry AD system is the selected technology for this project because of its ability to accept yard waste. If anaerobic digestion system is offline for an extended period, the food waste could be blended with green waste and placed in the covered aerated static pile compost system.

The dry systems involve stacking wastes in an enclosed tunnel. While within the tunnel, liquids that percolate through the wastes are re-circulated back into the material to maintain nutrients, microorganisms, and provide sufficient moisture for the digestion process.

The SmartFerm system proposed for the facility involves receiving food and green waste, blending them together, and placing the blend in anaerobic digesters that are approximately 40 feet long, 12 feet wide, and 12 feet high, although the stack height of waste material is about 8.5 feet. The blended organics are then subject to aeration for

up to 1 day to initiate aerobic composting and rapidly increase the temperature of the organics to 120 to 130°F. Then, heated liquid percolate (~131°F) is circulated through the organics to initiate and promote anaerobic digestion. The liquid percolate is the liquid that has leached out of other digesters and serves to inoculate and increase the moisture content.

Biogas is recovered and sent to a biogas upgrade system that cleans the biogas to fuel quality. The purified flow of biomethane is then compressed, stored and made available as compressed natural gas through an on-site fueling system that will be used to fill waste collection vehicles. The waste gas from the biogas purification system, comprised of about 15% methane by volume, would be flared to prevent atmospheric methane emissions. An industrial boiler will be used to heat the percolate and maintain the system at thermophilic temperatures. After a retention time of 21 - 28 days in the AD system, biogas generation is exhausted and the digestate is removed and placed in an in-vessel composting chamber for 4 to 5 days or in the covered compost system. To meet U.S. Composting Council's (USCC) Seal of Testing Assurance (STA) threshold guidelines, the material will then be further cured between 3 to 4 weeks after being removed from the in-vessel composting chamber.

Napa's proposed facility will generate bio-methane from organic waste derived from various blends of food waste and green waste to total 25,000 tons per year of combined source separated mixed organic feedstock. Yard waste will be delivered in sufficient quantities to provide adequate structural material. Feedstocks for the digester are expected to include primarily commercial food waste and food processing waste (primarily grape pomace), and small amounts of manure (primarily horse manure and bedding).

The City is currently composting approximately 150 tons per month of commercial food waste under the *Food Waste Research Composting Operation* permit issued by the Napa County Local Enforcement Agency (LEA). Napa expects collection of source-separated digestible organic waste to increase quickly to approximately 5,000 tons per year, and may rapidly increase to reach 25,000 tons per year within the foreseeable future if wastes from surrounding areas are added. The AD Digesters may be installed in 2 phases, each with a capacity of 12,500 tons per year.

#### Biofilters and Compost Cover Layers

Maintenance of the biofilters and compost cover layers requires adequate moisture control on an on-going basis, and replacement of biofilter media every 18 months to 2 years. Moisture control for biofilters involves monitoring with a telemetry computer system with moisture strictly maintained to ensure performance. For compost cover layers, sprinkler systems that provide moisture as needed are used. With respect to replacement of the biofilter, that could be performed over one weekend without disrupting on-site operations. Compost cover layers are incorporated into the composting material when it is turned. Routine monitoring of the biofilter temperature and back-pressure will be done (both of which can be automated as part of CCST and IVC systems). Air distribution will also be assessed regularly (at least weekly) by

observing consistency of steam patterns on the media surface in the early morning. It is also be beneficial to conduct periodic measurement (e.g. every 6 months) of moisture content and pH, and visually inspect the media degradation.

#### Biomass Conversion Unit

A biomass conversion system is also proposed that would use chipped, clean, woody material as a fuel. The system would be capable of producing one megawatt of power and could be used to satisfy on-site electrical needs and/or provide energy to the grid. Installation of a biomass conversion system for energy generation would include the following components:

- Conveyer system for fuel loading,
- Biomass gasification unit,
- Syngas cleaning system,
- Power generation system.

The biomass conversion system operational area and wood chip fuel storage location are shown on the Site Plan (back of binder.)

The biomass gasification unit would operate 24-hours a day, seven days per week, operating at 80% capacity, and utilize an average of 32 tons per day of clean wood chips, or a peak of 40 tons per day, that would be processed on-site at the adjacent Compost Facility. Should the biomass gasification unit be off-line for an extended period of time, the wood chips would be hauled to the Central Valley biomass power plants that receive the wood chips today.

Biomass conversion systems generate electricity through the transformation of the solid woody biomass into a “syngas”, known as synthesis gas, and the combustion of the syngas in an internal combustion engine. The syngas is cleaned through a variety of standard filters specific to syngas to remove entrained solid particulars, condensed tars, and trace contaminants. The treated syngas is then combusted in the internal combustion engine with a heat exchange system (Genset with accessories), that involves “rich” burn engines, catalytic convertors controls and is used to control nitrogen oxides, reactive organic gases and carbon monoxide. Gasification is the thermochemical conversion of woody biomass into a syngas under controlled temperature and oxygen conditions. The syngas formed by gasification is composed primarily of hydrogen, carbon monoxide, and some methane. Gasification produces a solid carbon biochar that is a valuable fertilizer and soil amendment, and serves as a highly effective sequestration media for carbon.

### **C. SCHEMATIC DRAWING OF THE FACILITY SHOWING LAYOUT AND GENERAL DIMENSIONS OF ALL PROCESSES UTILIZED IN THE PRODUCTION OF COMPOST INCLUDING UNLOADING, STORAGE, PROCESSING, PARKING, AND LOADING AREAS**

The Site Plan for the compost facility is provided in the “Figures” section of this binder.

#### **D. DESCRIPTION OF THE PROPOSED METHODS USED TO CONTROL LITTER, ODORS, DUST, RODENTS, AND INSECTS**

##### Litter

MDF will effectively remove on-site debris and litter (plastic, etc.) daily. On-site litter will be removed by raking, picking-up and containerizing for off-site disposal. MDF staff will conduct daily monitoring – both on and off site – to identify potential litter accumulation. In the event that litter leaves the MDF property, the litter is picked up and disposed of within two hours of being detected.

##### Odors

MDF will conduct site operations in accordance with the Odor Impact Minimization Plan (OIMP) provided in Appendix D which outlines best management practices for reducing odor at the facility.

The primary focus of the proposed changes to the MDF is to contain and control odors. Odors are generated from organic wastes as they are received, processed, composted and transported on site. Fresher organic materials and hot organic materials create and emit more odor than older and cooler materials. The odor characteristics also change substantially as the organic materials move through the digestion and composting process.

Odor management considerations in these conceptual layouts include the following:

- Reducing the time materials are stockpiled before processing
- Unloading and processing of fresh organic wastes are performed under cover within a building
- Performing the digesting and composting within vessels that contain and treat emissions during heating and active biological decomposition
- Biofiltration treatment of air that is collected from the receiving buildings and decomposition processes
- Cleaning traffic areas of any spilled or tracked materials
- Aeration of any collected water that has high biological oxygen demand (BOD)

Odor is significantly minimized after the active decomposition phase, however, dust control and process management must still be maintained to limit emissions off-site. Screening operations will continue to use misting systems to reduce dust, and windrow turners will add water to maintain proper moisture levels in curing windrows.

##### Dust

MDF has a water truck that will be used to control dust on site. MDF will wet down dusty areas at least once a day during dry times of the year. The water truck will wet down these areas more than once a day when the need arises. To control dust on the windrows that are actively composting, MDF will keep the windrows at a moisture

content of approximately 50 to 60 percent. The moisture content of finished product and amendments will be kept between 20 percent and 30 percent in order to avoid dust problems.

### Vectors

MDF will grind the clean, green material within 72 hours after it enters the facility. Green waste with up to 10% food waste and source separated loads of food waste will be actively composting within 48 hours.

Measures used to control flies are listed below:

- A fly control program has been implemented with the assistance of a company that specializes in fly control at dairies.
- Traps, ground dwelling parasitic larvae and parasitic wasps are employed to control flies. These parasites attack the fly pupa prior to hatching, thereby reducing the population significantly.
- The fly control program begins in March and continues through mid- October. Employing the fly control methods prior to the establishment of a fly population is effective at preventing a fly population from establishing.
- Solar fly traps are also placed throughout the facility and especially around the food waste piles and they are quite effective.
- Organic insecticide is sprayed on the feed stocks. The insecticide is sprayed via water truck in dilution and a towable tank is being built this spring. Piles that may need more control can be sprayed by a backpack-style pump.

In the event that excessive flies occur, MDF will spray with an organic Pyrethrin spray to eradicate the flies. MDF will also use portable Flying Insect Traps to capture flies in and around the facility. Monitoring for unacceptable level of vectors at the site will be a fly grill survey with a value of six or more domestic flies at a density of three or more per square yard of surface area at any one location of the site, the trapping of one or more domestic rats anywhere on the site, observation of five or more field rodents feeding or bedding in the green material at the facility, and the observation of any immature mosquito stages from water ponded at the facility. In the event that any of these thresholds is exceeded, MDF will immediately take steps to reduce the level of vectors to below threshold concentrations. Acceptable methods of control include traps, baits, biological controls, or other proven methods of vector control. MDF will determine which material is attracting or propagating vectors and treat, process, or remove that material to abate the vector problem to acceptable thresholds. Mosquitoes exceeding the threshold shall be abated by removing ponded water or consulting the Sacramento-Yolo Mosquito and Vector Control District and complying with their control recommendations.

Monofilament line suspended between buildings will continue to be used as a bird control method. Additional poles would be installed on the CCST bunker walls to allow for more extensive coverage. Expansion of the Receiving and Processing Building will also take into account bird controls by minimizing potential perches, utilizing mist, netting or other barriers internally, and installing coils or spikes on selected horizontal surfaces. Food waste collection and processing areas provide a continuous source of food for rodents. Bait boxes or traps would be installed and maintained by a pest management service with adequate service frequency to assure that rodents are kept to a minimum. Construction details near walls and posts would be designed to reduce rodent harborage. Residuals with raw food wastes comingled with them will be stored in lidded leak-proof containers and removed frequently to reduce their odor vector attraction potential.

#### Noise

Having and maintaining mufflers on all equipment minimizes excessive noise at the MDF facility. The engine-generator system used to generate electricity from the Syngas will be housed in a sound-attenuating structure.

### **E. DESCRIPTION OF EMERGENCY PROVISIONS FOR EQUIPMENT BREAKDOWN OR POWER FAILURE**

MDF has equipment available at its affiliated companies and accounts with numerous equipment leasing agencies. MDF will borrow or rent the necessary equipment until repairs can be made, including power generation equipment. Two sources for rental equipment are:

- Volvo Rents - 5505 Highway 29, Napa Valley, CA, 94503
- United Rentals, 1855 Soscol Ave, Napa, Ca. 94558

In the event that emergency equipment is necessary, the equipment can be on site within 24 hours.

When the biomass gasification unit is in operation it will provide power to the facility.

### **F. DESCRIPTION OF STORAGE CAPACITY AND ANTICIPATED MAXIMUM AND AVERAGE LENGTH OF TIME COMPOST WILL BE STORED AT THE FACILITY**

A compost storage plan has been developed for the scenario of peak daily material delivered of 400 cubic yards per day.

The following retention times are used in the compost storage plan development (Table 4).

**Table 4. Retention Time for Various Organic Materials (days)**

| Feedstock Type                        | Feedstock Storage Days | Active Composting (ASP, AD, WR) Days                   | Curing Days | Finished Product |
|---------------------------------------|------------------------|--------------------------------------------------------|-------------|------------------|
| Clean Green Waste                     | 3                      | 45 – ASP<br>28 – AD<br>63 - WR                         | 30          | 60               |
| Green waste with up to 10% Food Waste | 2                      | 45 – ASP<br>28 – AD<br>63 - WR                         | 30          | 60               |
| Wood waste                            | 7                      | Storage prior to use as a biomass fuel, on or off-site | NA          | NA               |
| Food Waste Only                       | 1                      | 45 – ASP<br>28 – AD<br>63 - WR                         | 30          | 60               |

The following densities are used in the calculations:

Green waste = 650 lbs./cy; Food waste = 1,100 lbs./cy; Green waste/food waste at 60/40 blend = 750 lbs. /cy; Finished compost = 900 lbs. /cy; Clean wood = 169 lbs./cy

#### **G. DESCRIPTION OF COMPOST EQUIPMENT USED AT THE FACILITY INCLUDING TYPE, CAPACITY, AND NUMBER OF UNITS**

Equipment required at the facility for the proposed operations are shown in Table 5. Anticipated equipment needs at the permit limit of 400 tons per day peak inflow are shown in Table 5.

**Table 5. On-Site Equipment**

| TYPE AND NUMBER OF FACILITY EQUIPMENT |        |        |                                   |                                     |               |
|---------------------------------------|--------|--------|-----------------------------------|-------------------------------------|---------------|
| Type                                  | Fuel   | Number | Operating Hours                   | Model                               | Tons Per Hour |
| Grinder <sup>1</sup>                  | Diesel | 1      | 60 hours/week                     | 2005 Universal Refiner Grinder      | 45            |
| Screen                                | Diesel | 2      | 8 hours/day                       | 2000 830 Powerscreen Trommels       | 100           |
| Front-End Loader                      | Diesel | 3      | 8 hours/day                       | 2005 John Deere 624K                | NA            |
| Service Truck                         | Diesel | 1      | 6 hours/week                      | Volvo/White                         | NA            |
| Water Truck                           | Diesel | 1      | 5 hours/day summer<br>0 in winter | 2004 Freightliner:<br>2,500 gallons | NA            |

|                  |          |   |                |        |    |
|------------------|----------|---|----------------|--------|----|
| Air Compressor   | electric | 1 | 1 hr/day       | Airman | NA |
| Concrete Crusher | Diesel   | 1 | 24 hours/month | Terex  | 50 |

#### **H. ANTICIPATED ANNUAL OPERATION CAPACITY FOR THE FACILITY IN CUBIC YARDS**

The proposed facility's operational capacity is 25,000 TPY for anaerobic digestion, 30,000 TPY for covered aerated static pile, and 11,640 TPY for windrow composting. The proposed project would increase the maximum permitted volume on site from 60,000 cubic yards to 90,000 cubic yards, including feedstock, active and curing compost and finished product.

#### **I. DESCRIPTION OF PROVISIONS TO HANDLE UNUSUAL PEAK LOADING**

In the event of unusual peak loading, MDF will rent equipment and hire contract labor as needed to handle the increase in material. MDF-affiliated companies provide a large proportion of materials for the facility which can be controlled when necessary. MDF will notify outside clients not to bring additional material if the maximum daily peak of 760 tons per day is approached. Loads which may cause an exceedance of the permitted capacity will be directed to other regional compostable materials handling or disposal operations.

#### **J. DESCRIPTION OF PROPOSED METHOD FOR STORAGE AND FINAL DISPOSAL OF NONRECOVERABLE OR NONMARKETABLE RESIDUES.**

Of the compostable green material that MDF receives, MDF produces approximately 1 cubic yard of nonmarketable residue for every 100 cubic yards of marketable material. These contaminants are screened out of the compost and stored until they can be shipped to the local landfill or recycled.

Experience in other jurisdictions indicates that between 5 and 10 percent of the material collected through commercial and residential food waste diversion programs is typically non-organic or otherwise unacceptable. These "contaminants" must be removed from the feedstock at some point during the treatment process. Residuals would be handled manually and removed at various points during the pre-processing, composting and screening stages. Depending upon the point at which they are removed from the process and their characteristics, it may be possible to re-introduce and re-process a portion of them. However, generally, the residuals would not be suitable for use as soil amendments.

Residuals would be stored in 40-cubic-yard roll-off containers prior to being transported offsite for disposal. Residuals with raw food wastes comingled with them



will be stored in lidded leak-proof containers and removed frequently to reduce their odor vector attraction potential.

**K. DESCRIPTION OF THE WATER SUPPLIES FOR PROCESS WATER REQUIRED**

MDF has a 50 horsepower pump with a 4,000-gallon storage tank. The well is located near the entrance of the property (see site map). Storm water can also be drawn from on-site retention basins for use as process water.

**L. IDENTIFICATION OF PERSON RESPONSIBLE FOR OVERSIGHT OF FACILITY OPERATIONS**

The person responsible for overseeing the facility is Greg Kelley, manager, and Will Cook, daily on-site foreman.

**M. DESCRIPTION OF THE PROPOSED SITE RESTORATION ACTIVITIES**

In the event that site restoration is necessary, MDF will provide the Local Enforcement Agency with a written notice of intent to perform site restoration thirty days in advance. All composted material will be sold through a compost broker. The uncomposted material will be chipped and ground; the ground material will be transported to biomass facilities and companies that broker organic material. MDF will ensure that there are no residues remaining in the composting area or the ponding area. All the machinery will be removed and any structures left clean.

**N. ODOR IMPACT MINIMIZATION PLAN**

An Odor Impact Minimization Plan is attached as Appendix D.

**City of Napa MDF  
Odor Impact Management Plan  
Updated December 7, 2009**

Napa Recycling & Waste Services (NRWS) has implemented this Odor Impact Minimization Plan for operation of the City of Napa MDF.

This document presents a summary of the plan for managing the composting operation at the MDF and controlling off-site odor impacts from the facility. Under the terms of the contract with the City, NRWS implemented turned windrow composting when it commenced commercial operation of the facility in October 2005.

NRWS proactively observes and aerates the facility's ponds along the guidelines outlined in the comprehensive plans and monitors composting area odors daily in the temperature logs. If odor problems occur during turned windrow operation, NRWS performs the remedial measures specified in the plan for Best Management Practices (BMPs). The BMPs identified for the composting operation are based on an evaluation performed by CalRecovery, Inc. (*Results of Odor Analysis and Preliminary Odor Contingency Plan for Napa Materials Recovery and Composting Facility*, February 2005, Appendix 1).

**Odor and meteorological monitoring**

CalRecovery, Inc. undertook an odor analysis of the facility, and the findings are detailed in the 2005 report. This includes information regarding the historical locations of odor complaints, as well as meteorological patterns for the facility.

Possible odor receptors include light industrial operations directly to the north and east, office buildings in the Napa Airpark complex to the northeast, industrial operations to the south, the Napa County Airport to the west, and the Highway 29 corridor to the east.

Odor impacts at these locations are dependant upon facility operations and weather conditions. In addition, the meteorological conditions, most notably wind speed and direction, are used to assess odor impacts on possible odor receptors. The first course of action in case of odor problems is for NRWS to employ operational modifications; for example, curtailment of compost turning operations during adverse meteorological conditions.

As noted in the CalRecovery report, the prevalent wind direction from January to April is from the north/northeast (which does not generally lead to complaints of odor from the Facility). During the months of May through July, the wind blows predominantly from the south/southwest. Additionally, the wind velocity increases substantially in the late afternoon during certain times of the year. Odor complaints are generally expected to come from downwind locations within one-half mile of the facility, during periods of low wind velocity and relatively stable atmospheric stratification.

NRWS recently purchased a state-of-the art meteorological monitoring system for the facility. The system, which should be operational by the beginning of 2010, will monitor the meteorological conditions of the composting area and will have a terminal located inside the MDF office. Meteorological readings will enable NRWS to control compost conditions and effectively manage the ponds.

The system is the Wireless Vantage Pro2™ Plus, including UV & Solar Radiation Sensors. Details include the following: This is the first and only weather station in its class to use frequency hopping spread spectrum radio technology to transmit weather data wirelessly up to 1000' (300 m). It includes a Vantage Pro2 console/receiver, integrated sensor suite (ISS), and mounting hardware. ISS includes rain collector, temperature and humidity sensors, anemometer, 40' (12 m) anemometer cable, solar radiation sensor, UV sensor, sensor mounting shelf, and solar panel. Temperature and humidity sensors are enclosed in standard radiation shield.

The ISS is solar powered. Electronic components are housed in a weather-resistant shelter. Wireless range is up to 1000' (300 m) outdoors, line of sight. Typical range through walls under most conditions is 200' to 400' (60 to 120 m).

### **Possible Causes and Sources of Odor**

- Raw feedstock storage piles
- Shredded feedstock storage piles
- Windrows
- Processing screen
- Curing compost storage piles
- Storm water containment ponds

Some of the odor problems originate from the storm water management system. The possible causes of the odor are:

1. Composting conditions – Foul odors develop under anaerobic conditions. If aerobic conditions are not maintained, anaerobic decomposition takes place, which generates highly odorous compounds such as hydrogen sulfide and organic acids. An adequate supply of oxygen is crucial to efficient composting.
2. Storm water/leachate – Leachate from the composting areas may contain very high biochemical oxygen demand (BOD), especially during composting of grape pomace during the harvest. High BOD creates anaerobic conditions by depleting the oxygen in the storm water management ponds.

### **Odor Complaint Response Protocol**

This section describes the procedures for responding to a substantial odor incident or incidents and is based on information from CalRecovery's 2005 report.

1. Whether NRWS or the City receives an order complaint, the complaint is recorded in writing (complainant if known, date, time of day, alleged source, and local meteorological conditions), and the non-notified entity shall be also informed via telephone call at soon as possible.
2. NRWS/City of Napa sends an investigator to location of odor complaint to detect type of odor.
3. NRWS/City of Napa immediately examines the meteorological data from the meteorological system installed at the Facility. NRWS/City of Napa correlates the meteorological data with odor characteristics to aid in the identification of which odor generator is the likely source.
4. The NRWS Compost Supervisor is contacted for information on current feedstocks and operating conditions.
5. Based on the information, a determination is made about the likelihood of the Facility being the source of the malodors.
6. If the malodors are traced to the Facility:
  - a. Estimate the potential odor impacts on nearest human receptors and identify the local factors that govern intensity of odors being observed offsite;
  - b. Analyze quantities and characteristics of organic wastes received at the Facility and, describe the potential sources of odors (e.g., retention ponds, windrows, etc.), and determine potential methods of preventing or controlling odors as a function of odor source;
  - c. Select method(s) of control and implement it(them). Monitor effectiveness;
  - d. Conduct pilot tests at the Facility as needed to evaluate methods of reducing odor generating potential, including changes in operating practices, etc.

### **Odor Control Strategies**

NRWS uses the Best Management Practices (BMPs) identified in the CalRecovery report during composting operation, including proper and adequate turning of windrows, control of moisture content, and control and treatment of leachate.

If odor complaints arise, NRWS records each complaint in a logbook indicating the complainant if known, location of the alleged source of the odor within the Facility, and the local meteorological conditions (the latter conditions entered into the logbook as soon as possible but in no case more than 10 minutes after receipt of the complaint). NRWS investigates the source of the odors immediately. NRWS identifies the problem and employs the required remedial measures to control the odors. The first course of remedial action in case of odor incidents is operational modifications of the composting system, including limiting turning of the windrows or compost storage piles during

adverse meteorological conditions, additional turning/aeration of the piles and/or reducing the height of them if they become anaerobic, and outfitting the compost screen and/or the compost storage piles with a protective cover to control dispersion of odor and nuisance dust. Proper composting operations are described in the *Napa Materials Diversion Facility Report of Composting Site Information*, October 2008.

Specific odor control strategies are:

1. NRWS conducts regular reconnaissance of the site for detection of existing odors and of potential sources of odor.
2. Proper operation of the compost pile: A proper operating environment, with proper carbon to nitrogen ratio, moisture content, oxygen level, temperature and pH, is helpful in minimizing odor events.
3. Preventing overloading to the storm water management system: Excessive runoff of leachate from the composting area to the storm water management system is prevented. Care is taken to divert surface waters away from compost or curing piles, thus reducing the polluted runoff to the ponds. Where feasible, windrows are configured perpendicular to slope to reduce accumulation of surface water. This results in reduced pollution of the surface water.
4. Solids management during dry and wet weather: Leachate resulting from dry weather compost pile moisture conditioning is stored in Pond 2. Accumulated solids in Pond 2 are allowed to dry by natural evaporation during dry weather. Prior to the beginning of winter storm events, the dry solids are removed from Pond 2. During the wet season, accumulated solids in Pond 2 are continuously removed to prevent anaerobic conditions. If necessary, clean supernatant from Pond 4 is transferred to Pond 2 to dilute and mix the solids, improving transportability of the accumulated solids. The wet solids in Pond 2 can be completely drained and transferred to the biofilter (Pond 3) or pumped out to the compost piles. The storm water from Pond 2 is used for compost pile moisture conditioning during the dry season. Permanent and portable pumps are used for water transfer between ponds.
5. Aeration of storm water ponds: Aerators were added to the leachate storage pond in 2006 to control odors. The aerators oxygenate the contents of Pond 2, helping prevent the creation of anaerobic conditions. Continuous aeration and mixing provides aerobic treatment by supplying dissolved oxygen for natural biodegradation in the pond, preventing odor events.

Please refer to the *Odor Management System Plan for Napa Recycling & Waste Services*, prepared by Summit Engineering, Inc., February 2006 (Appendix 2) for additional details concerning odor control strategies at the Facility.

---

If odor problems become unavoidable after implementation of all BMPs relevant to turned windrow composting, then one of the City's options under the Facility operating agreement between the City/NRWS is to direct NRWS to implement aerated static pile

(ASP) composting technology using positive aeration and compost blanket. One of the purposes of this operational change would be to collect the odorous emissions from the composting materials and treat the emissions to reduce off-site impacts. If implemented, the ASP system would also be operated under BMPs established for that particular type of technology. The City also has other options under the operating agreement related to odor management and control and can direct NRWS to implement them if the need arises.

**Appendix 1** -- *Results of Odor Analysis and Preliminary Odor Contingency Plan for Napa Materials Recovery and Composting Facility*, Prepared by CalRecovery, Inc., February 2005

**Appendix 2** -- *Odor Management System Plan for Napa Recycling & Waste Services*, prepared by Summit Engineering, Inc., February 2006



# ***Transfer Processing Report***

*for the*

***City of Napa Material Diversion Facility  
820 Levitin Way  
Napa, California 94558***

Submitted to:

*County of Napa Planning, Building, & Environmental Services*

*Local Enforcement Agency*

Napa, California

Prepared by:



Sacramento, California

November 21, 2014

Revised July 2016



Transfer/Processing Report  
*City of Napa Material Diversion Facility*  
*820 Levitin Way, Napa, California 94558*

## **TRANSFER/PROCESSING REPORT**

**City of Napa Material Diversion Facility**  
**Napa, California**

The material and data in this report were prepared under the supervision and direction of the undersigned.

Edgar & Associates, Inc.

A handwritten signature in black ink, appearing to read "Evan W.R. Edgar". The signature is stylized with a large "E" and "W".

---

Evan W.R. Edgar  
Registered Civil Engineer 42053

## **PREFACE**

---

This Transfer/Processing Report (TPR) is the operations plan and permitting document to revise the existing Full Solid Waste Facilities Permit (SWFP)(SWIS No. 28-AA-0030) for the Material Recovery Facility (MRF) at the City of Napa (City) Material Diversion Facility (MDF). A TPR is required by the California Code of Regulations (CCR), Title 14, Section 18221.6, to describe the operations of a facility in order to obtain a Full Solid Waste Facilities Permit (SWFP); it describes in detail the operations of the MRF and identifies operational changes requiring the revision of the SWFP. The purpose of the TPR is to identify design features and operation plans that mitigate or control potentially adverse environmental impacts while providing information demonstrating on how the Facility complies with state minimum standards.

The operator, Napa Recycling & Waste Services, LLC (NRWS) seeks to expand the existing permitted operations at the MDF, as allowed by the Solid Waste Facility Permits, by making operational changes that would be significant under regulations of the California Department of Resources, Recycling, and Recovery (CalRecycle):

In order to implement the proposed facility expansion, a Use Permit (PL12-0022) was approved by the City of Napa for the operational changes and new technologies at Napa MDF for the “Napa Renewable Resources Project” (MDF). However, many of the key aspects of the facility will not change:

- The property boundary and the permitted area will remain the same.
- The permitted maximum daily tonnage amount will not increase.
- The permitted maximum daily traffic amount will not increase.

The following items will change:

- Food waste and co-collected food waste will be received at the MDF.
- The hours of operations will change for the compost facility as the newer compost technologies 24 hour operations to operate the blowers in the aerated static pile system and the mechanics of the anaerobic digestion system.
- Storage will be changed to accommodate the biomass gasification plant.
- The operational changes and technologies will be phased in over time in a modular and distinct fashion allowing the MDF to develop, while keeping the current operations in place until the newer technology is added and becomes operational.
- The permitted maximum storage will increase from 60,000 cubic yards to 90,000 CYD of compost feedstock, composting material, and final product, where the food waste materials will occur under covered conditions.
- Clarify existing product depackaging – food waste processing operations
- Continue to accept winery wastes

Operational changes within the MRF are expected to be minimal. This TPR has been developed in order to conform to CalRecycle regulatory changes that have been implemented since the last Report of Station Information was provided to the LEA in 2001.

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The Napa MDF historically had three Solid Waste Facility Permits (SWFP) activities, all for the same location. The recent SWFP combined these three permits into a single SWFP, encompassing the activities occurring at the overall facility; this is shown in Table 1 with the tons per year (TPY) and tons per day (TPD) on a typical day:

**Table 1 – Permit Limits for Current Operations**

| Previous Facility Permits                  | Combined Solid Waste Facility Permit                                                                       | Proposed Napa Renewable Resources Project (operating areas)                                                                                                                                                                                                      |
|--------------------------------------------|------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Material Recovery Facility                 | One Solid Waste Facility Permit to combine the three previous permits for 760 TPD and 386 vehicles per day | <ul style="list-style-type: none"> <li>• 154 TPD typ. recyclables (40,000 TPY)</li> <li>• 115 TPD typ. C&amp;D (30,000 TPY)</li> </ul> <p style="text-align: right;"><i>269 TPD avg. total</i><br/><i>360 TPD peak total</i></p>                                 |
| Compost Facility                           |                                                                                                            |                                                                                                                                                                                                                                                                  |
| Green Waste Chipping and Grinding Facility |                                                                                                            | <ul style="list-style-type: none"> <li>• 115 TPD typ. AD (25,000 TPY)</li> <li>• 241 TPD typ. CASP (66,640 TPY)</li> <li>• 44 TPD typ. Biomass (11,500 TPY)</li> </ul> <p style="text-align: right;"><i>400 TPD avg. total</i><br/><i>500 TPD peak total</i></p> |

The combined permit will allow the operator to accommodate seasonal fluctuations in the flows of materials into the facility which tend to peak at different periods of time throughout the year.

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**FACILITY OVERVIEW**

---

## **Introduction**

This TPR describes the design and operation of Napa Recycling & Waste Services, LLC's (NRWS) Material Recovery Facility.

The MDF receives and processes all residential and commercial source-separated recyclables, commercial food waste, and yard waste generated within the City and collected by the City's authorized operator Napa Recycling and Waste Services. The MDF also receives and processes materials delivered by haulers servicing surrounding jurisdictions (such as unincorporated Napa County) and by private (self-haul) customers.

The Napa MDF is a fully permitted Solid Waste Facility (in July 1996, SWFP (#28-AA-0030) was issued) that is inspected monthly by the County. Napa MDF was developed in the early nineties to answer the call of the California Integrated Waste Management Act of 1989 (AB 939) to divert 50% of the waste stream from disposal by 2000, which has been surpassed. The city of Napa has been highly successful since purchasing the MDF in 2004 which includes the Material Recovery Facility (MRF) and a composting facility.

The existing MDF site comprises approximately 18.6 acres, of which approximately 12 acres are used for organic material management operations such as composting and chip and grind; 2.2 acres for soil stockpiling; 1.2 acres for concrete recycling; 1.2 acres for material recovery facility (MRF); and about 2.0 acres for support operations. The MRF, composting facility – including green waste chipping and grinding operations and food material composting are permitted to accept up to a combined 760 tons per day of recyclables, food material, yard waste and wood waste.

The MDF has been in operation since the early 1990's, processing a wide range of recyclable and/or compostable materials. In 2004, the City purchased the MDF and in 2005, Northern Recycling & Waste Services took over as the City's contracted operator.

## **A. Facility Information**

Facility Name: Napa Material Diversion Facility

Facility Location: 820 Levitin Way  
American Canyon, CA 94503

Mailing Address: PO Box 239  
Napa, CA 94559

APNs: 57-110-49, 52, 65, 66, 67, 68



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Land Owner: City of Napa  
1600 First Street – P.O. Box 660  
Napa, CA 94559

Operator: Mr. Greg Kelley  
Napa Recycling & Waste Services, LLC  
P.O. Box 239  
Napa, CA 94559  
Phone (707) 603-1181

|           |                                                                                                             |                                                                                                                                        |
|-----------|-------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------|
| Contacts: | Mr. Greg Kelley<br>Operator<br>NRWS<br>P.O. Box 239<br>Napa, CA 94559<br>Phone (707) 603-1181               | Evan Edgar<br>(Consultant)<br>Edgar & Associates, Inc.<br>1822 21 <sup>st</sup> Street<br>Sacramento, CA 95811<br>Phone (916) 739-1200 |
|           | Kevin Miller<br>Owner (City of Napa)<br>P.O. Box 660<br>Napa, Ca. 94559<br>Phone (707) 257 – 9200 ext. 7291 |                                                                                                                                        |

The Levitin Way facility opened, handling only recyclables, in February, 1994. With a use permit from the County of Napa, the Material Recovery Facility has operated as an intermediate processing facility for source-separated, commingled recyclables. NRWS has increased the recovery of glass, metal, paper (white paper, newspaper & cardboard) plastic, wood and yard waste at the MDF over the last 20 years.

The MDF is identified in the City of Napa's Non Disposal Facility Element (NDFE), which has been amended to recognize operational changes as they have occurred over time.

#### Land Use Entitlement History

The City and the operator, Napa Recycling & Waste Services (NRWS) maintain many local and state permits for the MDF site: The County of Napa approved Use Permit U-90-2, and certified a Negative Declaration in 1991, which has been modified several times over the years; February 9, 1994 (93248-MOD), September 16, 1994 (93530-MOD), April 16, 1995 (94129-MOD), March 20, 1996 (95172-MOD), and September 5, 1997 (96468-MOD), and with each Use Permit Modification, a Negative Declaration was certified. Pursuant to Section 15150 of the California Environmental Quality Act, the Negative Declarations that were prepared for each of the existing modification of the facility are incorporated into this Initial Study by reference and listed below:

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- Negative Declaration for Use Permit #U-90-29: Establishment of recyclable material transfer facility, yard waste recycling facility, administrative offices, and truck storage administrative maintenance. (2/20/91)
- Negative Declaration for Solid Waste Facility Permit #SWF-009 (10/2/92) SCH #92033087
- Negative Declaration for Use Permit Modification #93530-MOD: Installation of surface runoff retention and filtration ponds (9/16/94) SCH #94073045
- Negative Declaration for Use Permit Modification #94129-MOD. (8/9/95) SCH #95023019
- Negative Declaration for Use Permit Modification #95172-MOD (3/28/96)
- Negative Declaration for Use Permit 12-0022 by the City of Napa(10/31/14)
- CEQA Technical Addendum by the City of Napa (7/2/14)
- CEQA Technical Addendum by the City of Napa (5/24/16)

Solid Waste Facility Permit History

- Solid Waste Facility Permit
  - Originally issued, July 1996
  - Five year permit review, July 2001– no changes
  - Permit transfer of owner/operator – October 2005
  - Five year permit review, May 2006 – no changes
  - Five year permit review, May 2011 – no changes

Each operator of a Large Volume Transfer/Processing Facility that is required to obtain a Full Solid Waste Facility Permit, as set forth in Title 27, Division 2, Subdivision 1, Chapter 4, Subchapter 3, Articles 2.0 - 3.2, (commencing with section 21570) shall, at the time of application, file a Transfer/Processing Report (TPR) with the Local Enforcement Agency as required in section 17403.9 of Title 14. The TPR format allows CalRecycle and the Local Enforcement Agency (LEA) to clearly review all aspects of the California Code of Regulations - Title 14 are fully addressed in conjunction with the issuance of a Solid Waste Facility Permit and its corresponding terms and conditions.

The Transfer/Processing Report contains the following and is noted in the margin of the Table of Contents:

- A.** Name(s) of the operator, owner, and the company they represent, if applicable;
- B.** Facility specifications or plans, to include: a site location map, a site map, and identification of adjacent land uses and distances to residences or structures that are nearby and are within 1000 feet of the facility property line;
- C.** Schematic drawing of the building and other structures showing layout and general dimensions of the operations area, including, but not limited to, unloading, storage, loading, and parking areas;

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- D.** Descriptive statement of the manner in which activities are to be conducted at the facility;
- E.** Days and hours the facility is to operate. If the hours of waste receipt differ from the hours of material processing, each set of hours may be stated. For facilities with continuous operations, indicate the start of the operating day for purpose of calculating amount of waste received per operating day. The operator may also indicate whether or not, and when, other activities, such as routine maintenance will take place, if those activities will occur at times other than those indicated above;
- F.** Total acreage contained within the operating area;
- G.** Facility design capacity including the assumptions, methods, and calculations performed to determine the total capacity;
- H.** Information showing the types and the daily quantities of solid waste to be received. If tonnage was not scaled and from records of cubic yards, include the conversion factor used;
- I.** Description of the methods used by the facility to comply with each state minimum standard contained in sections 17406.1 through 17419.2;
- J.** Anticipated volume of quench or process water, and the planned method of treatment, and disposal of any wastewater;
- K.** Description of provisions to handle unusual peak loading;
- L.** Description of transfer, recovery and processing equipment, including classification, capacity and the number of units;
- M.** Planned method for final disposal of the solid waste;
- N.** Planned method for the storage and removal of salvaged material;
- O.** Resume of management organization which will operate the facility;
- P.** List of permits already obtained, and the date obtained or last revised.

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**OPERATOR AND SITE PLAN**

---

**A. Operator**

**18221.6(a) name(s) of the operator, owner, and the company they represent, if applicable**

The MRF is owned by the City of Napa and operated by NRWS. The following personnel are involved with supervising the facility operations:

Operator

Greg Kelley, General Manager

Solid Waste Experience

20 years

Land Owner

City of Napa  
Contact: Kevin Miller  
P.O. Box 660  
Napa, Ca. 94559

**B. Site Location**

**18221.6b) facility specifications or plans, to include: a site location map, a site map, and identification of adjacent land uses and distances to residences or structures that are nearby and are within 1000 feet of the facility property line**

Site Location

The Material Recovery Facility is located at 820 Levitin Way, a cul-de-sac on the south side of Tower Road in the southern unincorporated portion of Napa County, as shown on the Location Map, Sheet 1. The facility is located on APN 057-110-058. Sheet 2 shows the Site Plan for the composting facility, the Material Recovery Facility, anaerobic digestion facility, biomass gasification facility, and the office and public parking.

The route of delivery to the site was established in use permit modification #94129. Sheet 1 shows the location and access roads; these roads were completed to serve the South Napa Waste Management Authority (Devlin Road Transfer Station) and Napa Material Diversion Facility. From Highway 29 vehicles turn onto South Kelly Road. The Devlin Road Transfer Station is located at the end of South Kelly Road. Vehicles bound for the MDF then turn right on Devlin Road and left on Tower Road

to Levitin Way. The MDF is the only business served on Levitin Way, which is a short cul-de-sac, only about 0.9 miles from Highway 29.

Adjacent land uses are identified on Sheet 6, 1000' Radius Map, in the Site Maps section. The site is surrounded by industrially-zoned property, which consists mainly of industrial services and storage uses, as well as some warehouse/distribution use. the nearest residence is approximately 2,340 feet to the east of the site, across Highway 29 on Café Court.

## **C. Site Plan Description**

### **18221.6c) schematic drawing of the building and other structures showing layout and general dimensions of the operations area, including, but not limited to, unloading, storage, loading, and parking areas**

The site on which the Material Diversion Facility is located consists of 18.6 acres (see Sheet 2: Site Plan). The scale house is directly inside the gate. The sorting, compaction and baling equipment are located in the recycling portion of the building with a work area of 24,000 square feet. Directly adjacent to this area is the lunch room, restrooms and truck service area. The entire site is concrete surfacing, mitigating the preponderance of potential storm water impacts.

The General Plan for this area is Industrial. The site is zoned General Industrial: Airport Compatibility. It falls within the Airport Industrial Area Specific Plan with the Napa County Airport and Southern Pacific Railroad tracks to the west, heavy industrial uses to the north and east, and the Devlin Road Transfer Station to the south. Historically, the site was used for cattle grazing and growing hay.

The service area for the facility is defined in the County Solid Waste Management Plan. It is bounded on the north by a line 100 feet south of Trubody Lane, and by the Napa County line in the east, west and south.

The facility is served by the City of American Canyon's Department of Public Works for both water and wastewater.

### **Current Site Maps**

The Site Plans containing the schematic drawings of buildings and other structures showing the layout and general dimensions of the operations areas, including the unloading, storage and loading areas are provided in the "Sheets" section. The site features and structures are shown in Sheet 2 –Site Plan. Additional operational areas of the site are depicted in Sheet 3 through Sheet 5 which show unloading, storage, and loading areas specific to each of the operations. All drawings are scaled according to notations provided on each.

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The majority of activities at the facility take place indoors including the tipping, processing of recyclables and transfer and non-recyclable residuals for landfilling at the MRF building, the receipt, processing, and blending of food waste, and the screening of finished compost products, respectively, in separate buildings on the western portion of the site. Vehicle and equipment maintenance takes place in a separate building, while another houses the administrative offices. Outdoor activities include processing and composting of yard waste, blended food material, and wood waste. Additionally, gypsum and Construction, Demolition and Inert Debris (CDI) debris is received and processed at the site.

Driveways, parking and maneuvering areas are surfaced with concrete or asphalt. Access to the site is via Levitin Way to the entrance at the northern end of the site. Commercial and self-haul vehicles proceed to the gatehouse and are weighed at the scale, as appropriate, and where loads are screened for hazardous materials and assessment of tipping fees; the vehicles are then directed to the appropriate tipping areas.

Parking for employees and visitors is located adjacent to the administration and maintenance building at the eastern side of the site. Truck parking is located adjacent to the MRF building, as shown on the site plan.

Material Recovery Facility Building:

The 24,000 square foot MRF building is located on the eastern portion of the site, as shown on the site plan.

The MRF equipment inside the MRF Building will be upgraded over time as technology advances.

Administration and Maintenance Buildings

The administrative offices and maintenance occupy other buildings in the eastern portion of the site. The buildings contain offices and work areas for management personnel and administrative employees, restrooms, conference rooms, storage and equipment rooms, in addition to mechanical equipment and tools for use in the maintenance and repair of company vehicles and waste handling equipment.

Outdoor Facility Operations

In conjunction with the development of the MDF, several new aspects of facility operations are being added to the existing facility which are fully described in Section II – Report of Composting Site Information, and Section III – Transfer/Processing Report for the Anaerobic digestion Facility.

As an overview, commercial loads of food waste containing both pre-consumer and post-consumer food scraps from food processors, restaurants, grocery stores or other food service operations, may also be accepted. Source-separated food waste from commercial sources may be mixed with green waste to achieve an optimum ratio of carbon to nitrogen. Agricultural sources, such as grape pomace, may also

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be accepted. Materials containing food waste will be composted using a covered aerated static pile system.

#### Green and Wood Waste Receiving and Storage

A large portion of the green waste and wood waste would continue to be received and stockpiled outdoors on existing concrete pads areas in the southwestern portion of the MDF. Wood waste can either be used as a carbon source in feedstock mixtures, or used as biomass fuel. Materials that are not compatible with the composting process, or which might damage process equipment (e.g., concrete and asphalt, treated wood waste), would be manually removed and handled as residue.

#### Wood and Green Waste Pre-processing System

The MDF includes a wood and green waste pre-processing system. This system has been developed to fulfill the dual-tasks of preparing green waste and wood waste for composting and for biomass markets. Prior to being placed in the aerated static pile compost system, feedstocks must undergo size reduction, watering and mixing to optimize biological performance. Size reduction of materials destined for biomass markets is also required to meet maximum particle size specifications in purchase agreements. In both cases, contaminants such as metals, plastics and treated wood must also be removed from feedstocks. The pre-processing system consists of three steps: pre-screening, size reduction, and size classification. Each step is done using a separate piece of equipment.

- Pre-screening would be done using a disc screen, the intent of which is to provide an initial separation of materials into fine and coarse fractions. The fine fraction would be suitable for composting without further processing.
- Oversized materials from the disc screen would be appropriately size-reduced and then directed to a trommel screen to divide the materials into fine and coarse fractions. The fine fraction would proceed to composting and coarse particles would be directed to a biomass stockpile and subsequently marketed to biomass to energy facilities in the region or used in the on-site biomass gasification unit
- Equipment included in the pre-processing line would be equipped with overhead and head pulley magnets to remove ferrous metals such as nails, screws, and wire.

#### Food Waste Processing

Food waste will be blended by bucket loader with select loads of green waste on the floor of the receiving and mixing building, in various blend as the optimal ratio is determined depending on feedstock specifications per operations. Feedstock blends can be accommodated within the range of 66/34 food waste to green waste for anaerobic digestion feedstock, or 40/60 food waste to green waste for covered aerated static pile feedstock, based upon feedstock availability and seasons. Efforts will be made to train the generator on source-separating food waste from other waste materials with outreach, bilingual pamphlets, feedback on contamination

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levels, and continual updated training events. The blended material is then carried by loader to the anaerobic digestion system building enclosure area where it will be loaded into a vessel.

### Product Depackaging Operations

Product depackaging operations and winery waste handling have been conducted at the Napa Materials Diversion facility for over a decade. These depackaging operations are capable of recovering 100% of the processed materials from landfilling. The continued operations include the following activity:

- Receiving and storage of packaged food products.
- Depackaging/processing of source-separated deliveries of unsaleable food products using portable equipment.
- Recovery and management of recyclable packaging and food material fractions

### *Receiving and Storage*

Packaged food materials that have been determined to be unsaleable are received from food processors, wholesalers, retailers, wineries, or other segments of the food and beverage supply chain. Unsaleable merchandise may be damaged or distressed, but is typically past its recommended consumable shelf life. Products typically arrive in palletized case lots which may be single or multiple pallets, and constitute dozens or thousands of cases in size. Palletized products are stored in the Material Storage Area to the south and west of the Material Recovery Facility (MRF) building awaiting processing.

### *Depackaging Technology*

The current mobile depackaging equipment provides robust separation of organic waste materials from non-organic packaging. The equipment uses a hammer mill to remove non-organic contaminants and reduce particle sizes to create a food waste slurry (or liquid) which can be used for feedstock in an anaerobic digester (AD) or composting facility, reducing greenhouse gas emissions from landfilling of these materials.

The equipment may be replaced with a DODA Bioseparator (or similar depackaging equipment) which provides robust separation of organic waste materials from non-organics at up to 20 tons per hour. The stainless steel equipment





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uses a screw press in combination with a hammer mill to remove non-organic contaminants and reduce particle sizes to create a food waste pulp (or pomace or sludge) which can be used for feedstock at the on-site AD Facility, at a local waste water treatment plant, or at a composting facility. The processed food waste pulp will be stored in a water-tight bin adjacent to the DODA. The bin may be up to 20 yards and hold 10 tons of food processing waste. With a design capacity of 20 tons per hour, the bin could be loaded within 30 minutes and hauled to the AD Facility.

*Food Product Depackaging/Processing Overview*

Because the equipment is mobile, food product depackaging operations may occur at any location with proper drainage and liquid retention capabilities. Currently, this activity occurs onsite within an existing truck wash bay or at a loading dock; in both cases, liquids are contained (due to paving and grading) and drain to an underground sump.

Currently, liquid food materials and winery wastes – which are collected by pumping into a stand-alone or truck-mounted tank or sealed container – are transported to the composting operations onsite and sprayed onto active windrows, prior to their pathogen reduction phase. There are many diverse potential markets for organic waste commodities may incentivize the operator to employ a variety of techniques in the blending, containerization, and transportation of the end slurry/liquid product should the volume exceed available onsite use. This blending and materials management will occur within the Organics Receiving and Processing Building on the western portion of the site.

The food product pallets are handled using a forklift, delivered to the operations area, and individual cardboard cases or other containers are manually opened and tipped directly onto the infeed conveyor to the depackaging equipment hopper. The empty cardboard cases are collected in a debris box and transported to the MRF for baling.

*Processed Organic Commodities*

Waste water treatment facilities, composting facilities, high solids anaerobic digesters, and low solids anaerobic digesters are increasingly seeking processed food materials as feedstocks to utilize in the production of soil amendments or biomethane that can be used to generate electricity or in the creation of biofuels. The increasing need to generate green energy will continue to expand markets for the processed organic feedstock that this facility will produce.

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Biomass Conversion Facility

The Biomass Conversion Facility proposes to use 40 TPD of processed clean wood waste to generate 1 mega-watt of energy for on-site use.

The current operations have clean wood waste recovered from the organics processing operations being ground into wood chips. The wood waste is stockpiled on a pad for a maximum period of 30 days. Chipping and grinding generally occurs within a few days. The wood chips are loaded from the stockpile into transfer trailers where the material is transported to an off-site biomass energy facility. There is no on-site biomass energy facility.

The proposed biomass conversion facility would include the following activity and as provided below:

- Construct and operate biomass gasification unit.
- Allow 24-hour operation and maintenance of the biomass gasification unit
- Utilize 40 TPD of clean wood chips processed on-site as the fuel source.
- Generate 1 mega-watt of renewable energy to power on-site operations

## **D. Site Operations**

### **18221.6(d) descriptive statement of the manner in which activities are to be conducted at the facility**

#### **Overall Operations Plan**

The NRWS MRF accepts nonhazardous solid waste from the City of Napa and the southern Napa County area. Recyclable materials are extracted from the waste stream, and the residual waste is transported to a permitted landfill for disposal.

The majority of activities at the facility take place indoors at the MRF building (of approximately 24,000 square feet), including the tipping, sorting, and processing of recyclables and transfer of non-recyclable residuals storage for secondary markets or landfilling, vehicle and equipment maintenance takes place in a separate building. Another building also houses the administrative offices. Outdoor activities include processing and composting of yard waste, sorting of construction and demolition/inert debris, and processing of white goods for Freon and mercury switch removal.

Driveways, parking and maneuvering areas are surfaced with concrete or asphalt. Access to the site is via Levitin Way to the entrance driveway at the northern end of the site. Commercial and self-haul vehicles proceed to the gatehouse and are weighed at the scale, as appropriate, and where loads are screened for hazardous materials and assessment of tipping fees; the vehicles are then directed to the appropriate tipping areas. The gatehouse is located approximately 500 feet along the access road, Levitin Way, from the Tower Road entrance, allowing for substantial queuing of vehicles, negating the need for any traffic to back up on to Tower Road.

Parking for employees and visitors is located adjacent to the administration and maintenance buildings at the eastern portion of the site. Truck parking is located in the adjacent to the MRF building.

Trucks with full loads enter the site from Levitin Way and proceed to the truck scale(s) alongside the scale house. After being weighed, trucks hauling commercial and residential recyclables are directed to the Material Recovery Facility tipping area where a spotter backs them in to dump their materials.

Trucks carrying green material, construction and demolition wastes, and inert debris are weighed at the truck scale(s) shown on the site plan and are directed, via signs and/or spotters, when necessary, to the appropriate tipping locations to dump their wastes.

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Sorting and Transfer Operations

Sorting takes place within the MRF building. Upon arrival at the facility, the general public is directed to the public tipping area, and commercial vehicles are directed to the commercial tipping area.

Recyclables are processed on a mechanical sort-line utilizing manual sorting and mechanical means to separate plastics, paper and cardboard, metals, glass and other recoverable materials from the waste stream. Glass is stored in bunkers and transferred off-site to markets. Other separated recyclables, such as paper, plastics, and metals are then baled or containerized for shipment to their various markets, with non-marketable residuals consolidated with other refuse for transfer to landfills for disposal. Residuals are stored up for up to 48 hours before being transferred off-site.

Material Recovery Facility:

Recycling occurs within the fully enclosed Material Recovery Facility. Material brought to the site will consist of residential source-separated recyclables with contamination that may or may not have less than 10% contamination with residuals or other physical contamination that cannot be recycled. No household hazardous waste or other hazardous waste will be knowingly accepted at the site.

The project is projected to be capable of recovering at least 80% of all source-separated residential material that is processed at the facility. The material will be sorted and separated by type. Some material will be condensed or baled. Other material will be temporary stored and eventually transported off-site to markets. The residual material that has no secondary value will be conveyed to the floor of the transfer station and transferred for disposal to a permitted solid waste disposal facility within the region.

The Material Recovery Facility processes recyclables from commercial sources. Select commingled recyclables deliveries containing loads of recyclable material that may vary from 50% to 90% recyclable will be dumped in Material Recovery Facility. Material that will be recycled includes aluminum cans, ferrous metals, plastic, newspaper and magazines, plastic, paper, cardboard and glass. The separated material will then be baled and delivered to wholesalers. Material will be added or deleted from the recyclable stream as the market conditions dictate.

Wheel loaders operating in the Material Recovery Facility push the unprocessed recyclables into the feed hopper of the sorting system. From the feed hopper, material will be conveyed to the sorting line. Newspaper, cardboard, glass, aluminum, ferrous, and plastic containers will be sorted and dropped into bays under the sorting conveyor. Materials to be baled will be pushed onto a conveyor belt feeding into the baler or be pushed directly to the baler as appropriate. Glass materials will be dropped into bins for transport to the recycle market. Full bins will

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be carried by forklift outside of the building for temporary covered storage along the west side of the MRF building.

Residual wastes that cannot be recycled will stay on the sorting line where another conveyor belt will drop the residuals on the Transfer Station floor for transfer and disposal, or further secondary processing at a permitted facility.

The primary Material Recovery Facility stationary equipment will consist of:

- In-ground and elevated conveyor belts
- Screens
- Elevated Sort Line
- Baler

#### Solar Panel

The roof top of the Building would support solar panels with the capability to generate up to 800 kilo-watt hour of renewable energy. Current regulations allow the installation of solar panels administratively. The project is explicitly stated here to demonstrate the transformation of Facility into using carbon neutral energy sources.

#### **Material Storage**

There is sufficient storage area for recovered and recycled material on-site. Baled and containerized storage of recovered commodities occurs on paved surfaces outside of the southern and southeastern perimeter of the MRF building. Upon installation of the Biomass Gasification Facility, storage areas will need to be reassessed and relocated.

#### **Waste and Material Flow**

Green Material or Green Waste tipped at the composting operations area from a collection vehicle or self-haul vehicle for further processing as compost feedstock, or to be blended with food waste following processing for use as an anaerobic digestion or composting feedstock. Following processing the material is composted and sold or delivered to an offsite facility as feedstock.

Food material is source-separated food material collected from commercial establishments which has been produced as a result of food production or food preparation operations that meets the definition found in Title 14, Section 17852(a)(20). Food material is delivered directly to the organics receiving building for processing and blending with green waste, or co-collected with green waste, for delivery to a permitted anaerobic digestion or composting facility, including onsite or offsite operations.

Co-Collected Organics are residentially- and commercially-generated food material co-collected with green material delivered directly to the organics receiving building for processing and blending with green waste for delivery to a permitted anaerobic digestion or composting facility, including onsite operations.

Commingled Recyclables are unloaded in the tipping area at the MRF building for further processing and recovery of component commodities.

## **E. Hours of Operations**

**18221.6(e) Days and hours the facility is to operate. If the hours of waste receipt differ from the hours of material processing, each set of hours may be stated. For facilities with continuous operations, indicate the start of the operating day for purpose of calculating amount of waste received per operating day. The operator may also indicate whether or not, and when, other activities, such as routine maintenance will take place, if those activities will occur at times other than those indicated above**

Green materials, food materials, CDI materials, and recyclables are hauled by separate company trucks and received between the hours of 5:00 a.m. and 5:00 p.m. Public, self-haul loads are received between 8:00 a.m. and 5:00 p.m. Mixed municipal waste is processed between the hours of 6:00 a.m. and 6:00 p.m. Commingled and Source-Separated recyclables processing may occur 24 hours per day, along with other indoor operations and maintenance activities.

All loads, mixed waste and recyclables will be sorted as they are brought in. If a mixed waste load and a 100% recyclables load come in at the same time, the mixed waste load will be sorted first. The hours for sorting mixed waste were chosen in consultation with the LEA and with consideration for agreements between the operator and the Teamsters Union.

The facility is closed Easter, Christmas, Thanksgiving, and New Year's Day.

## **F. Site Acreage**

**18221.6(f) total acreage contained within the operating area**

The site on which the Material Diversion Facility is located consists of 18.6 acres.

## **G. Facility Design Capacity**

### **18221.6(g) facility design capacity including the assumptions, methods, and calculations performed to determine the total capacity**

#### **Design Calculations**

The assumptions, methods, and calculations for each specific operation are provided below.

At full speed with their current equipment, NRWS sorts an average of 30 tons per hour with 100% recyclables passing over the conveyor belts. This means every single item must be pulled from the belts.

Estimates on the maximum tonnage that can be sorted depend on the weight of the materials the number of employees sorting, and the speed of the conveyor belt, which is adjustable. With more employees sorting, the speed can be increased. If every item on the belt must be sorted, as with 100% recyclables, the speed must be slower than if 30% to 50% of the items are removed, as in mixed waste sorting. Maximum tonnage capacity would be reached more quickly with commingled glass and metal than with commingled plastics.

For example, to estimate the sorting capacity for mixed waste, we estimate that 30% of what passes over the conveyor belt will be pulled off. Currently, when a mixed load of paper comes in, it includes newspaper, magazines, cardboard, phone books and paper milk cartons. All of the items are pulled off the conveyor belt. With 10 sorters, they can process mixed paper at 20 tons per hour. If 30% instead of 100% is removed from the belt, the same 10 employees should be able to sort 66 tons per hour (20 divided by 30 = 66).

NRWS has a maximum tonnage limit of 360 tons per day for sorting both commingled, source-separated recyclables and mixed waste. We believe this is a realistic limit since it is based on sorting 30 tons per hour over a 12-hour period. The use permit allows 24-hour operation, limiting only the hours open to the public. Mixed waste can be sorted at 2 to 3 times the speed of 100% recyclables.

According to the equipment provider, Ptarmigan Machinery Company, the 60" wide sorting conveyor was designed to handle at maximum speed up to 75 tons per hour of material with a bulk density of 150 pounds per cubic foot. This is a variable speed system that can efficiently run up to 250 feet per minute with 16 sorting stations. The permitted tonnage is far below the maximum design capacity.

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Average daily throughput

The current average daily throughput is 75 tons of 100% recyclables from the curbside recycling program and 26 tons per day of select load sorting. Estimating 200 tons per day throughput for mixed waste sorting and an average daily recovery rate of an additional 60 tons per day of recyclables, NRWS estimates the following daily tonnage or recovered recyclables from a select load recovery program:

|                     |           |
|---------------------|-----------|
| Steel/Metal Wood    | 14.4 tons |
| Sheetrock           | 12.6 tons |
| Concrete/Asphalt    | 6.6 tons  |
| Glass/Porcelain     | 5.4 tons  |
| Cardboard/Chipboard | 12.0 tons |
| Other*              | 9.0 tons  |

\* Other= office paper, newspaper, magazines, tin, aluminum, and plastics.

Unusual Peak Loading

Unusual peak loadings are most likely to occur after a holiday or unusual local event. Daily peak conditions increase tonnage by 10% at the most, according to the operator's past experience. Depending upon the amount of peak loading, NRWS can call in part time workers as needed. The facility's use permit is for a three shift, 24 hour operation. At the present time, all sorting, compaction and baling of recyclables is easily handled in one shift. In general, NRWS employees are trained for more than one function, so that one person may sort for a couple of hours, handle the scales or drive a truck for the remainder of their shift.

**Types and Numbers of Vehicles**

A traffic study was completed in the processing of the use permit approval for this site, #U-90-29 in 1991. Traffic was again examined when the Devlin Road Transfer Station (DRTS) was approved and built.

With the development of these facilities, the intersection of Highway 29 and Kelly Road was signalized. South Kelly Road, a 0.2 mile stretch, which leads from the Highway to the transfer station, is used only by the Transfer Station and NRWS. Devlin Road was extended (0.5 miles) between Kelly Road and Tower Road, a stretch of almost exclusively by NRWS trucks and customers. From Devlin it is less than 0.1 mile to Levitin Way, the cul-de-sac leading into the NRWS facility. These roads are all used almost exclusively by NRWS and Transfer Station traffic; they were built to accommodate transportation of garbage and recyclables (Sheet 4: Access Map).

At this time NRWS owns 50 trucks; 21 pickup mixed municipal waste, 6 pickup commercial recycling bins, 9 pickup curbside recycling, 8 pickup yard waste and 6 are used as "spares" or emergency back-up equipment. These are average daily



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counts. Currently, only the 15 trucks picking up recyclables deliver to the Material Recovery Facility.

No additional trucks will be purchased, except to service anticipated normal growth of the community. The select load recovery program does not require additional trucks.

The mixed waste loads would be brought in by trucks that are already coming into the area. The difference is an increase in traffic loading on the half-mile portion of Devlin Road, the 0.1 mile portion of Tower Road to the Levitin Way cul-de-sac, site of NRWS. The trucks already in operation could simply take the load to NRWS, then after sorting, the non-recyclables would immediately be removed over this 0.6 of a mile stretch to the Devlin Road Transfer Station. Also, an individual truck may bring in more than one load, as they do now.

Currently, one to two trucks per day ship out the recyclables. NRWS estimated that the additional sorting would change this to two or three trucks per day. Ideally, NRWS would like to increase the traffic from shipping out recyclables by one truck per day for each year over the next five years.

A current parking lot count over the period of a week showed an average of 78 vehicles in the employee parking lot, which provides parking for a total of 90 employees working in the Administration Building, the Material Recovery Facility, and the Composting Facility. Using this information, NRWS estimates that at the end of 5 years, additional employees will bring in another 12 vehicles. These would not be all in one working shift. Again, this estimate is for all employees, not just the Material Recovery Facility.

## **H. Solid Waste Types and Quantities**

**18221.6(h) Information showing the types and the daily quantities of solid waste to be received. If tonnage was not scaled and from records of cubic yards, include the conversion factor used**

### **Nature and Quantity of Wastes to be Accepted**

The NRWS MDF receives material types that are accepted and prohibited at the facility as listed in Table 2.

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**Table 2 - Materials Accepted and Prohibited**

| <b>Materials Accepted</b>               | <b>Materials Prohibited</b>    |
|-----------------------------------------|--------------------------------|
| Source Separated Recyclables            | Special Wastes                 |
| Commingled Recyclables                  | Hazardous Wastes               |
| Commercial Wastes                       | Ashes                          |
| Self-Haul Wastes                        | Medical Wastes                 |
| Construction and Demolition Wastes      | Asbestos Containing Wastes     |
| Inert Wastes                            | Small Quantity Generator Waste |
| Green Material and Green Waste          | Large Animals                  |
| Food Material and Food Wastes           | Biosolids                      |
| Co-collected green waste and food waste |                                |
| Wood Wastes                             |                                |
| Product Depackaging products            |                                |
| Winery wastes                           |                                |
|                                         |                                |
|                                         |                                |

### **Waste Quantities**

The capacity of the NRWS MDF has been evaluated by CalRecovery and will be adequate to accommodate the permitted 760 tons per day (TPD). The facility will be fully operational Mondays through Sundays. Table 3 shows the estimated daily tonnage of each waste category.

**Table 3 - Typical Daily Throughput**

| <b>Waste Category</b>                                                            | <b>Typical Input</b>    |
|----------------------------------------------------------------------------------|-------------------------|
| Commingled Recyclables                                                           | 260 tons per day        |
| Green Materials, co-collected residential green waste and food waste, food waste | 500 tons per day        |
| <b>Total</b>                                                                     | <b>760 tons per day</b> |

The permitted maximum tonnage for the facility is 760 TPD. The facility's operations may be expanded through use of improved technology for potential future expansions, but at this time the permitted peak capacity will remain 760 TPD.

### Green Waste, Food material, Co-Collected Organics, and Anaerobic Digestate

"Green Waste" means any plant material that is separated at the point of generation that may contain up to 5.0 percent of physical contaminants by weight. Green waste includes, but is not limited to, yard trimmings, untreated wood wastes, natural fiber products, and construction and demolition wood waste. Green waste will be unloaded directly at the composting facility. This definition is provided as a generic, industry-accepted term and is not intended as equivalent to "green material" described in Title 14, Section 17852(a)(21), which may also be utilized in this

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document, is accepted at the facility, and also falls within the definition of green waste.

“Food material” is source-separated food material collected from residences or commercial establishments which has been produced as a result of food production or food preparation operations. Food material is transferred directly into transfer trailers with green waste, or co-collected organics, for delivery to a permitted composting facility.

Co-collected organics is green waste which includes food material from a co-collected residential and commercial green waste and food material program and cannot be unloaded within the bunker within the MRF Processing building, but must be directly unloaded at the Transfer Facility.

The facility may also accept digestate from the anaerobic decomposition of food and green waste.

“digestate” is an unstable product that has been digested, but not composted, and would qualify as a compost feedstock. Digestate derived from food waste and green waste anaerobic digestion process would be classified as a compost feedstock and would qualify as green material for tonnage accounting purposes.

“composted digestate” is a compost product that has been digested and composted but not cured, and would qualify as a compost feedstock. Composted digestate with subsequent compost process on-site derived from a food waste and green waste anaerobic digestion process would be classified as a compost feedstock and would qualify as green material for tonnage accounting purposes.

#### Commingled Recyclables at the Material Recovery Facility

Commingled recyclables include residentially generated and commercial materials including paper, cardboard, old newspaper, cans, bottles, tins and still cans, plastic containers, all types of paper fibers, many types of plastic materials, with varying degrees of residual inert dry materials that are non-recyclable. Commingled recyclables are processed at the Material Recovery Facility prior to transfer of commodities to markets and contaminants to the landfill.

#### Construction, Demolition and Inert Debris

Construction, Demolition and Inert Debris (CDI) materials may be received and processed at the site, including gypsum wallboard or Type A Inert Debris:

Gypsum from dry wall sources is used as an additive during the compost process to assure proper C:N ratio, and is also an amendment added to the compost product for nutrient balance and pH. Only “clean” wallboard scrap from drywall contractors is accepted. It is added during the composting process, in variable quantities, to satisfy the needs of agriculture markets and the creation of custom blends for Napa MDF clients. Anticipated tonnage is 4,000 tons per year.

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Inert (Type A) Debris includes specific clean inert material including but is not limited to concrete (including fiberglass or steel reinforcing bar embedded in the concrete), fully cured asphalt, brick, slag, ceramics, plaster, clay and clay products.

## **COMPLIANCE WITH STATE MINIMUM STANDARDS AND SITE CONTROLS**

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### **I. Methods to Comply with State Minimum Standards**

#### **18221.6(i) description of the methods used by the facility to comply with each state minimum standard contained in sections 17406.1 through 17419.2**

The NRWS MDF will comply with state minimum standards and the conditions of the conditional use permit, and all other state and local laws. The following sections of the TPR are described in order as required by state regulations.

#### **Siting on Landfills**

The Facility is not located on top of a landfill, partially closed landfill, or the intermediate cover of a landfill.

#### **General Design Requirements**

The design of the Facility utilized expert advice, as appropriate, from persons competent in engineering, architecture, landscape design, traffic engineering, air quality control, and design of structures.

Before this facility was built, a geotechnical study was conducted by Balbi & Chang for use by the contractor, C.T. Brayton & Sons. References for all of the experts that participated in the design and building of this facility can be provided upon request.

The Transfer/Processing Report was prepared under supervision of Evan W.R. Edgar, Registered Civil Engineer 42053 in the State of California. Evan W.R. Edgar is the Principal Civil Engineer for Edgar & Associates, Inc. and has over 20 years of professional solid waste experience.

The design of the Facility was based on appropriate data regarding the expected service area, anticipated nature and quantity of wastes to be received, climatological factors, physical settings, adjacent land use (existing and planned), types and number of vehicles anticipated to enter the operation or facility, adequate off-street parking facilities for transfer vehicles, drainage control, the hours of operation and other pertinent information. The facility will be not used by the general public, but the design of the facility took into account the safety features that may be needed to accommodate the general public.

The Facility was designed in such a manner as to minimize the propagation or attraction of flies, rodents or other vectors and the creation of nuisances by reason of solid wastes being handled at the operation. Other factors that were taken into consideration were dust control, noise control, public safety, and other pertinent

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matters related to the protection of public health at the facility. The operational controls and design for each of the issue listed above is provided in detail in the specific sections of the Transfer/Processing Report.

The TPR describes how the facility will comply with applicable local and state requirements regarding odor control measures, personnel health and safety, and sanitary facilities; the operational controls and design for each of the issues listed above is provided in detail in the specific sections of the report.

## **Operating Standards**

### **Burning Waste and Open Burning**

Open burning in any manner is not proposed at the facility. Should burning waste be received at the facility, the wheeled loader or excavator shall push the material away from vehicles and tipping pad to an open area in front of the MRF or MDF Operations Areas. These open areas are paved and burning materials will be isolated where the fire will be controlled by fire extinguishers or spraying of water.

### **Cleaning**

Building floors are cleaned periodically using dry methods, such as sweeping. Wastes are removed from corners, underneath equipment, and other out-of-the-way locations by site personnel to prevent accumulated material from interfering with the safe operation of the facility.

A routine site walk by facility personnel focuses on ensuring that wind-blown litter is picked up and a clean appearance maintained. The site is surrounded by fencing that prevents litter from blowing from the facility.

#### Container Cleaning

The facility uses 10- to 40-cubic-yard roll-off boxes and 3- to 6-cubic-yard bins for temporarily storing recovered loose materials or residuals before they are processed. If necessary, boxes and bins are swept whenever emptied to prevent cross-contaminating the new material with the old.

Conveyor pits, debris boxes, and bins are swept out daily to prevent debris from accumulating.

#### Housekeeping

In addition to the litter cleanup, the facility is inspected on a regular basis by facility personnel to ensure that supplies, parts, containers, and equipment are properly stored or contained so that they do not present a hazard or nuisance.

## **Drainage Control**

Surface water runoff, including all process water, will be directed to an onsite retention basin by use of grading design and drainage ditches, where it will be properly treated, if necessary, to eliminate potential environmental impacts. Water will be pumped from the retention basin for facility use in operations, including fire and dust control.

The retention basin has been designed to retain all surface water runoff resulting from a 100-year, 24-hour storm event. Site personnel will regularly inspect and maintain the drainage ditches and basin.

The operator implements Best Management Practices (BMPs). BMPs included in the site's Storm Water Pollution Prevention Plan (SWPPP) include such management practices as required of the National Pollution Discharge Elimination System (NPDES):

- Storing recycled materials on a slightly sloping paved area (to prevent ponding) with a drainage system. Prevent run-on and runoff by directing drainage around storage areas.
- Sweeping parking areas, storage areas, and processing areas regularly to remove fine particles of material and dust.
- Storing household hazardous materials from the load checking program in an approved household hazardous materials storage compartment and in accordance with federal, state, and local requirements.
- Conducting all vehicle maintenance within the existing maintenance shop at the facility.
- Spill prevention, control, and cleanup program
- Training employees in implementation of BMPs

The amount of free liquids expected to be generated from recyclables processing activities within the fully enclosed MRF building are minimal, even during inclement weather. As a preventative measure, the concrete slab within the MRF building has been slightly concaved to pond any free liquid on the tipping pad where drier solid waste can absorb the liquids as the solid waste is processed for transferring into the loading bays. Should liquids become excessive, chipped green waste from the compost operations can be applied to the tipping pad area to absorb the liquids. The materials would then be transported off-site for disposal at a permitted solid waste facility.

The NRWS MDF is designed in a manner that rain water that falls on the buildings will be treated as storm water and be disposed of in the storm water system. Storm water generated by rainfall in the ramp to the covered loading bays will be managed as storm water as grated trench drains will be put in place to not have this storm water come in contact with any solid waste within the covered loading pit. Drains

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are in place at the end of each ramp to collect the storm water and pump it up to the storm water collection system.

Outdoor operations are managed using best management practices (BMPs), identified in the Storm Water Pollution Prevention Plan (SWPPP) for the site, which are implemented to reduce potential water quality impacts at the site. A copy of the SWPPP is maintained in the administrative offices at the facility and is available for review.

### **Dust Control**

Incoming and outgoing traffic, processing of wood waste, CDI, and yard waste, as well as the unloading of materials the MRF building have the potential to create dust. Traffic areas of the site are paved with concrete or asphalt concrete and thereby reduce the generation of dust. A street sweeper, outfitted with a mister, is utilized for onsite maintenance and removal of dust and dust-generating debris.

Manual watering of the MDF areas is done to control dust. The watering is done using handheld hoses or by a dedicated water tender. As necessary, employees water the green material, wood waste, and CDI material as it is unloaded from collection trucks and reloaded into the transfer trucks. The water spray is mostly absorbed by the material. The material is not sprayed so much as to generate runoff from the debris piles. Mechanized processing equipment used for wood and green waste, or CDI materials grinding, may be fitted with water nozzles to spray materials and reduce dust.

### **Odor Control**

Appendix D of this document includes an Odor Impact Minimization Plan (OIMP) that has been updated to include the new MDF operations, and is being incorporated as part of this Solid Waste Facility Permit revision process.

Odor controls and BMPs have been introduced into the operations documents for both the anaerobic digester and composting operations to augment the existing OIMP, which may be modified, as necessary, to address potential concerns once operations begin.

A misting system may be installed within the food waste receiving building to minimize the potential of odor and dust problems. The misting system will be outfitted with the ability to convey an enzyme based odor neutralizer should odor become a seasonal problem during periods of extreme heat.

### **Hazardous Waste Exclusion Program**

NRWS will not intentionally accept hazardous wastes, including paint, and special wastes.



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Should unauthorized hazardous wastes be discovered during the receiving process, control measures as necessary to protect public health, safety and the environment will be implemented by NRWS, such as elimination or control of dusts, fumes, mists, vapors or gases shall be taken prior to isolation or removal from the operation or facility.

Liquid wastes and sludges will not be accepted or stored at the Facility.

The loadchecking protocol for the NRWS MDF consists of the following:

- The curbside collected recyclables, and organic waste will have already been initially screened by the collection driver before the load arrives at the site. Remaining unacceptable materials may be detected during the unloading and processing process.
- Only non-hazardous wastes are accepted at the site. Typical unacceptable materials include liquid wastes, paint containers, aerosol cans, and friable asbestos, which will be stored inside of the MRF building upon detection.
- Loads are visually checked as they are unloaded. Debris boxes are checked at pickup and during the tipping and sorting process.
- The greatest likelihood of hidden hazardous waste, special wastes, or other prohibited wastes being in the waste stream occurs in debris boxes. The loads are visually screened for unacceptable materials by employees helping with the unloading and/or processing. Unacceptable materials are extracted from the waste and stored in a Title 22-compliant hazardous waste storage locker at the facility, where it is handled by a licensed contractor to manage. NRWS experiences a very low incidence of unacceptable waste being mixed in the debris box material. NRWS provides debris box customers with a written list of acceptable and unacceptable materials.
- Hazardous wastes, special wastes, or other prohibited wastes may be discovered and segregated during the tipping of recyclable materials loads at the facility which employees are properly trained to handle. Hazardous wastes are stored at a household hazardous waste (HHW) storage area and collected within 90 days by a licensed hazardous waste handler. Electronic waste is properly stored and collected by a permitted vendor within 90 days. Treated wood wastes are segregated, containerized, and disposed of at an approved landfill within 90 days of receipt. Appliances requiring the removal of Freon or mercury switches are stored for less than 60 days until collected or delivered to a metals processor. Fluorescent tubes and batteries are containerized for less than 60 days pending transportation to a permitted vendor.

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## **Litter Control**

Litter is removed daily, including from underneath equipment and other out-of-the-way locations, by site personnel to prevent accumulated material from interfering with safe operation. A daily (at minimum) site walk by facility personnel focuses on ensuring that wind-blown litter is picked up and a clean appearance maintained. The site is surrounded by fencing, which prevents litter from blowing from the facility onto public roads or neighboring property. Portable litter fences may be utilized, as needed, dependent upon wind conditions and direction.

The operator will enforce a mandatory tarping policy for vehicles using the facility to cover all loads to mitigate roadside litter and dust generation around the facility.

## **Medical Wastes**

Medical waste will not be accepted, and is strictly prohibited, at the facility. Should medical waste be identified at the facility, the LEA would be notified immediately. Where a solid waste collector is suspect that medical waste may be commingled with loads at the point of generation, the solid waste collector will load check the bins prior to collection at the point of generation, and will not collect the loads where a visual inspection would indicate that medical waste is present. The collector would also notify the LEA of the medical waste identification.

Material Recovery Operations: Should sharps or other medical waste be identified on the recyclables pick line or MDF processing areas, the supervisor will be alerted, a trained employee would remove the waste from the pick line, and the waste would be stored in an approved medical waste storage container, located in several areas of the MRF line and building, for proper pick-up and disposal by a registered medical waste management contractor. Supervisors and employees are trained to properly manage HHW and medical wastes at the facility.

## **Noise Control**

NRWS will control noise to prevent health hazards and to prevent nuisance to neighbors, in accordance with local zoning requirements and the Noise Element of the General Plan.

Mobile equipment will have mufflers to minimize noise impacts. Equipment to be used at the facility will meet OSHA standards for noise and safety. All employees will wear ear protection devices should they be subject to excessive noise levels at the facility.

## **Non-Salvageable Items**

Drugs, cosmetics, foods, beverages, hazardous wastes, poisons, medical wastes, syringes, needles, pesticides and other materials capable of causing public health or safety problems shall not be salvaged during the transfer operations.

Hazardous waste, salvageable or non-salvageable, will not be accepted, and is strictly prohibited at the NRWS facility. NRWS will work with generators to properly manage these hazardous waste items at the point of generation by referring the generator to a registered hazardous waste hauler should a request be made. Where the collector is suspect that hazardous waste may be commingled with loads at the point of generation, the collector will load check the bins prior to collection at the point of generation, and will not collect the loads where a visual inspection would indicate that hazardous waste is present. The collector would then notify the generator of the hazardous waste identification, and if not safely removed from the bin, the LEA would be notified and the load would not be collected.

Material Recovery Operations: Drugs, food, cosmetics, beverages, and other non-hazardous materials may cross the recyclables pick-line or processing area. The employees are notified not to salvage these materials and allow them to become a residual, which will be disposed of at a permitted landfill, which may be stored on-site for up for 48 hours.

Hazardous waste, poison, or medical waste, or other hazardous waste materials that may end up on these pick lines would be managed through the load checking program, and stored on-site in the appropriate medical waste storage containers, located in areas of the MRF line and MDF processing building.

## **Nuisance Control**

Identification and correction of potential nuisance conditions will be in accordance with mitigation monitoring and reporting plan that resulted from the adoption of the CEQA document and the approval of the modification to the Use Permit.

## **Maintenance Program**

The facility will be maintained in a state of good repair. The operator will implement a preventative maintenance program to monitor and promptly repair or correct deteriorated or defective conditions.

A preventive maintenance program will be followed to provide for the timely identification and correction of equipment and facility problems. The preventive maintenance program includes routine cleaning of refuse and litter from the facility. Facility personnel identify areas of the site in need of cleaning or repair while conducting routine site inspections.

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Facility equipment is maintained under a program that focuses on identifying and correcting equipment problems before breakage or failure occurs. This program allows equipment maintenance to be scheduled for weekends or after hours to avoid disruptions to the transfer operations. The inspection, maintenance and repair program will be in accordance with the equipment manufacturers' recommendations. Repair parts will also be stocked in the onsite maintenance facility as needed.

### **Personnel Health and Safety**

The Injury, Illness, and Prevention Program (IIPP) is available for review by local and state inspectors during normal business hours in the administrative offices of the facility.

Risks to the public will be mitigated by the operator having an operations plan in place with adequate training of site personnel. Risks are further minimized or obviated by compliance with solid waste facility permit conditions, CUP project conditions, permit conditions and regulations of other responsible agencies. The operator employs a Safety Manager that conducts regular training and auditing of the safety program to assure compliance with applicable regulations and a safe work environment.

Safety equipment is available and accessible to all site personnel. Workers are equipped with appropriate safety clothing, including high-visibility vests, gloves, hard hats, ear protection, and goggles, where appropriate. Eye washes and first-aid kits are located in the MRF Building and maintenance shop should employees need immediate treatment.

Employees are trained by staff skilled in (1) various aspects of the work and (2) the proper use of facility equipment for which they may be responsible. Potential hazards and safety features are stressed. No employee is permitted to operate equipment until the employee has demonstrated proficiency in its use. Annual review and refresher training ensures continued safe operations of the facility and compliance with regulations.

This facility will not collect or transfer hazardous materials as part of its business operation. Collection drivers, managers, supervisors, and all employees engaged in the sorting or processing of solid waste and recyclables have received training on load checking. The Facility has a Hazardous Materials Business Plan in place. The Plan depicts the inventory of hazardous materials used in the operation (types, quantities and locations), such as vehicle fuel, lubricants, solvents, etc. used for maintenance of collection and processing equipment, and the plan will also include provisions for and any hazardous materials which may be accidentally brought to the facility and kept there pending removal by a licensed hazardous waste hauler. The business plan includes requirements for storage/containment, notification, and

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contingency measures in the event of a spill, fire, or other incident.

### **Protection of Users**

Users of the facility will be restricted to select tipping pad areas for loading and unloading of wastes. There will be spotters at the tipping pad areas to regulate the general public. Restricted areas of potential risk will be off limits to the general public.

Collection and transfer truck drivers will be regulars who are trained and familiar with the site. An 8-foot high, slatted chain link fence with concertina wire and a gate that is locked, when it is not in use, surrounds the facility. The general public will have limited access to the facility's receiving areas for delivery of self-haul loads. Appropriate, visible signage, traffic cones, and instruction by the site attendant will direct vehicles to the appropriate tipping pads.

Pile heights are limited to 25 feet to more readily manage materials, and facilitate safe handling of materials with onsite equipment and minimize risk to public, drivers and onsite personnel. Site personnel will monitor and maintain pile construction to prevent potential hazards due to unstable or poorly constructed piles.

### **Roads**

All on-site roads and driveways have been designed and maintained to minimize the generation of dust and tracking of soil onto adjacent public roads since the roads are paved and swept routinely. The roads shall be kept in safe condition and maintained to allow vehicles utilizing the facility to have reasonable all-weather access to the site.

All site maneuvering and loading/unloading areas are paved, with asphalt or concrete aprons around the drainage facilities.

### **Sanitary Facilities**

NRWS maintains all sanitary and hand-washing facilities in a reasonably clean and adequately supplied condition. Employee restroom facilities and hand washing facilities are available in the MRF building and the administration office.

### **Scavenging and Salvaging**

Operations at the MRF meet the following requirements:

Scavenging: Scavenging by employees or other users of the facility is expressly prohibited. The Operations Manager will ensure that scavenging does not occur.

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Salvaging of Materials: Salvaging of materials will not occur at the facility other than in those material recovery activities described within this TPR.

## **Signs**

Signs showing the schedule of charges, hours of operation and types of materials accepted are posted on the gate and on the outside of the scale house.

## **Loadchecking**

Drivers of each vehicle inspect every load during pick up. This includes curbside recycling and mixed municipal waste, residential and commercial. The purpose is to identify hazardous wastes that may be in the bind and leave them at the pick-up point. During this inspection the drivers also have the opportunity to identify mixed municipal waste loads that include recyclable materials.

For loads brought in by the public, this is also where fees are determined and paid and directions are given to unloading area. The load is inspected for both hazardous wastes and liquids. Loads with unacceptable contents are rejected.

Loads will be checked prior to loading the material into processing equipment. The LEA will be notified of the identification, segregation, acceptance and disposition of any unlawful delivery of hazardous material identified through this load check program. Any such items shall be handled and disposed of by trained personnel in accordance with applicable laws and regulations.

The facility's scale personnel will be trained to screen incoming vehicles for presence of unacceptable wastes. The facility personnel training programs will include instruction in methods to observe incoming loads and to check for the receipt of unacceptable material.

## Hazardous Waste Exclusion Program

Only non-hazardous wastes will be accepted at the site for processing. Load checking by trained collection personnel will be employed to prevent receipt of discarded hazardous materials at this site. There is an approved Hazardous Materials Business Plan on file with the Environmental Health Division to account for vehicle/equipment fuel, solvents, and other materials kept on the site and used for maintenance activities and provide for emergency response measures involving those inventoried materials.

## **Parking**

There are two parking lot areas as shown on the site plan for public and employee use.

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Employee and truck parking areas are adjacent to the administrative offices and MRF building, on the eastern portion of the site; truck parking consists of 40 spaces and the employee area contains 90 spaces. Public parking is available near the office building and contains 12 spaces.

### **Solid Waste Removal**

NRWS assures that all MSW and residual materials are removed from the facility within 48 hours of receipt. This includes all MSW residuals resulting from the processing of food waste and yard waste, or recyclables material recovery operations at the facility.

### **Supervision and Personnel**

NRWS will provide adequate supervision and a sufficient number of qualified personnel to ensure proper operation of the site in compliance with all applicable laws, regulations, permit conditions and other requirements. NRWS will notify the LEA in writing of any changes to the name, address and telephone number of the operator or other person responsible for the operation. A copy of the written notification shall be placed in the operating record.

The types of supervisory personnel provided include:

General Manager: This person is responsible for overall site operations. Reporting to the General Manager will be the Operations Manager whose duties will be to oversee the specifics of his/her respective operation.

Operations Managers: An operations manager is regularly on-site during operating hours to oversee material processing, transfer, and maintenance operations.

Supervisors: In addition to the Operations Managers, qualified supervisors are available during operating hours to oversee facility operations. There will be at least one supervisor on site when the Facility is in operation.

The following personnel are involved with supervising the facility operations:

| <u>Operator</u>              | <u>Solid Waste Experience</u> |
|------------------------------|-------------------------------|
| Greg Kelley, General Manager | 20 years                      |

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Station Personnel

NRWS employees consist of the following positions whose jobs relate to the Material Recovery Facility:

Truck Drivers: 31

Qualifications: Must hold a Class B license and have a good driving record. All are members of Teamsters 490.

Scale House Personnel: 3

Qualifications: Minimal computer skills, accuracy in record keeping and good attendance.

Sorters: 17

Qualifications: Excellent eye-hand coordination and attendance.

Shop Personnel: 9

Qualifications: Class B Driver License and good driving record (for the street sweeper); interest and aptitude for training in small engine repair, etc.

Working Foremen: 4

Managers: 4

(Working Foremen and Managers provide two levels of supervision.)

Qualifications: Ability to work well with others. Ability to both give and follow directions.

**Training**

Personnel assigned to the operation or facility will be adequately trained in subjects pertinent to site solid waste operations and maintenance, hazardous materials recognition and screening, use of mechanized equipment, environmental controls, emergency procedures and the requirements of Title 14. A record of such training history will be maintained and made available for inspection.

Personnel will be trained in the proper use of facility equipment. Potential hazards and safety features will be stressed. No employee will be permitted to operate equipment until the employee has demonstrated that he or she is competent to operate that equipment. Annual review and training ensure continued safe operations of the facility and that compliance with regulations will occur.

The Safety Supervisor is responsible for emergency and health and safety training, and he organizes training sessions for employees.

All supervisors (managers and working foremen) go through CPR and First Aid classes. These have been taught by David Mellow through the American Heart Association.



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Regular tailgate meetings, and monthly safety meetings, will be recorded in the record.

### **Vector, Bird and Animal Control**

The Material Recovery Facility has been in operation since February, 1994. There have been no problems with vectors or birds. Should a problem occur, a pest control business would be called in immediately.

To prevent vector or bird problems, all mixed municipal waste will be unloaded and sorted almost immediately upon arrival and removed to the Transfer Station. The only exception will be late day deliveries by public vehicles after the Transfer Station has closed (4:00p.m.) Most NRWS trucks deliver before 2:00 in the afternoon. The late afternoon loads will be sorted immediately, and non-recyclables will be sorted overnight in 40-yard, lidded drop boxes that will remain in place at the foot of the conveyor belt system until the next morning.

The use permit mitigation measures allow no mixed waste to be stored outside the building and require mixed waste to be sorted and hauled to the Devlin Road Transfer Station on the same day it is received. The only exception is any waste received when the transfer station is closed must be sorted on the day received, then stored in an enclosed container and taken to the Transfer Station before noon the next day. These measures are intended to prevent a nuisance or public health threat.

### **Communications Equipment**

NRWS will have adequate communication equipment available to site personnel to allow quick response to emergencies. The General Manager, Operations Manager and the supervisors all have cellular telephones.

Phone and radio communication will be available at all times during operating hours for the General Manager, Operations Manager, or supervisors. There is a phone in the administrative office.

### **Fire Fighting Equipment**

Onsite processing buildings are designed and constructed with appropriate fire control equipment, which may include sprinklers, fire extinguishers, or other requirements.

The entire facility has a fire sprinkler system and a fire alarm. All outer walls of the sorting/compacting/baling portions of the Material Recovery Facility have fire extinguishers. Sprinklers are installed under the elevated sorting conveyor belts. All vehicles, forklifts, tractors, and trucks are equipped with fire extinguishers. Medical

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kits are available in the main part of the Material Recovery Facility as well as the shop.

Front-end loaders and excavator are available to aid in the management of materials to combat fire or prevent its spread. All firefighting equipment is properly maintained and available on a continuous basis.

### **Housekeeping**

NRWS provides adequate housekeeping daily for the maintenance of facility equipment and shall minimize accumulations of fuel drums, inoperable equipment, parts, tires, scrap, and similar items.

Parts will be stored within the maintenance shop. In addition to the programs described above, facility personnel will ensure that supplies, parts, containers and equipment are properly stored so that they do not present a hazard or nuisance to the facility.

### **Lighting**

The facility has been equipped with adequate lighting, either through natural or artificial means, to ensure the ability to monitor incoming loads, effectiveness of operations, and public health, safety and the environment.

The site has existing night lighting consisting of downward directed lights mounted on building exteriors or poles located in the adjacent operations areas. As proposed operations areas are developed, additional lighting needs will be assessed; any additional lighting installed will consist of downward directed lights mounted on building exteriors or poles located in those operations areas, consistent with the Conditions of Approval for the project.

Mobile equipment such as loaders and trucks are all equipped with lights.

### **Power Failure**

In the event of a major power outage, it is not necessary to cease operations. The scale may be equipped with battery packs for short-term emergency operations, or deliveries will be estimated by volume, with the tonnages estimated based upon conversion factors agreed upon with the LEA. Processing operations can continue uninterrupted during daylight hours. Mobile light towers, such as those used during nighttime construction activities, may be rented from local rental companies to allow continued operations during periods of darkness, if necessary. Mobile equipment used in the transfer and processing operations, and the waste collection trucks using the facility are equipped with lights for nighttime operation.

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A standby power generator may be rented from local rental companies for other onsite operations during an extended power loss, if necessary.

### **Site Security**

Site security is provided by eight foot high fencing and a locked gate. A slatted, chain link fence with concertina (three strands of barbed wire) along the top encloses the entire perimeter of the property. Access to the site is through a locked gate. When the gates are open, the first stop is the scale house. An employee is at the scale house during receiving hours.

The site has existing night lighting, primarily for site security, consisting of downward directed lights mounted on building exteriors or poles located in the adjacent operations areas.

### **Site Attendant**

The Facility is open to the general public from 8:00 a.m. to 5:00 p.m.. There will be a scale house attendant present during commercial receiving hours (from 5:00 a.m. to 5:00 p.m.), Monday through Sunday, when the facility is open. During operational hours, Monday through Sunday, there will either be the Operations Manager or a supervisor available.

### **Traffic Control**

The primary route of delivery to the site is via Napa-Vallejo Highway (Highway 29). From the south, vehicles use S. Kelly Road to Devlin Road and Tower Road, to the Levitin Way entrance; from the north the direct route is via Tower Road to the Levitin Way entrance. Regional access to the facility is provided by Highways 12 and 29. There are no schools, hospitals, or essential public facilities between Highway 29 and the site on Levitin Way. Entrance gates are closed and locked when the facility is not operating.

Trucks with full loads enter the site from Levitin Way and proceed to the truck scale(s) alongside the scale house. After being weighed, trucks hauling commercial and residential recyclables are directed to the Material Recovery Facility tipping area where they back in to dump their materials. Transfer trucks hauling solid waste to be transferred off-site are loaded at the west side of the MRF building. The trucks then exit the site, proceeding across the outbound scale(s) and exiting onto Levitin Way and Tower Road through the main gate.

Trucks carrying green material, food material, or CDI debris are weighed at the truck scale(s) shown on the site plan. The green and food material is directed to the organic materials receiving and processing area or building to dump their loads. CDI materials will be tipped at a separate location to the north of the facility.

An Onsite Traffic Capacity Study has been conducted by CalRecovery (included as Appendix E) and has analyzed equipment needs to ensure the facility design is adequate to provide for safe operations.

## **Visual Screening**

The driveway and entrance areas to the facility are the only ground level areas visible to passersby. A daily (at minimum) site walk by facility personnel focuses on ensuring that the entry and driveway are free of debris and a clean appearance maintained.

There is a slatted, chain link fencing surrounding accessible portions of the site to screen the operation from the view of the public on the adjacent streets. A landscaped setback area consisting of living plant materials—a mix of shrubbery and trees is utilized to screen the facility.

There are no scenic vistas or scenic highways visible from the site; nor is the facility visible from any nearby scenic vista or scenic highway.

## **Water Supply**

The Material Recovery Facility is served by the City of American Canyon's Department of Public Works for both water and wastewater. Bottled or tap water located in the MRF building may be supplied to the employees; coolers or individual bottles of water may be maintained at employee break areas during operations at other locations of the facility.

The facility has a restroom with showers, a locker room and lunchroom. The operator will maintain all sanitary and hand-washing facilities, which is required by applicable state and/or local requirements, in a reasonably clean and adequately supplied condition.

## **J. Process Water**

### **18221.6(j) anticipated volume of quench or process water, and the planned method of treatment, and disposal of any wastewater**

The facility operates in accordance with a Stormwater Management Plan (see Appendix H), which is designed to provide proper mitigation measures – both for operations and site improvements – to protect water quality in conformance with the NPDES requirements.

The anticipated volume of process water from the MRF is the amount of liquids that may make contact with the recyclables, compostable materials, or CDI debris during storage, processing, or transfer. The amount of free liquids that may be generated

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from this material is minimized through the use of best management practices; all process water is properly treated prior to being discharged to the sanitary sewer or storm system, as appropriate.

Dust mitigation does involve spraying of water from hand held hoses onto excessively dust-producing materials during transfer operations. The amount of liquids added for dust suppression is minimal and is not enough to generate any ponding or standing water.

The facility has coverage under the NPDES General Industrial Permit issued by the State Water Resources Control Board for stormwater, which is retained onsite in a lined basin.

Surface water runoff, including all process water, will be directed to an onsite retention basin by use of grading design, drain pipes, and drainage ditches, where it will be properly treated, if necessary, to eliminate potential environmental impacts.

## **RECORDKEEPING**

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### **Weight Volume Records**

The facility operator obtains a record of load weights by weighing all arriving and exiting vehicles, which do not already have prerecorded tare weights. Other data collected and recorded includes (1) type of vehicle, (2) type of material, (3) date, and (4) time. From this database, the facility operator provides a monthly report to the communities it serves and to the LEA summarizing the quantity of materials received, recovered, and landfilled. The raw data is collected by the scale computer equipment from scale inputs and also from the scale operator.

### **Special Occurrences**

Records of special occurrences are also be maintained at the facility. Incidents involving fires, accidents, or explosions, regarding hazardous wastes, as well as any other unusual events, are logged as they occur. This information is kept on file in the administrative office under the supervision of the General Manager of the Facility.

NRWS will maintain a daily log book or file of special occurrences encountered during operations and methods used to resolve problems arising from these events, including details of all incidents that required implementing emergency procedures. Special occurrences will include but are not limited to: fires, injury and property damage, accidents, explosions, receipt or rejection of prohibited wastes, lack of sufficient number of personnel pursuant, flooding, earthquake damage and other unusual occurrences. In addition, NRWS will notify the LEA by telephone within 24 hours of all incidents requiring the implementation of emergency procedures, unless the LEA determines that a less immediate form of notification will be sufficient to protect public health and safety and the environment.

### **Complaints**

NRWS will record any written public complaints received by the operator, including:

- (1) the nature of the complaint,
- (2) the date the complaint was received,
- (3) if available, the name, address, and telephone number of the person or persons making the complaint, and
- (4) any actions taken to respond to the complaint;

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## **Training**

NRWS will maintain records of employee training as required in an operations log kept in the administrative offices.

## **Inspection of Records**

Records of the quantities of material received, recovered, and disposed of are kept at the administrative office, during normal business hours and will be accessible for three (3) years and will be available for inspection by the LEA and other duly authorized regulatory agencies during normal working hours.

Equipment maintenance records are kept in the maintenance room office. Employee training records, safety records, material safety data sheets, and incident records are maintained on file in the administration office.

NRWS will submit copies of specified records to the LEA upon request or at a frequency approved by the LEA.

## PEAK LOADING

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### K. Peak Loading

#### **18221.6(k) description of provisions to handle unusual peak loading**

Unusual peak loadings are most likely to occur after a holiday or unusual local event. Daily peak conditions increase tonnage by 10% at the most, according to NRWS's past experience. Depending upon the amount of peak loading, NRWS can call in part time workers as needed. The facility's use permit is for a three-shift, 24 hour operation. At the present time, all sorting, compaction and baling of recyclables is easily handled in one shift. In general, NRWS employees are trained for more than one function, so that one person may sort for a couple of hours, handle the scales or drive a truck for the remainder of their shift.

If existing staff and equipment working within the posted operating hours is not sufficient to transfer incoming material, the vehicles will be routed to another recovery or disposal facility.

Standby Equipment: Essential equipment is purchased only from vendors who can supply spare parts or repair parts within 24 hours of a request for such items. The most critical on-site equipment is the front-end loader. Front-end loaders can be rented at nearby equipment rental yards should the equipment not be able to be repaired in a timely manner.

### L. Equipment

#### **18221.6(l) description of transfer, recovery and processing equipment, including classification, capacity and the number of units**

NRWS has adequate equipment in type, capacity and number, and sufficiently maintained to allow the facility to properly operate.

The following equipment used at the facility are shown in Table 4 below:



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**Table 4**  
**Facility Equipment**

| <b>Description</b> | <b>Quantity</b> | <b>Key Functions</b>                                                          |
|--------------------|-----------------|-------------------------------------------------------------------------------|
| Fork-Lifts         | 4               | MRF operations                                                                |
| Front-end loaders  | 3               | Loading and unloading of materials at all operations areas                    |
| Truck Scales       | 2               |                                                                               |
| Street Sweeper     | 1               | General housekeeping and dust control                                         |
| Processing Line    | 1               | Used for sorting and mechanical separation of recyclable materials            |
| Baler              | 1               | Baler to process corrugated cardboard, paper, plastics, and tin/aluminum cans |

## **M. Final Disposal of Solid Waste**

### **18221.6(m) planned method for final disposal of the solid waste**

The Facility is projected to be capable of recovering 60 to 75% of all of the material that is processed at the facility (based on variable tonnages received for each waste stream).

MSW is routinely transferred to a permitted solid waste disposal facility for disposal.

## **N. Storage of Recycled Material**

### **18221.6(n) planned method for the storage and removal of salvaged material**

The Material Recovery Facility will be storing recovered material in the bunker below from where it was sorted. The multi-bunker systems will store cardboard, newspaper, mixed paper, tin/ferrous, aluminum, plastics No. 1, plastics No. 2, and plastics No. 3-7. When the bunkers are full, the materials are baled.

There are storage areas for recovered and recycled material outside of the MRF building adjacent to the truck parking area and to its south:

- Baled storage on paved surfaces outside of the MRF building.
- Finished compost on the finished compost storage stockpile area at the north end of the compost pad.

Any residual solid waste resulting from recovery operations or routine cleaning is removed from the site within 48 hours.

## MANAGEMENT ORGANIZATION

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### O. Management

**(o) resume of management organization which will operate the facility**

Resumes are provided in Appendix F.

**Table 5**

### Emergency Contact List

|                                                       |                                                                  |
|-------------------------------------------------------|------------------------------------------------------------------|
| Napa Recycling & Waste Services – Office              | (707) 603-1181                                                   |
| <i>After Hours:</i><br>Greg Kelley<br>General Manager | (707) 287-1961 cell<br>2316 Vichy Ave.<br>Napa, California 94558 |

## REGULATORY REQUIREMENTS

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### P. Permits and Approvals

#### **18221.6(p) list of permits already obtained, and the date obtained or last revised**

The City and the operator, NRWS, maintain many local and state permits for the MDF site: The County of Napa approved Use Permit U-90-2, and certified a Negative Declaration in 1991, which has been modified several times over the years; February 9, 1994 (93248-MOD), September 16, 1994 (93530-MOD), April 16, 1995 (94129-MOD), March 20, 1996 (95172-MOD), and September 5, 1997 (96468-MOD), and with each Use Permit Modification, a Negative Declaration was certified. Pursuant to Section 15150 of the California Environmental Quality Act, the Negative Declarations that were prepared for each of the existing modification of the facility are incorporated into this Initial Study by reference and listed below:

- Negative Declaration for Use Permit #U-90-29: Establishment of recyclable material transfer facility, yard waste recycling facility, administrative offices, and truck storage administrative maintenance. (2/20/91)
- Negative Declaration for Solid Waste Facility Permit #SWF-009 (10/2/92) SCH #92033087
- Negative Declaration for Use Permit Modification #93530-MOD: Installation of surface runoff retention and filtration ponds (9/16/94) SCH #94073045
- Negative Declaration for Use Permit Modification #94129-MOD. (8/9/95) SCH #95023019
- Negative Declaration for Use Permit Modification #95172-MOD (3/28/96)
- Negative Declaration for Use Permit 12-0022 by the City of Napa(10/31/14)
- CEQA Technical Addendum by the city of Napa (7/2/14)
- CEQA Technical Addendum by the City of Napa (5/24/16)

The Facility has obtained the following permits:

- General Permit for Storm water Discharges Associated with Industrial Activity , Waste Discharge Identification (WDID) Number 2 28I020443, State Water Resources Control Board (State Water Board)
- Order No. 96-098, Conditional Waiver of Waste Discharge Requirements (WDR) for Composting Operations, California Regional Water Quality Control Board, San Francisco Bay Region (Water Board)

Transfer/Processing Report  
*City of Napa Material Diversion Facility*  
*820 Levitin Way, Napa, California 94558*

- Permit to Operate Plant #17403, Bay Area Air Quality Management District (BAAQMD)
- Napa County Agricultural Commissioner/California Department of Food and Agriculture (CDFA)/United States Department of Agriculture (USDA) Compliance Agreement No. 28-03-SOD-010 – *Phytophthora* Quarantine

# Storm Water Pollution Prevention Plan

Napa City Material Recovery  
820 Levitin Way  
Napa, California, 94558

WDID #: 2 28I020443

Initial Plan By:



NAPA CITY MATERIAL WASTE RECOVERY  
Storm Water Pollution Prevention Plan  
WDID: 2 28I020443 SIC: 5093, 2875  
820 Levitin Way, Napa, California

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)  
GENERAL PERMIT FOR STORM WATER DISCHARGES  
ASSOCIATED WITH INDUSTRIAL ACTIVITIES  
ORDER NPDES NO. CAS000001

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Twenty-five selected operationally germane General Findings from the General Permit for Storm Water Discharges Associated with Industrial Activities (General Order or IGP) are repeated here for clarity and also include the referenced IGP section.

- 1) State Water Board Order 97-03-DWQ is rescinded as of the effective date of the General Permit (July 1, 2015) except for Order 97-03-DWQ's requirement that annual reports be submitted by July 1, 2015 and except for enforcement purposes (IGP I.A.4).
- 2) The General Permit authorizes discharges of industrial storm water to waters of the United States, so long as those discharges comply with all requirements, provisions, limitations, and prohibitions in the General Permit (IGP I.A.8).
- 3) The General Permit does not preempt or supersede the authority of municipal agencies to prohibit, restrict, or control industrial storm water discharges and authorized NSWDS that may discharge to storm water conveyance systems (IGP I.A.13).
- 4) Pursuant to 40 Code of Federal Regulations section 131.12 and State Water Board Resolution 68-16, which incorporates the requirements of 40 Code of Federal Regulations section 131.12 where applicable, the State Water Board finds that discharges in compliance with the General Permit will not result in the lowering of water quality to a level that does not achieve water quality objectives and protect beneficial uses. Any degradation of water quality from existing high quality water to a level that achieves water quality objectives and protects beneficial uses is appropriate to support economic development. This General Permit's requirements constitute best practicable treatment or control for discharges of industrial storm water and authorized non-storm water discharges, and are therefore consistent with those provisions (IGP I.A.15).
- 5) Compliance with any specific limits or requirements contained in the General Permit does not constitute compliance with any other applicable permits (IGP I.A.17)
- 6) With the exception of certain authorized Non-Storm Water Discharges (NSWDs) as defined in Section IV, the General Permit prohibits NSWDS. The State Water Board recognizes that certain NSWDS should be authorized because they are not generated by industrial activity, are not significant sources of pollutants when managed appropriately, and are generally unavoidable because they are related to safety or would occur regardless of industrial activity. Prohibited NSWDS may be authorized under other individual or general NPDES permits, or waste discharge requirements issued by the Water Boards (IGP I.A.27).

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- 7) Prohibited NSWDS are referred to as unauthorized NSWDS in the General Permit. Unauthorized NSWDS shall be either eliminated or permitted by a separate NPDES permit. Unauthorized NSWDS may contribute significant pollutant loads to receiving waters. Measures to control sources of unauthorized NSWDS such as spills, leakage, and dumping, must be addressed through the implementation of Best Management Practices (BMPs), (IGP I.A.28).
- 8) The General Permit incorporates discharge prohibitions contained in water quality control plans, as implemented by the Water Boards (IGP I.A.29).
- 9) Direct discharges of waste, including industrial storm water discharges, to Areas of Special Biological Significance (ASBS) are prohibited unless the Discharger has applied for and the State Water Board has granted an exception to the State Water Board's 2009 Water Quality Control Plan for Ocean Waters of California as amended by State Water Board Resolution 2012-0056 (California Ocean Plan) allowing the discharge (IGP I.A.30).
- 10) Section 301(b) of the Clean Water Act and 40 Code of Federal Regulations section require NPDES permits to include technology-based requirements at a minimum, and any more stringent effluent limitations necessary for receiving waters to meet applicable water quality standards. Clean Water Act section 402(p)(3)(A) requires that discharges of storm water runoff from industrial facilities comply with Clean Water Act section 301 (IGP I.A.31).
- 11) The General Permit requires control of pollutant discharges using Best Available Technology economically achievable (BAT) and Best available pollutant Control Technology (BCT) to reduce and prevent discharges of pollutants, and any more stringent effluent limitations necessary for receiving waters to meet applicable water quality standards (IGP.I.A.32).
- 12) It is not feasible for the State Water Board to establish numeric technology based effluent limitations for discharges authorized by the General Permit at this time. The rationale for this determination is discussed in detail in the Fact Sheet of the General Permit. Therefore, the General Permit requires Dischargers to implement minimum BMPs and applicable advanced BMPs as defined in Section X.H (collectively, BMPs) to comply with the requirements of this General Permit. This approach is consistent with U.S. EPA's 2008 Multi- Sector General Permit for Stormwater Discharges Associated with Industrial Activity (2008 MSGP), (IGP I.A.33).
- 13) 40 CFR section 122.44(d) requires that NPDES permits include Water Quality Based Effluent Limitations (WQBELs) to attain and maintain applicable numeric and narrative water quality standards for receiving waters (IGP I.A.34).

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- 14) Where numeric water quality criteria have not been established, 40 CFR section 122.44(d)(1)(vi) provides that WQBELs may be established using U.S. EPA criteria guidance under section 304(a) of the Clean Water Act, a proposed state criteria or policy interpreting narrative criteria supplemented with other relevant information, and/or an indicator parameter (IGP I.A.35).
- 15) The General Permit requires Dischargers to implement BMPs when necessary, in order to support attainment of water quality standards. The use of BMPs to control or abate the discharge of pollutants is authorized by 40 Code of Federal Regulations section 122.44(k)(3) because numeric effluent limitations are infeasible and implementation of BMPs is reasonably necessary to achieve effluent limitations and water quality standards, and to carry out the purposes and intent of the Clean Water Act. (40 C.F.R. §122.44(k)(4)), (IGP I.A.36).
- 16) The General Permit requires compliance with receiving water limitations based on water quality standards. The primary receiving water limitation requires that industrial storm water discharges and authorized NSWDS not cause or contribute to an exceedance of applicable water quality standards. Water quality standards apply to the quality of the receiving water, not the quality of the industrial storm water discharge. Therefore, compliance with the receiving water limitations generally cannot be determined solely by the effluent water quality characteristics. If any Discharger's storm water discharge causes or contributes to an exceedance of a water quality standard, that Discharger must implement additional BMPs or other control measures in order to attain compliance with the receiving water limitation. Compliance with water quality standards may, in some cases, require Dischargers to implement controls that are more protective than controls implemented solely to comply with the technology-based requirements in the General Permit (IGP I.A.37).
- 17) The General Permit requires the development of a site-specific Storm Water Pollution Prevention Plan (SWPPP) in accordance with Section X of this General Permit. The SWPPP must include the information needed to demonstrate compliance with the requirements of this General Permit. The SWPPP must be submitted electronically via SMARTS, and a copy be kept at the facility. SWPPP revisions shall be completed in accordance with Section X.B of the General Permit (IGP I.A.54).

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- 18) The General Permit complies with 40 CFR section 122.44(i), which establishes monitoring requirements that must be included in storm water permits. Under this General Permit, Dischargers are required to: (a) conduct an Annual Comprehensive Facility Compliance Evaluation (Annual Evaluation) to identify areas of the facility contributing pollutants to industrial storm water discharges, (b) evaluate whether measures to reduce or prevent industrial pollutant loads identified in the Discharger's SWPPP are adequate and properly implemented in accordance with the terms of this General Permit, and (c) determine whether additional control measures are needed (IGP I.A.55).
- 19) The General Permit contains monitoring requirements that are necessary to determine whether pollutants are being discharged, and whether response actions are necessary. Data and information resulting from the monitoring will assist in Dischargers' evaluations of BMP effectiveness and compliance with the General Permit. Visual observations are one form of monitoring. The General Permit requires Dischargers to perform a variety of visual observations designed to identify pollutants in industrial storm water discharges and their sources. To comply with the General Permit Dischargers shall: (1) electronically self-report any violations via SMARTS, (2) comply with the Level 1 status and Level 2 status ERA requirements, when applicable, and (3) adequately address and respond to any Regional Water Board comments on the Discharger's compliance reports (IGP I.A.56).
- 20) The General Permit incorporates a multiple objective performance measurement system that includes Numerica Action Limits (NALs), new comprehensive training requirements, Level 1 ERA Reports, Level 2 ERA Technical Reports, and Level 2 ERA Action Plans. Two objectives of the performance measurement system are to inform Dischargers, the public and the Water Boards on: (1) the overall pollutant control performance at any given facility, and (2) the overall performance of the industrial statewide storm water program. Additionally, the State Water Board expects that this information and assessment process will provide information necessary to determine the feasibility of numeric effluent limitations for industrial dischargers in the next reissuance of this General Permit, consistent with the State Water Board Storm Water Panel of Experts' June 2006 Recommendations (IGP I.A.61).

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- 21) The General Permit contains annual and instantaneous maximum NALs. The annual NALs are established as the 2008 MSGP benchmark values, and are applicable for all parameters listed in Table 2. The instantaneous maximum NALs are calculated from a Water Board dataset, and are only applicable for Total Suspended Solids (TSS), Oil and Grease (O&G), and pH. An NAL exceedance is determined as follows:
- a. For annual NALs, an exceedance occurs when the average of all analytical results from all samples taken at a facility during a reporting year for a given parameter exceeds an annual NAL value listed in Table 2 of the General Permit; or,
  - b. For the instantaneous maximum NALs, an exceedance occurs when two or more analytical results from samples taken for any parameter within a reporting year exceed the instantaneous maximum NAL value (for Total Suspended Solids, and Oil and Grease), or are outside of the instantaneous maximum NAL range (for pH) listed in Table 2 of this General Permit. For the purposes of the General Permit, the reporting year is July 1 through June 30 (IGP I.A.62).
- 22) Exceedances of the NALs that are attributable solely to pollutants originating from non-industrial pollutant sources (such as run-on from adjacent facilities, non-industrial portions of the Discharger's property, or aerial deposition) are not a violation of this General Permit because the NALs are designed to provide feedback on industrial sources of pollutants. Dischargers may submit a Non-Industrial Source Pollutant Demonstration as part of their Level 2 ERA Technical Report to demonstrate that the presence of a pollutant causing an NAL exceedance is attributable solely to pollutants originating from non-industrial pollutant sources (IGP I.A.66).
- 24) The General Permit establishes design storm standards for all treatment control BMPs. These design standards are directly based on the standards in State Water Board Order 2000-0011 regarding Standard Urban Storm Water Mitigation Plans (SUSMPs). These design standards are generally expected to be consistent with BAT/BCT, to be protective of water quality, and to be effective for most pollutants. The standards are intended to eliminate the need for most Dischargers to further treat/control industrial storm water discharges that are unlikely to contain pollutant loadings that exceed the NALs set forth in the General Permit (IGP I.A.68).
- 25) Regional Water Boards are primarily responsible for enforcement of the General Permit. The General Permit recognizes that Regional Water Boards have the authority to protect the beneficial uses of receiving waters and prevent degradation of water quality in their region. As such, Regional Water Boards may modify monitoring requirements and review, comment, approve or disapprove certain Discharger submittals required under this General Permit (IGP I.A.74).

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Notice of Intent to Comply with the IGP:

*"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons that manage the system or those persons directly responsible for gathering the information, to the best of my knowledge and belief, the information submitted is, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."*

---

(signature / date)

Greg Kelley  
General Manager

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|                                                    |                                                                                                                                                                                                                                  |
|----------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| General Description:                               | Napa City Material Waste Recovery operates primarily as a compost collector and processor for Napa County and other cities                                                                                                       |
| Industrial General Permit (link to SWB):           | WQO 2014-0057-DWQ                                                                                                                                                                                                                |
| Standard Industry Code:                            | 5093: Scrap and Waste Materials<br>2875: Fertilizers; mixing only                                                                                                                                                                |
| Signed Certification                               | As required, the SWPPP has been certified and signed.                                                                                                                                                                            |
| <i>IGP Reference: Section II.A</i>                 |                                                                                                                                                                                                                                  |
| POLLUTION PREVENTION TEAM (Table 1)                | As required, the Storm Water Pollution Prevention Team has been established. The responsibilities, duties, and activities of all team members are described in Table 1.                                                          |
| <i>IGP Reference: Section X.D.1</i>                |                                                                                                                                                                                                                                  |
| EXISTING FACILITY PLANS (Attachment 4)             | This SWPPP was developed and implemented and will be revised as necessary to be consistent with any applicable municipal, state, and federal requirements that pertain to the requirements in this General Permit.               |
| <i>IGP Reference: Section X.D.2</i>                |                                                                                                                                                                                                                                  |
|                                                    | Any existing plans, procedures or other regulatory compliance documents, if applicable are included in Attachment 4.                                                                                                             |
| FACILITY OPERATING HOURS                           | The Facility is open Monday-Friday 0500-2130, Saturday & Sunday 0500-1630.                                                                                                                                                       |
| <i>IGP Reference: Section X.D.2.d</i>              |                                                                                                                                                                                                                                  |
| VICINITY MAP (Figure 1)                            | The vicinity map shows the facility's location as related to receiving water bodies and adjacent land uses.                                                                                                                      |
| Site Maps (Figures 2 thru 4)                       | Site maps have been prepared that include notes, legends, a north arrow, and other data as appropriate to ensure the map is clear, legible, and understandable.                                                                  |
| <i>IGP Reference: Section X.E.3</i>                |                                                                                                                                                                                                                                  |
| Facility boundaries (Figure 2)                     | The Facility is bound to the west by a railway and industrial properties; to the north by Tower Road and industrial properties; to the east by Devlin Road and industrial properties; and to the south by industrial properties. |
| <i>IGP Reference: Section X.E.3.a</i>              |                                                                                                                                                                                                                                  |
| Drainage Areas within Facility Boundary (Figure 3) | There are five drainage areas within the Facility: Northeast, Central-East, Southeast, Southwest (to Ponds P1-P3) and Northwest (to Ponds P4 & P5).                                                                              |
| <i>IGP Reference: Section X.E3.a</i>               |                                                                                                                                                                                                                                  |



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|                                                                                                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
|------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Drainage areas and portions impacted by surrounding area discharge within the facility boundary (Figure 3) | No areas are impacted by run-on. However, commingled drainage conveyances cross east to west in the center and south of the Facility.                                                                                                                                                                                                                                                                                                                  |
| <i>IGP Reference: Section X.E3.a</i>                                                                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| Direction of flow (Figure 3)                                                                               | General flow direction is depicted on Figure 3.                                                                                                                                                                                                                                                                                                                                                                                                        |
| <i>IGP Reference: Section X.E3.a and b</i>                                                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| On-facility surface water bodies (Figure 3)                                                                | Five retention, settling and biofiltration ponds are located at the Facility and may or may not contain water.                                                                                                                                                                                                                                                                                                                                         |
| <i>IGP Reference: Section X.E3.a</i>                                                                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| Areas of soil erosion and erodible surfaces (Figure 3)                                                     | No areas of soil erosion are located on the Facility.                                                                                                                                                                                                                                                                                                                                                                                                  |
| <i>IGP Reference: Section X.E3.a</i>                                                                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| <i>IGP Reference: Section X.G.1.f</i>                                                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| Nearby water bodies                                                                                        | An unnamed municipal drainage system lies to the south and west of the Facility, Fegan Creek lies to the north, and Napa River (impaired for sediment) is to the West.                                                                                                                                                                                                                                                                                 |
| <i>IGP Reference: Section X.E3.a</i>                                                                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| Municipal storm drain inlets, discharge points, and sampling locations (Figure 3)                          | There are five discharge locations:<br>1. Sample Point SP-1 is at the outfall of Pond P-3.<br>2. Sample Point SP-2 is located at the drain inlet southeast of the office.<br>3. Sample Point SP-3 is located at the central entrance of the northeast storage area.<br>4. Sample Point SP-6 is located at the pipe entering the drainage ditch in the southeast corner of the Facility.<br>5. Sample Point SP-7 is located at the outfall of Pond P-5. |
| <i>IGP Reference: Section X.E3.a</i>                                                                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| <i>IGP Reference: Section X.E3.b</i>                                                                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| Structural control measures (Figure 2)                                                                     | The two complex series of settling/retention/biofiltration ponds capture and treat most of the stormwater generated at the Facility.                                                                                                                                                                                                                                                                                                                   |
| <i>IGP Reference: Section X.E3.c</i>                                                                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| Impervious areas (Figure 2)                                                                                | The Facility is composed of composted areas, dirt / gravel, and asphalt.                                                                                                                                                                                                                                                                                                                                                                               |
| <i>IGP Reference: Section X.E3.d</i>                                                                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| Location of Directly Exposed Materials (Figure 4)                                                          | Compost materials (input and output), processed MRF materials, trucks, bins and other equipment are directly exposed.                                                                                                                                                                                                                                                                                                                                  |
| <i>IGP Reference: Section X.E3.e</i>                                                                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                        |

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|                                                                                   |                                                                                                                                                                                                                                 |
|-----------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Identification and description of significant spills and leaks (Figure 4)         | No significant spills or leaks have occurred at the Facility.                                                                                                                                                                   |
| <i>IGP Reference: Section X.E3.f</i><br><i>IGP Reference: Section X.G.1.d</i>     |                                                                                                                                                                                                                                 |
| Areas of Industrial Activity (Figure 4)                                           | Areas of industrial activity include: Compost Areas, Compost Buildings, Retention / Settling / Biofiltration Ponds, Loading Dock, Truck Scale, Wash Rack, Fuel Station, Truck Parking, Future Expansion Areas, and a Yard Area. |
| <i>IGP Reference: Appendix 1</i>                                                  |                                                                                                                                                                                                                                 |
| Areas of Non-industrial activity (Figure 4)                                       | The Office and associated employee parking the only areas of non-industrial activity.                                                                                                                                           |
| <i>IGP Reference: Appendix 1</i>                                                  |                                                                                                                                                                                                                                 |
| Storage areas/storage tanks (Figure 4)                                            | Partitioned diesel/gasoline AGT, new oil AGT, new coolant AGT, waste oil AGT and waste coolant AGT are located at the MRF area. Storage areas for materials and equipment are located throughout the Facility.                  |
| <i>IGP Reference: Section X.E3.f</i><br><i>IGP Reference: Section X.G.1.b</i>     |                                                                                                                                                                                                                                 |
| Shipping/receiving and material handling/processing areas (Figure 4)              | Two main areas of shipping/receiving and handling processing are at the Composting areas and the MRF.                                                                                                                           |
| <i>IGP Reference: Section X.E3.f</i><br><i>IGP Reference: Section X.G.1.b</i>     |                                                                                                                                                                                                                                 |
| Fueling areas (Figure 4)                                                          | There is a fuel station on the eastern side of the Material Recover Facility Building. There is a double contained diesel and gasoline partitioned tank.                                                                        |
| <i>IGP Reference: Section X.E3.f</i>                                              |                                                                                                                                                                                                                                 |
| Vehicle and equipment storage/maintenance (Figure 4)                              | Vehicles and equipment are maintained at the Facility repair shops and stored throughout the Facility.                                                                                                                          |
| <i>IGP Reference: Section X.E3.f</i>                                              |                                                                                                                                                                                                                                 |
| Waste treatment/disposal (Figure 4)                                               | Trash, HAZMAT, waste oil, and coolant are temporarily stored and hauled off by a contractor. Storm water and compost contact water are treated through a complex series of ponds.                                               |
| <i>IGP Reference: Section X.E3.f</i>                                              |                                                                                                                                                                                                                                 |
| Identification and description of dust or particulate generation areas (Figure 4) | Dust can be generated by compost and MRF activities.                                                                                                                                                                            |
| <i>IGP Reference: Section X.E3.f</i><br><i>IGP Reference: Section X.G.1.c</i>     |                                                                                                                                                                                                                                 |

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|                                        |                                                                                                                                                                                                                               |
|----------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Cleaning and material reuse (Figure 4) | Facility vehicle cleaning is conducted at the Wash Rack. Water from the Wash Rack is captured in a sump and pumped into a tank. The water is then reused on incoming yard waste and composting material for moisture control. |
|                                        | <i>IGP Reference: Section X.E3.f</i>                                                                                                                                                                                          |

|                                                                                  |                                                         |
|----------------------------------------------------------------------------------|---------------------------------------------------------|
| Other areas of industrial activities with potential pollution sources (Figure 4) | There are no additional areas of industrial activities. |
|                                                                                  | <i>IGP Reference: Section X.E3.f</i>                    |

LIST OF SIGNIFICANT MATERIALS (Table 2)

*IGP Reference: Section X.F* The list of significant materials handled at the Facility is provided in Table 2 and includes the location where the materials are stored, received, shipped, and handled. Additionally, the typical quantities on hand and handling frequency are also described.

POTENTIAL POLLUTANT SOURCES (IGP Reference: Section X.G)

|                                                                               |                                                                                                                                                                                                                                                                                                                                       |
|-------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Description of Potential Pollutant Sources and Industrial Processes (Table 3) | Truck bring in compost materials to the Material Recovery Facility Building. Here raw materials are sorted, processed, and bailed before entering the north or south compost areas. Potential pollutants come from the receiving and transferring of raw and processed materials, fueling, washing, and storage of Facility vehicles. |
|                                                                               | <i>IGP Reference: Section X.G.1</i>                                                                                                                                                                                                                                                                                                   |
|                                                                               | <i>IGP Reference: Section X.G.1.a</i>                                                                                                                                                                                                                                                                                                 |

|                      |                                                         |
|----------------------|---------------------------------------------------------|
| Industrial Processes | North & South Compost Area                              |
|                      | <i>IGP References Section X.G.1.a</i>                   |
|                      | Material Recovery Facility Building                     |
|                      | Fueling Station                                         |
|                      | Repair / Maintenance Shops                              |
|                      | Truck Scale & Truck Parking                             |
|                      | Processed Material / Empty Bin / Used Equipment Storage |
|                      | Wash Rack                                               |
|                      | Loading Dock                                            |

|                                       |                                                      |
|---------------------------------------|------------------------------------------------------|
| Authorized non-storm water discharges | No non-storm water discharges occur at the Facility. |
|                                       | <i>IGP Reference: Section X.G.1.e</i>                |

|                                           |                                                                |
|-------------------------------------------|----------------------------------------------------------------|
| Non-authorized non-storm water discharges | There have not been non-authorized non-storm water discharges. |
|                                           | <i>IGP Reference: Section X.G.1.e</i>                          |

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Assessment of Potential Pollutant Sources (Table 3)(IGP Reference: Section X.G.2)

|                                                                                                                                                           |                                                                                                                                                                                                                                                                |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Narrative assessment of potential pollution sources and pollutants likely to be present in storm water discharge<br><i>IGP Reference: Section X.G.2.a</i> | The Facility accepts green waste and municipal recyclables for sorting, processing, packaging, and shipment. Two complex sets of retention/settling/biofiltration reduce the likelihood of pollutants entering storm water from most of the Facility drainage. |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

|                                                                            |                                                              |
|----------------------------------------------------------------------------|--------------------------------------------------------------|
| Identification of additional BMPs<br><i>IGP Reference: Section X.G.2.b</i> | The Facility is undergoing engineering design and expansion. |
|----------------------------------------------------------------------------|--------------------------------------------------------------|

|                                                                                            |       |
|--------------------------------------------------------------------------------------------|-------|
| Identification of drainage areas with no exposure<br><i>IGP Reference: Section X.G.2.c</i> | None. |
|--------------------------------------------------------------------------------------------|-------|

|                                                                                           |                                                                                                                            |
|-------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------|
| Identification of additional parameters required<br><i>IGP Reference: Section X.G.2.d</i> | Additional parameters required for SIC 5093 & 5015 are: Iron (Fe), Lead (Pb), Aluminum (Al), Chemical Oxygen Demand (COD). |
|-------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------|

STORM WATER BMPs (IGP Reference: Section X.H)

|                                                                                                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
|-------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Minimum BMPs<br><i>IGP Reference: Section X.H.1</i><br><br><i>IGP Reference: Footnote 12, Page 30</i> | The Facility has to the extent feasible, implemented and maintained all of the following minimum BMPs to reduce or prevent pollutants in industrial storm water discharges.<br><br><i>"For the purposes of the General Permit, the requirement to implement BMPs "to the extent feasible" requires Dischargers to select, design, install and implement BMPs that reduce or prevent discharges of pollutants in their storm water discharge in a manner that reflects best industry practice considering technological availability and economic practicability and achievability."</i> |
|-------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

Good Housekeeping ( IGP Reference: Section X.H.1.a)

- (IGP Reference: Section X.H.1.a.i) All outdoor areas associated with industrial activity; including storm water discharge locations, drainage areas, conveyance systems, waste handling/disposal areas, and perimeter areas impacted by off-facility materials or storm water run-on have been observed to determine housekeeping needs. Any identified debris, waste, spills, tracked materials, or leaked materials have been cleaned and disposed of properly the extent feasible.
- IGP Reference: Section X.H.1.a.ii* Material tracking has been minimized.
- IGP Reference: Section X.H.1.a.iii* Dust generated from industrial materials and activities have been minimized.

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- IGP Reference: Section X.H.1.a.iv* All Facility areas impacted by rinse/wash waters are cleaned as soon as possible.
- IGP Reference: Section X.H.1.a.v* All stored industrial materials can be readily mobilized by contact with storm water have been covered to the extent feasible.
- IGP Reference: Section X.H.1.a.vi* All stored non-solid industrial materials or wastes (e.g., particulates, powders, shredded paper, etc.) that can be transported or dispersed by the wind or contact with storm water has been contained to the extent feasible.
- IGP Reference: Section X.H.1.a.vii* All rinse/wash waters or industrial materials are prevented from being disposed into the storm water conveyance system to the extent feasible.
- IGP Reference: Section X.H.1.a.viii* Storm water discharges from non-industrial areas (e.g., storm water flows from employee parking area) are prevented to the extent feasible from contact with industrial areas.
- IGP Reference: Section X.H.1.a.ix* Authorized NSWDS from non-industrial areas (e.g., potable water, fire hydrant testing, etc.) are minimized that contact industrial areas of the Facility.

#### Preventative Maintenance (IGP Reference: Section X.H.1.b)

- IGP Reference: Section X.H.1.b.i* All equipment and systems used outdoors that may spill or leak pollutants have been identified.
- IGP Reference: Section X.H.1.b.ii* The identified equipment and systems to detect leaks or identify conditions that may result in the development of leaks has been observed.
- IGP Reference: Section X.H.1.b.iii* An appropriate schedule for maintenance of identified equipment and systems has been established.
- IGP Reference: Section X.H.1.b.iv* Procedures for prompt maintenance and repair of equipment, and maintenance of systems when conditions exist that may result in the development of spills or leaks have been established.

#### Spill Response (Table 5) (IGP Reference: Section X.H.1.c)

- IGP Reference: Section X.H.1.c.i* Procedures and/or controls to minimize spills and leaks have been established.
- IGP Reference: Section X.H.1.c.ii* Spill and leak response procedures have been developed and implemented to prevent industrial materials from discharging through the storm water conveyance system. Spilled or leaked industrial materials are cleaned promptly and disposed of properly.

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*IGP Reference: Section X.H.1.c.iii* All necessary and appropriate spill and leak response equipment, location(s) of spill and leak response equipment, and spill or leak response equipment maintenance procedures have been identified and are described in Table 5.

*IGP Reference: Section X.H.1.c.iv* Appropriate spill and leak response personnel have been identified and trained.

Material Handling and Waste Management (*IGP Reference: Section X.H.1.d*)

*IGP Reference: Section X.H.1.d.i* Handling of industrial materials or wastes that can be readily mobilized by contact with storm water during a storm event is minimized.

*IGP Reference: Section X.H.1.d.ii* All stored non-solid industrial materials or wastes (e.g., particulates, powders, shredded paper, etc.) that can be transported or dispersed by the wind or contact with storm water is contained to the extent feasible.

*IGP Reference: Section X.H.1.d.iii* Industrial waste disposal containers and industrial material storage containers that contain industrial materials are covered when not in use to the extent feasible.

*IGP Reference: Section X.H.1.d.iv* Run-on and storm water generated from within the facility away from all stockpiled materials is diverted to the extent feasible.

*IGP Reference: Section X.H.1.d.v* All spills of industrial materials or wastes that occur during handling are cleaned in accordance with the spill response procedures.

*IGP Reference: Section X.H.1.d.vi* Any outdoor material or waste handling equipment or containers that can be contaminated by contact with industrial materials or wastes is observed and cleaned as appropriate.

Erosion and Sediment Controls (*IGP Reference: Section X.H.1.e*)

*IGP Reference: Section X.H.1.e.i* For each erodible surface Facility location identified, effective wind erosion controls have been implemented to the extent feasible.

*IGP Reference: Section X.H.1.e.ii* For each erodible surface Facility location identified, effective stabilization for inactive areas, finished slopes, and other erodible areas prior to a forecasted storm event has been provided to the extent feasible.

*IGP Reference: Section X.H.1.e.iii* For each erodible surface Facility location identified, effective perimeter controls and stabilize all site entrances and exits are maintained to sufficiently control discharges of erodible materials from discharging or being tracked off the site to the extent feasible.

*IGP Reference: Section X.H.1.e.iv* For each erodible surface Facility location identified, run-on and storm water generated from within the Facility are diverted away from all erodible materials to the extent feasible.

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*IGP Reference: Section X.H.1.e.v* If applicable, compliance with the design storm standards for sediment basins are implemented.

#### Employee Training Program (IGP Reference: Section X.H.1.f)

*IGP Reference: Section X.H.1.f.i* All team members implementing the various compliance activities of the IGP are properly trained to implement the requirements of the IGP, including but not limited to: BMP implementation, BMP effectiveness evaluations, visual observations and monitoring activities.

*IGP Reference: Section X.H.1.f.ii* Appropriate training manuals or training materials will be prepared or acquired.

*IGP Reference: Section X.H.1.f.iii* Personnel requiring training, their responsibilities and the type of training they shall receive have been identified.

*IGP Reference: Section X.H.1.f.iv* A training schedule has been developed.

*IGP Reference: Section X.H.1.f.v* Documentation of all completed training classes and the personnel that received training will be maintained in this SWPPP as Attachment 2.

#### Quality Assurance and Record Keeping (IGP Reference: Section X.H.1.g)

*IGP Reference: Section X.H.1.g.i* Management procedures to ensure that appropriate staff implements all elements of the SWPPP, including the MIP have been developed and implemented.

*IGP Reference: Section X.H.1.g.ii* A method of tracking and recording the implementation of BMPs identified in the SWPPP has been developed.

*IGP Reference: Section X.H.1.g.iii* The BMP implementation records, training records and records related to any spills and cleanup related response activities will be maintained for a minimum of 5 years.

#### Advanced BMPs (IGP Reference: Section X.H.2)

In addition to the minimum BMPs, to the extent feasible, any advanced BMPs identified necessary to reduce or prevent discharges of pollutants in its storm water discharge will be implemented and maintained in a manner that reflects best industry practice considering technological availability and economic practicability and achievability (*IGP Reference: Section X.H.2.a*).

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Exposure Minimization BMPs (IGP Reference: Section X.H.2.b)

*IGP Reference: Section X.H.2.b.i* Storm resistant shelters (permanent or temporary) have been implemented to prevent the contact of storm water with the identified industrial materials or areas of industrial activity to the extent feasible.

Storm Water Containment and Discharge Reduction BMPs (IGP Reference: Section X.H.2.b)

*IGP Reference: Section X.H.2.b.ii* These include BMPs that divert, infiltrate, reuse, contain, retain, or reduce the volume of storm water runoff.

Treatment Control BMPs (IGP Reference: Section X.H.2.b)

*IGP Reference: Section X.H.2.b.iii* This is the implementation of one or more mechanical, chemical, biologic, or any other treatment technology that will meet the treatment design standard.

Other Advanced BMPs (IGP Reference: Section X.H.2.b)

*IGP Reference: Section X.H.2.b.iv* Any additional BMPs not described in subsections b.i through iii above that are necessary to meet the effluent limitations of this General Permit.

BMP Descriptions (TABLE 4)(IGP Reference: Section X.H.4)

*IGP Reference: (Sections X.H.4.a.i thru vi)* BMP locations; targeted pollutants; BMP maintenance schedule and procedures; tools and assigned responsibility are presented in Table 4.

*IGP Reference: (Section X.H.4.a.vii)* Some BMPs may require more frequent visual observations beyond the monthly visual observations and are inspected accordingly.

*IGP Reference: (Section X.H.4.b)* When applicable, each minimum BMP or applicable advanced BMP not being implemented at the facility because they do not reflect best industry practice considering technological availability and economic practicability and achievability will be identified and justified.

*IGP Reference: (Section X.H.4.c)* When applicable, any BMPs described in subsection a above that are implemented in lieu of any of the minimum or applicable advanced BMPs will be identified.

BMP Summary Table (Table 4) (IGP Reference: Section X.H.5)

A table summarizing each identified area of industrial activity, the associated industrial pollutant sources, the industrial pollutants, and the BMPs being implemented is provided in Table 4.



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SWPPP Revisions (IGP Reference X.B)+340:340

The on-site SWPPP will be revised whenever deemed necessary and the revision will be documented in the SWPPP Revision Log (Appendix 4). For revisions determined not to be significant, the SWPPP only needs to be certified and uploaded to SMARTS not more than once every three month. Significant revisions will be documented in the SWPPP Revision Log, certified and uploaded to SMARTS within 30 days of the significant revision.

## TABLES

**TABLE 1**  
**POLLUTION PREVENTION TEAM**  
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| Position                             | Name                                               | Responsibilities, Duties and Activities                                                                                               | Alternative         |
|--------------------------------------|----------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------|---------------------|
| Legally Responsible Person (LRP)     | Greg Kelley<br>General Manager                     | Certifies and submits PRDs to SMARTS. Assigns DAR via SMARTS.                                                                         | Not applicable      |
| Duly Authorized Representative (DAR) | Will Kelley<br>Project Manager                     | Certifies and submits reports, certifications and records to SMARTS.                                                                  | Not applicable      |
| Data Submitter                       | Will Kelley<br>Project Manager                     | Submits data to DAR for certification.                                                                                                | Not applicable      |
| Data Submitter                       | Frog Representative<br>Frog Environmental, Inc.    | Submits data to DAR for certification.                                                                                                | Not applicable      |
| SWPP Team Leader                     | Will Kelley<br>PM                                  | Oversees all SWPPP activities; ensures MIP is properly implemented.                                                                   | Compost Foreman     |
| SWPP Team Assistant Leader           | Will Cook<br>Compost Foreman                       | Assists SWPP Team Leader; performs MIP activities including sample collection, inspections and documentation; installs, maintains and | Project Manager     |
| SWPP Advisor                         | Frog Project Manager<br>Frog Environmental, Inc.   | Advises LRP, DAR, SWPP Team Leaders. Provides training. Evaluates BMPs.                                                               | Frog Representative |
| SWPP Team Members                    | All of Napa City Material Waste Recovery Employees | Performs, implements, maintains, inspects, evaluates, repairs BMPs. Prevents pollution. Conducts spill prevention.                    | Not applicable      |

**TABLE 2**  
**LIST OF INDUSTRIAL MATERIALS**  
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| Material            | Storage, Handling & Shipping/Receiving Location | Quantity       | Handling Frequency | Additional Remarks                       |
|---------------------|-------------------------------------------------|----------------|--------------------|------------------------------------------|
| Fuel                | Outdoors northeast of the MRF                   | <2,500 gallons | Daily              | Partitioned tank for diesel and gasoline |
| Solvents            | MRF Repair shop                                 | <100 gallons   | Daily              | paints, thinners, solvents               |
| Detergents          | Used with steam cleaning equipment              | <300 gallons   | Daily              | Daily use, annual quantity               |
| Oils and lubricants | For Facility vehicles                           | <4,000 gallons | Daily              | Daily use, annual quantity               |
| Coolant             | For Facility vehicles                           | <150 gallons   | Daily              | Daily use, annual quantity               |
| Cardboard           | Bulk and processed materials                    | <2,000 tons    | Daily              | Daily use, annual quantity               |
| Metals              | Bulk and processed materials                    | <220 tons      | Daily              | Daily use, annual quantity               |
| Paper               | Bulk and processed materials                    | <2,200 tons    | Daily              | Daily use, annual quantity               |
| Plastic             | Bulk and processed materials                    | <150 tons      | Daily              | Daily use, annual quantity               |
| Glass               | Bulk and processed materials                    | <1,500 tons    | Daily              | Daily use, annual quantity               |
| Green waste         | Bulk and processed materials                    | See Use Permit | Daily              |                                          |
| Compost             | Bulk and processed materials                    | See Use Permit | Daily              | Various stages of processing             |
| Waste oil           | Used oils and lubricants                        | <1,000 gallons | Daily              | Hauled off by contractor                 |
| Used Batteries      | Temporarily stored                              | Not available  | Daily              | Hauled off by contractor                 |
| Waste coolant       | Used coolant                                    | <500 gallons   | Daily              | Hauled off by contractor                 |

**TABLE 3**  
**POTENTIAL POLLUTANT SOURCES AND GENERAL ASSESSMENT**  
NAPA CITY MATERIAL WASTE RECOVERY

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**INDUSTRIAL ACTIVITIES**

| Potential Pollutant Sources                           | Type & Likely Sources                | Description & Characteristics                | Indicator Pollutants              | Location                                  | Containment Structures & Capacity     | Degree of Exposure | Minimum & Advanced BMPs                                    | Minimum BMP Evaluation | Estimated Minimum BMP Effectiveness |
|-------------------------------------------------------|--------------------------------------|----------------------------------------------|-----------------------------------|-------------------------------------------|---------------------------------------|--------------------|------------------------------------------------------------|------------------------|-------------------------------------|
| Settling / Retention Ponds (P4 & P5)                  | Spills & leaks                       | Stormwater containment & treatment           | TSS, O&G, pH, Fe, Al, Pb, Zn, COD | Compost North Storm Water Treatment       | Large berms and dedicated conveyances | 100%               | QA&RK, ETP, GHK, PM, MH&WM, SLPR, EM; Advanced BMP: SWC&DR | Performed              | Sufficient                          |
| Windrows                                              | Migration and tracking               | Compost contact water                        | TSS, O&G, pH, Fe, Al, Pb, Zn, COD | Compost Area North & South                | Outdoors                              | 100%               | QA&RK, ETP, GHK, PM, MH&WM, SLPR, EM; Advanced BMP: SWC&DR | Performed              | Sufficient                          |
| Empty Bin Storage                                     | Tracking                             | Empty material bins temporarily staged       | TSS, O&G, pH, Fe, Al, Pb, Zn, COD | Northeast Yard                            | Outdoors                              | 50%                | QA&RK, ETP, GHK, PM, MH&WM, SLPR, EM                       | Performed              | Sufficient                          |
| Used Equipment Storage                                | Spills & leaks                       | Excess equipment and materials               | TSS, O&G, pH, Fe, Al, Pb, Zn, COD | Northeast Yard                            | Outdoors                              | 50%                | QA&RK, ETP, GHK, PM, MH&WM, SLPR, EM                       | Performed              | Sufficient                          |
| Settling, retention and biofiltration ponds (P1 - P3) | Spills & leaks                       | Stormwater containment & treatment           | TSS, O&G, pH, Fe, Al, Pb, Zn, COD | MRF / Compost South Storm Water Treatment | Large berms and dedicated conveyances | 100%               | QA&RK, ETP, GHK, PM, MH&WM, SLPR, EM; Advanced BMP: SWC&DR | Performed              | Sufficient                          |
| Material Receiving Area                               | Tracking, migration, spills & leaks  | Bulk green waste                             | TSS, O&G, pH, Fe, Al, Pb, Zn, COD | Compost Area South                        | In/outdoors                           | 70%                | QA&RK, ETP, GHK, PM, MH&WM, SLPR, EM; Advanced BMP: SWC&DR | Performed              | Sufficient                          |
| Material Sorting                                      | Tracking, migrations, spills & leaks | Removal of contamination                     | TSS, O&G, pH, Fe, Al, Pb, Zn, COD | Compost Area South                        | In/outdoors                           | 70%                | QA&RK, ETP, GHK, PM, MH&WM, SLPR, EM; Advanced BMP: SWC&DR | Performed              | Sufficient                          |
| Repair / Maintenance Shop                             | Spills & leaks                       | Vehicle and equipment repair and maintenance | TSS, O&G, pH, Fe, Al, Pb, Zn, COD | Compost Area South                        | Indoors                               | 10%                | QA&RK, ETP, GHK, PM, MH&WM, SLPR, EM; Advanced BMP: SWC&DR | Performed              | Sufficient                          |
| Loading                                               | Tracking, migration, spills & leaks  | Processed material shipment                  | TSS, O&G, pH, Fe, Al, Pb, Zn, COD | Compost Area South                        | Outdoors                              | 100%               | QA&RK, ETP, GHK, PM, MH&WM, SLPR, EM; Advanced BMP: SWC&DR | Performed              | Sufficient                          |

**TABLE 3**  
**POTENTIAL POLLUTANT SOURCES AND GENERAL ASSESSMENT**  
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|                                       |                                     |                                                  |                                   |                                     |                                           |      |                                                            |           |            |
|---------------------------------------|-------------------------------------|--------------------------------------------------|-----------------------------------|-------------------------------------|-------------------------------------------|------|------------------------------------------------------------|-----------|------------|
| Amendment Stockpiles                  | Migration and tracking              | Bulk material additives                          | TSS, O&G, pH, Fe, Al, Pb, Zn, COD | Compost Area South                  | Outdoors                                  | 100% | QA&RK, ETP, GHK, PM, MH&WM, SLPR, EM; Advanced BMP: SWC&DR | Performed | Sufficient |
| Wash Rack                             | Tracking, migration, spills & leaks | Vehicle and equipment cleaning                   | TSS, O&G, pH, Fe, Al, Pb, Zn, COD | Material Recovery Facility Building | Canopy, Concrete Berm, Sump               | 10%  | QA&RK, ETP, GHK, PM, MH&WM, SLPR, EM; Advanced BMP: SWC&DR | Performed | Sufficient |
| Truck Scale                           | Spills & leaks                      | Material weighing                                | TSS, O&G, pH, Fe, Al, Pb, Zn, COD | Material Recovery Facility Building | Outdoors                                  | 20%  | QA&RK, ETP, GHK, PM, MH&WM, SLPR, EM; Advanced BMP: SWC&DR | Performed | Sufficient |
| Fueling                               | Spills & leaks                      | Dispensing and transfer of diesel and gasoline   | TSS, O&G, pH, Fe, Al, Pb, Zn, COD | Material Recovery Facility Building | Double walled tanks and containment berms | 40%  | QA&RK, ETP, GHK, PM, MH&WM, SLPR, EM; Advanced BMP: SWC&DR | Performed | Sufficient |
| Waste Oil Tanks                       | Spills & leaks                      | Temporarily collection and storage of waste oils | TSS, O&G, pH, Fe, Al, Pb, Zn, COD | Material Recovery Facility Building | Double walled tanks and containment berms | 40%  | QA&RK, ETP, GHK, PM, MH&WM, SLPR, EM; Advanced BMP: SWC&DR | Performed | Sufficient |
| Loading Dock                          | Spills & leaks                      | Material shipping                                | TSS, O&G, pH, Fe, Al, Pb, Zn, COD | Material Recovery Facility Building | Outdoors                                  | 40%  | QA&RK, ETP, GHK, PM, MH&WM, SLPR, EM; Advanced BMP: SWC&DR | Performed | Sufficient |
| Material Sorting, Processing, Bailing | Tracking, migration, spills & leaks | Material recovery and processing activities      | TSS, O&G, pH, Fe, Al, Pb, Zn, COD | Material Recovery Facility Building | In/outdoors                               | 20%  | QA&RK, ETP, GHK, PM, MH&WM, SLPR, EM; Advanced BMP: SWC&DR | Performed | Sufficient |

**TABLE 3**  
**POTENTIAL POLLUTANT SOURCES AND GENERAL ASSESSMENT**  
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| <b>INDUSTRIAL ACTIVITIES</b> |                                     |                                                     |                                   |                                     |                                   |                    |                                                            |                        |                                     |
|------------------------------|-------------------------------------|-----------------------------------------------------|-----------------------------------|-------------------------------------|-----------------------------------|--------------------|------------------------------------------------------------|------------------------|-------------------------------------|
| Potential Pollutant Sources  | Type & Likely Sources               | Description & Characteristics                       | Indicator Pollutants              | Location                            | Containment Structures & Capacity | Degree of Exposure | Minimum & Advanced BMPs                                    | Minimum BMP Evaluation | Estimated Minimum BMP Effectiveness |
| Maintenance & Repair Shop    | Spills & leaks                      | Vehicle and equipment repair and maintenance        | TSS, O&G, pH, Fe, Al, Pb, Zn, COD | Material Recovery Facility Building | Indoors                           | 10%                | QA&RK, ETP, GHK, PM, MH&WM, SLPR, EM; Advanced BMP: SWC&DR | Performed              | Sufficient                          |
| HAZMAT                       | Spills & leaks                      | Minimal quantities of onhand or recovered materials | TSS, O&G, pH, Fe, Al, Pb, Zn, COD | Material Recovery Facility Building | Indoors                           | 10%                | QA&RK, ETP, GHK, PM, MH&WM, SLPR, EM; Advanced BMP: SWC&DR | Performed              | Sufficient                          |
| Truck Parking                | Spills & leaks                      | Facility truck staging area                         | TSS, O&G, pH, Fe, Al, Pb, Zn, COD | Material Recovery Facility Building | Outdoors                          | 40%                | QA&RK, ETP, GHK, PM, MH&WM, SLPR, EM                       | Performed              | Sufficient                          |
| Processed Material Storage   | Tracking, migration, spills & leaks | Bailed or packaged material ready for shipment      | TSS, O&G, pH, Fe, Al, Pb, Zn, COD | Material Recovery Facility Building | Outdoors                          | 60%                | QA&RK, ETP, GHK, PM, MH&WM, SLPR, EM                       | Performed              | Sufficient                          |
| Material Receiving           | Tracking, migration, spills & leaks | Bulk combined municipal recyclables                 | TSS, O&G, pH, Fe, Al, Pb, Zn, COD | Material Recovery Facility Building | Indoors                           | 20%                | QA&RK, ETP, GHK, PM, MH&WM, SLPR, EM; Advanced BMP: SWC&DR | Performed              | Sufficient                          |

**TABLE 3**  
**POTENTIAL POLLUTANT SOURCES AND GENERAL ASSESSMENT**  
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| DUST AND PARTICULATES        |                                    |                       |                      |          |                        |                    |             |                        |                           |
|------------------------------|------------------------------------|-----------------------|----------------------|----------|------------------------|--------------------|-------------|------------------------|---------------------------|
| Potential Pollutant Sources  | Description of Industrial Activity | Associated Pollutants | Indicator Pollutants | Location | Containment Structures | Degree of Exposure | Minimum BMP | Minimum BMP Evaluation | Minimum BMP Effectiveness |
| Not applicable               |                                    |                       |                      |          |                        |                    |             |                        |                           |
| SIGNIFICANT SPILLS AND LEAKS |                                    |                       |                      |          |                        |                    |             |                        |                           |
| Potential Pollutant Sources  | Description of Industrial Activity | Associated Pollutants | Indicator Pollutants | Location | Containment Structures | Degree of Exposure | Minimum BMP | Minimum BMP Evaluation | Minimum BMP Effectiveness |
| Not applicable               |                                    |                       |                      |          |                        |                    |             |                        |                           |
| NON-STORM WATER DISCHARGES   |                                    |                       |                      |          |                        |                    |             |                        |                           |
| Potential Pollutant Sources  | Description of Industrial Activity | Associated Pollutants | Indicator Pollutants | Location | Containment Structures | Degree of Exposure | Minimum BMP | Minimum BMP Evaluation | Minimum BMP Effectiveness |
| Not applicable               |                                    |                       |                      |          |                        |                    |             |                        |                           |

Notes:

GHK: Good housekeeping

PM: Preventative Maintenance

MH&WM: Material handling and waste management

EM: Exposure minimization

SLPR: Spill and Leak Prevention and Response

ETP: Employee Training Program

QA&RK: Quality Assurance and Recordkeeping

ESC: Erosion and Sediment Control

SWC&DR: Storm Water Containment and Discharge Reduction



**TABLE 4**  
**BMP SUMMARY TABLE AND DESCRIPTIONS**  
 NAPA CITY MATERIAL WASTE RECOVERY  
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| Implemented BMPs                     | Targeted Industrial Pollutants      | Associated Pollutant Sources | Industrial Activity Location | BMP Implementation Schedule |                        |            | Assigned Responsibility | Maintenance Procedures                          | Equipment & Tools Needed |
|--------------------------------------|-------------------------------------|------------------------------|------------------------------|-----------------------------|------------------------|------------|-------------------------|-------------------------------------------------|--------------------------|
|                                      |                                     |                              |                              | Frequency                   | Time of Day            | Conditions |                         |                                                 |                          |
| MINIMUM                              |                                     |                              |                              |                             |                        |            |                         |                                                 |                          |
| Good Housekeeping                    | Facility fluids & debris            | Operations                   | Throughout Facility          | Daily                       | During operating hours | All        | General Manager & staff | -                                               | Hand tools               |
| Material Handling                    | Debris and residues                 | Operations                   | Throughout Facility          | Daily                       | During operating hours | All        | General Manager & staff | -                                               | -                        |
| Waste Management                     | Facility fluids & debris            | Operations                   | Throughout Facility          | Daily                       | During operating hours | All        | General Manager & staff | Temporarily stored and hauled off by contractor |                          |
| Preventive Maintenance               | Mobile and process equipment        | Operations                   | All equipment areas          | Daily                       | During operating hours | All        | General Manager & staff | Equipment O&M Manuals                           |                          |
| Exposure Minimization                | Facility fluids & debris            | Operations                   | All outside areas            | Daily                       | During operating hours | Wet        | General Manager & staff | -                                               | -                        |
| Spill & Leak Prevention and Response | Stationary and mobile equipment     | Operations                   | All equipment areas          | Daily                       | During operating hours | All        | General Manager & staff | Equipment O&M Manuals                           | Spill kits               |
| Employee Training Program            | Materials, Facility fluids & debris | Operations                   | Throughout Facility          | Daily                       | During operating hours | All        | General Manager & staff | -                                               | -                        |
| Quality Assurance & Recordkeeping    | Materials, Facility fluids & debris | Operations                   | Throughout Facility          | Daily                       | During operating hours | All        | General Manager & staff | -                                               | -                        |

**TABLE 4**  
**BMP SUMMARY TABLE AND DESCRIPTIONS**  
 NAPA CITY MATERIAL WASTE RECOVERY  
 Storm Water Pollution Prevention Plan  
 820 Levitin Way, Napa, California

|                                                 |                                  |            |                   |       |                        |     |                         |                                |            |
|-------------------------------------------------|----------------------------------|------------|-------------------|-------|------------------------|-----|-------------------------|--------------------------------|------------|
| Moisture Control                                | Yard waste, Composting materials | Operations | Wash Rack         | Daily | During operating hours | All | General Manager & staff | Water captured in sump and re- | Sump, Tank |
| ADVANCED                                        |                                  |            |                   |       |                        |     |                         |                                |            |
| Storm Water Containment and Discharge Reduction | Facility storm water             | Operations | All outside areas | Daily | During operating hours | All | General Manager & staff | Oversight & operations         | -          |

Three stage pond settling, retention and biofiltration system serves compost and MRF operations. Two stage pond settling and biofiltration system serves North Compost Area. Specific details of pond system is found in attachment to this SWPPP.

**TABLE 5**  
**SPILL AND LEAK PREVENTION AND RESPONSE**  
 NAPA CITY MATERIAL WASTE RECOVERY  
 Storm Water Pollution Prevention Plan  
 820 Levitin Way, Napa, California

| Response Equipment | Location                                  | Maintenance Procedures                                |
|--------------------|-------------------------------------------|-------------------------------------------------------|
| Absorbents         | With Spill Kits                           | Inspect inventory monthly and replenish as necessary. |
| Spill Kits         | At multiple locations within the Facility | Inspect inventory monthly and replenish as necessary. |
|                    |                                           |                                                       |
|                    |                                           |                                                       |
|                    |                                           |                                                       |
|                    |                                           |                                                       |
|                    |                                           |                                                       |
|                    |                                           |                                                       |
|                    |                                           |                                                       |

**TABLE 6**  
**SAMPLING REQUIREMENTS - BASELINE STATUS**  
 NAPA CITY MATERIAL WASTE RECOVERY  
 Storm Water Pollution Prevention Plan  
 820 Levitin Way, Napa, California

| Parameter   | Type             | Test Method        | Reporting Units | Annual NAL | Instantaneous Maximum NAL | Comments |
|-------------|------------------|--------------------|-----------------|------------|---------------------------|----------|
| pH          | Basic            | Field <sup>1</sup> | pH units        | N/A        | <6.0 or >9.0              |          |
| TSS         | Basic            | Lab: SM2540D       | mg/l            | 100        | 400                       |          |
| O&G (Total) | Basic            | Lab: EPA1664A      | mg/l            | 15         | 25                        |          |
| Fe          | SICs 2875 & 5093 | EPA 200.7          | mg/l            | 1.0        | NA                        |          |
| Pb          | SICs 2875 & 5093 | EPA 200.8          | mg/l            | 0.262**    | NA                        |          |
| Al          | SIC 5093         | EPA 200.8          | mg/l            | 0.75       | NA                        |          |
| Zn          | SICs 2875 & 5093 | EPA 200.8          | mg/l            | 0.26**     | NA                        |          |
| P           | SIC 2875         | SM4500-P B+E       | mg/l            | 2.0        | NA                        |          |
| N+N         | SCI 2875         | SM4500-NO3-E       | mg/l            | 0.68       | NA                        |          |
| COD         | SIC 5093         | SM 5220C           | mg/l            | 120        | NA                        |          |

**Notes:**

Note 1: For Baseline Status, the Facility can use wide range litmus paper or other screening pH test kits. pH screening must be performed with 15 minutes of sample collection (*IGP Reference: X.C.2*).

\*\*The NAL is the highest value used by the U.S. EPA Based on their hardness table in the 2008 MSGP

TSS: Total Suspended Solids      Al: Total Aluminum

**TABLE 6**  
**SAMPLING REQUIREMENTS - BASELINE STATUS**  
NAPA CITY MATERIAL WASTE RECOVERY  
Storm Water Pollution Prevention Plan  
820 Levitin Way, Napa, California

O&G: Oil and Grease

Fe: Total Iron

Pb: Total Lead

Zn: Total Zinc

COD: Chemical Oxygen Demand

N+N: Nitrate and Nitrite Nitrogen

P: Total Phosphorus

## FIGURES



SWPPP MAP  
NAPA RECYCLING & WASTES SERVICES  
820 LEVITN WAY  
NAPA, CALIFORNIA

VICINITY MAP  
FIGURE  
1

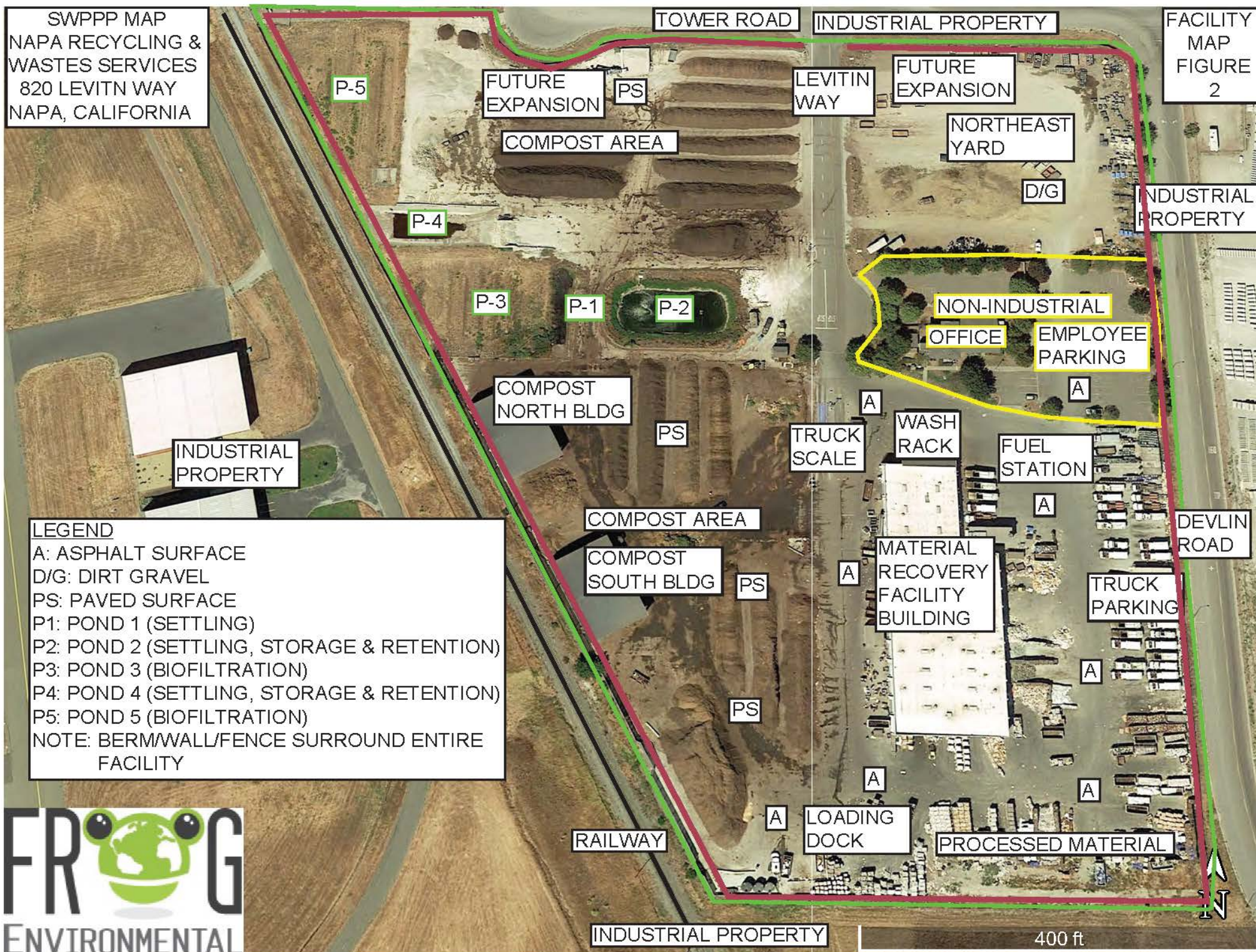




SWPPP MAP  
NAPA RECYCLING &  
WASTES SERVICES  
820 LEVITN WAY  
NAPA, CALIFORNIA

FACILITY  
MAP  
FIGURE  
2

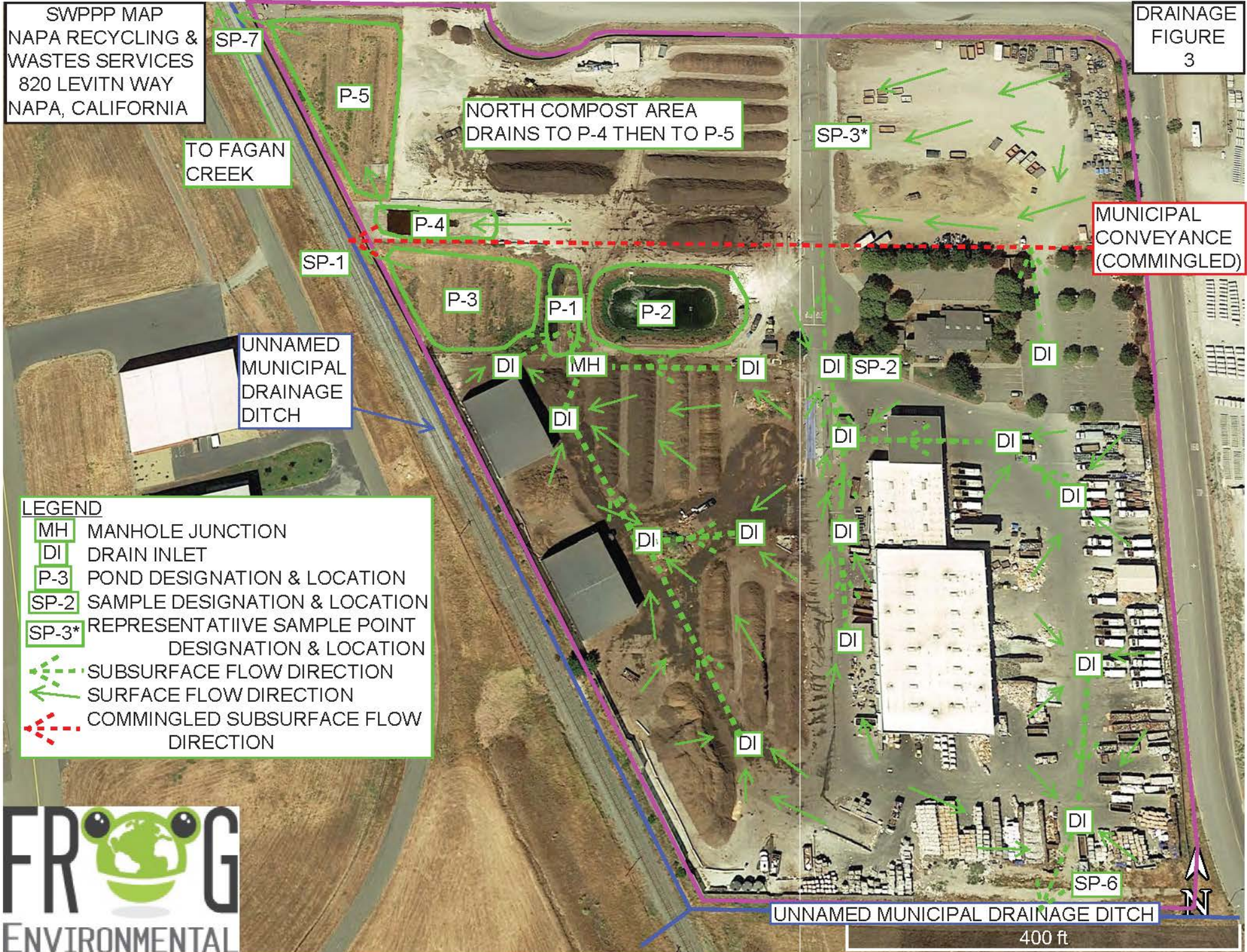
**LEGEND**  
A: ASPHALT SURFACE  
D/G: DIRT GRAVEL  
PS: PAVED SURFACE  
P1: POND 1 (SETTLING)  
P2: POND 2 (SETTLING, STORAGE & RETENTION)  
P3: POND 3 (BIOFILTRATION)  
P4: POND 4 (SETTLING, STORAGE & RETENTION)  
P5: POND 5 (BIOFILTRATION)  
NOTE: BERM/WALL/FENCE SURROUND ENTIRE  
FACILITY





SWPPP MAP  
NAPA RECYCLING &  
WASTES SERVICES  
820 LEVITN WAY  
NAPA, CALIFORNIA

DRAINAGE  
FIGURE  
3





SWPPP MAP  
NAPA RECYCLING &  
WASTES SERVICES  
820 LEVITN WAY  
NAPA, CALIFORNIA

COMPOST NORTH SW TREATMENT  
1. SETTLING/RETENTION POND (P4)  
2. BIOFILTRATION POND (P5)

COMPOST AREA NORTH  
1. WINDROWS (O)

MRF/COMPOST SOUTH SW TREATMENT  
1. SETTLING POND (P1)  
2. RETENTION POND (P2)  
3. BIOFILTRATION POND (P3)

LEGEND  
I: INDOORS  
O: OUTDOORS  
SW: STORM WATER

COMPOST AREA SOUTH  
1. MATERIAL RECEIVING AREA (O)  
2. MATERIAL SORTING (O)  
3. WINDROWS (O)  
4. REPAIR/MAINTENANCE SHOP (I)  
5. LOADING (O)  
6. AMENDMENT STOCKPILES (O)

NORTHEAST YARD  
1. EMPTY BIN STORAGE  
2. USED EQUIPMENT STORAGE

NON-INDUSTRIAL

MATERIAL RECOVERY FACILITY BUILDING  
1. WASH RACK (CANOPY & CONCRETE BERM)  
CONNECTED TO SANITARY SYSTEM  
2. TRUCK SCALE  
3. FUELING (O): AGT DOUBLE CONTAINED  
DIESEL & GASOLINE PARTITIONED TANK  
4. WASTE OIL TANK (I): 1,000-GAL CONVAULT  
5. LOADING DOCK (O): RAMP FOR LOADING  
BAILED MATERIALS  
6. MATERIAL SORTING/PROCESSING/BAILING (I)  
7. MAINTENANCE & REPAIR SHOP (I)  
8. HAZMAT (I)  
9. TRUCK PARKING (O)  
10. PROCESSED MATERIAL STORAGE (O)  
11. MATERIAL RECEIVING (I)

POTENTIAL  
POLLUTION  
AREAS  
FIGURE  
4



400 ft



## MITIGATED NEGATIVE DECLARATION

|                       |                                                                    |                     |                                  |
|-----------------------|--------------------------------------------------------------------|---------------------|----------------------------------|
| <b>PROJECT NAME:</b>  | <b>Napa Renewable Resources Project (NRRP)</b>                     | <b>FILE NUMBER:</b> | PL12-0022                        |
| <b>SITE ADDRESS:</b>  | 820 Levitin Way                                                    | <b>APNs:</b>        | 57-110-49, 52,<br>65, 66, 67, 68 |
| <b>GENERAL PLAN:</b>  | Public Serving (PS)                                                |                     |                                  |
| <b>ZONING:</b>        | Public/Quasi-Public (PQ)                                           |                     |                                  |
| <b>APPLICANT:</b>     | City of Napa<br>1600 First Street – P.O. Box 660<br>Napa, CA 94559 | <b>PHONE:</b>       | 707.257.9530                     |
| <b>STAFF MANAGER:</b> | Kevin Eberle, Senior Planner                                       | <b>PHONE:</b>       | 707.257.9357                     |

### PROJECT SUMMARY:

The City of Napa is proposing a number of improvements at its existing Materials Diversion Facility (MDF) which is located in south Napa County at 802 Levitin Way. The MDF receives and processes all residential and commercial source-separated recyclables and yard waste generated within the City and collected by the City's authorized operator Napa Recycling and Waste Services. The MDF also receives and processes materials delivered by haulers servicing surrounding jurisdictions (such as unincorporated Napa County) and by private (self-haul) customers.

The Napa MDF is a fully permitted Solid Waste Facility that is inspected monthly by the County. Napa MDF was developed in the early nineties to answer the call of the California Integrated Waste Management Act of 1989 (AB 939) to divert 50% of the waste stream from disposal by 2000, which has been surpassed. The city of Napa has been highly successful since purchasing the MDF in 2004 which includes the Material Recovery Facility (MRF) and a composting facility. The MRF is permitted to process up to 360 tons per day of recyclables and the Compost Facility is permitted to accept 200 tons per day of yard waste and wood waste. A 200 tons per day green waste chipping and grinding operations and a food material compost operation and are also located on-site. Napa is now poised to add the Napa Renewable Resources Project (NRRP) to the Napa MDF; expanding its sustainability efforts from being the community recycling and compost facility, into a self-sufficient renewable energy resource recovery park to meet the measures of AB 32 and the California Global Warming Solutions Act of 2006, and AB 341. AB 32 resulted in the adoption of the AB 32 Scoping Plan in 2008 that included a series of measures adopted by the California Air Resources Board (CARB) for High Recycling/Zero Waste, which will affect the solid waste and recycling sector and local government. The key measures of AB 32 include generating 33% renewable energy by 2020, producing low carbon fuel, implementing mandated commercial recycling programs, developing anaerobic digestion facilities, and increasing the use of compost. As a result of the AB 32 Scoping Plan, AB 341 was adopted in 2011 to specially address mandated commercial recycling and develop a plan to reduce, recycle or compost 75% of the statewide waste materials by 2020. The City of Napa recognizes the statewide goal of a 75% diversion rate by 2020, and has adopted a similar goal to divert 75% of the City's waste by 2020.

### CURRENT OPERATIONS:

The existing MDF site comprises approximately 18.6 acres, of which approximately 12 acres are used for organic material management operations such as composting and chip and grind; 2.2 acres for soil stockpiling; 1.2 acres for concrete recycling; 1.2 acres for material recovery facility (MRF); and about 2.0 acres for support operations. Existing improvements on the site include a materials recycling building, administration office, scale house, outdoor composting area, outdoor finished compost storage area, outdoor soils stockpile area, and outdoor concrete recycling area. The organic material management operation includes a feedstock receiving area, wood grinding, windrow composting, outdoor storage of finished compost, two 10,000-square-foot structures, research composting operation, and wastewater treatment system. The facility has a permanent universal waste drop-off facility as well. The layout of existing facilities is shown in Attachment 3.

Current operations on the project site include receiving, storing, processing, recycling, and composting waste materials from the residential, commercial, and industrial sectors. Permitted hours of operations are the receipt of commercial vehicles from 5 am to 5 pm; public vehicles from 8 am to 5 pm, mixed municipal waste processing operations from 6 am to 6 pm, composting operations from 8 am to 5 pm, recyclable processing operations 24 hours per day, Monday through Sunday. A total of 760 tons per day of waste materials can be accepted under their current permit from a combined 382 vehicles per day. A detailed summary of the existing on-site facilities and their individual operations is provided below:



#### Material Recovery Facility:

The MRF is a recycling facility that sorts and processes a variety of mixed recyclables materials including newspapers, cardboard, junk mail, magazines, containers, glass, plastic, aluminum, and a series of other recyclable materials as markets emerge. Material is dumped onto the tipping floor of an enclosed facility and then pushed onto a conveyor hopper, where it follows along a series of sorting belts and screens. The processing equipment and manual labor separates them materials, after which it is stored in bunkers or containers. and baled daily for storage and transportation. The residual material is transferred to a permitted landfill. The Facility also processes source-separated construction and demolition materials on an outdoor pad area. This facility can operated up to 24 hours per, seven days per week, and has a permitted capacity of 360 tons per day operating under Solid Waste Facility Permit No. 28-AA-0030

The MRF currently sorts and processes 40,000 tons of recyclables per year, and processes over 30,000 tons of source-separated construction and demolition materials to manage an average of 269 TPD where up to 360 TPD is the permitted capacity as shown in Table 1 below. The MRF has capacity to process additional materials as mandated commercial recycling is fully phased in by 2020.

**Table 1 – Current Operations and Permitted Capacity of the Material Recovery Facility**

| Material Type                                 | Material Diversion Facility |                         | Total                              |
|-----------------------------------------------|-----------------------------|-------------------------|------------------------------------|
|                                               | Recyclables                 | Source-separated<br>C&D |                                    |
| Actual Processing –<br>Tons Per Year (TPY)    | 40,000                      | 30,000                  | 70,000 TPY                         |
| Total - Tons Per Day (M-F)<br>inbound average | 154 TPD ave                 | 115 TPD ave             | 269 TPD ave.<br><br>360 TPD permit |

#### Composting Facility:

The compost facility accepts processed yard waste and green waste materials where the materials are placed into open windrows on an all weather outdoor pad where the material is turned by a windrow turner for a period of up to 90 days where there is a minimum of 5 turns in a 15 days period for pathogen reduction. The compost materials are screened and blended to meet market specifications, and the compost is used throughout the County in the vineyards and the surrounding regions as landscape materials. This facility can operate from 8 am to 5 pm, seven days per week, and has a permitted capacity of 200 tons per day operating under Solid Waste Facility Permit No. 28-AA-0023.

The Compost Facility currently manages 42,000 tons of yard waste annually, or 161 TPD average (with a permit capacity of 72,000 tons per year for composting).

#### Green Waste Chipping and Grinding Facility:

The facility accepts yard waste, green waste, and wood waste materials for processing. The material is dumped on a concrete outdoor tipping pad, load-checked for contamination, and then loaded into a grinder for processing. The wood waste is processed into wood chips to be delivered to off-site biomass energy facilities to produce renewable power. Green waste is processed into mulches and compost feedstock for the on-site compost facility. This facility can operate up 8 am to 5 pm, seven days per week, and has a permitted capacity of 200 tons per day operating under Enforcement Agency Notification No. 28-AA-0039.

#### Food Waste Composting Research Operations:

Limited amounts of food waste and green materials are collected at special events as a pilot program. The material is delivered to dedicated windrows at the compost facility to monitor the composting process following the standard operations under Enforcement Agency Notification No. 28-AA-0030. This pilot program has delivered results that food waste can be co-collected with green waste and be composted on-site and produce a quality compost product, where the research provides validation that the program should be expanded.

#### **Previous Approvals**

The City and the operator, Napa Recycling and Waste Services (NRWS) maintain many local and state permits for the MDF site: The County of Napa approved Use Permit U-90-2, and certified a Negative Declaration in 1991, which has been modified several times over the years; February 9, 1994 (93248-MOD), September 16, 1994 (93530-MOD), April 16, 1995 (94129-MOD), March 20, 1996 (95172-MOD), and September 5, 1997 (96468-MOD), and with each Use Permit Modification, a Negative Declaration was certified. Pursuant to Section 15150 of the California Environmental Quality

Act, the Negative Declarations that were prepared for each of the existing modification of the facility are incorporated into this Initial Study by reference and listed below:

- Negative Declaration for Use Permit #U-90-29: Establishment of recyclable material transfer facility, yard waste recycling facility, administrative offices, and truck storage administrative maintenance. (2/20/91)
- Negative Declaration for Solid Waste Facility Permit #SWF-009 (10/2/92) SCH #92033087
- Negative Declaration for Use Permit Modification #93530-MOD: Installation of surface runoff retention and filtration ponds (9/16/94) SCH #94073045
- Negative Declaration for Use Permit Modification #94129-MOD. (8/9/95) SCH #95023019
- Negative Declaration for Use Permit Modification #95172-MOD (3/28/96)

The Facility has obtained the following permits:

- General Permit for Storm water Discharges Associated with Industrial Activity , Waste Discharge Identification (WDID) Number 2 28I020443, State Water Resources Control Board (State Water Board)
- Order No. 96-098, Conditional Waiver of Waste Discharge Requirements (WDR) for Composting Operations, California Regional Water Quality Control Board, San Francisco Bay Region (Water Board)
- Permit to Operate Plant #17403, Bay Area Air Quality Management District (BAAQMD)
- Napa County Agricultural Commissioner/California Department of Food and Agriculture (CDFA)/United States Department of Agriculture (USDA) Compliance Agreement No. 28-03-SOD-010 – *Phytophthora* Quarantine

## PROPOSED PROJECT

The proposed Project consists of a Use Permit to be issued by the City of Napa for the operational changes and new technologies at Napa MDF for the "Napa Renewable Resources Project" However, many of the key aspects of the project will not change:

- The property boundary and the permitted area will remain the same.
- The permitted maximum daily tonnage amount will not increase.
- The permitted maximum daily traffic amount will not increase.

The following items will change:

- Food waste and co-collected food waste will be received at the Facility.
- The hours of operations will change for the compost facility as the newer compost technologies 24 hour operations to operate the blowers in the aerated static pile system and the mechanics of the anaerobic digestion system.
- Storage will be changed to accommodate the biomass gasification plant.
- The operational changes and technologies will be phased in over time in a modular and distinct fashion allowing the Project to develop, while keeping the current operations in place until the newer technology is added and becomes operational.
- The permitted maximum storage will increase from 60,000 cubic yards to 90,000 CYD of compost feedstock, composting material, and final product, where the food waste materials will occur under covered conditions.

The proposed improvements for the Project consist of the following:

Covered Composting: Phase in the conversion of the existing open air green waste windrow composting system to a covered composting system that can accept blended amounts of food waste with the green waste, and add odor and emission control technology with the use of biofilters. Green waste windrow composting will still be allowed to continue as the covered compost technology is phased in.

Anaerobic Digestion: Installation of anaerobic digestion technology to process a mixture of food waste and green waste in a fully enclosed structure, and create a byproduct of renewable compressed natural gas to fuel the waste and recycling collection vehicle fleet, as well as producing a digestate that will be further composted on-site..

Biomass Gasification Unit: The project would include the processing of 11,500 tons of wood waste per year to generate renewable energy from synthesis gas generated by the gasification of up to 40 tons of wood chips per day, which will also produce a biochar byproduct. The electricity will be used on-site to power the equipment and sell the excess power back to the grid. Heat generated by the system would be beneficially used on site.

Stormwater Treatment: Install improved stormwater pollution prevention and treatment facilities.

Solar Panels: Install solar panels on the roof of the Materials Diversion Facility building and shop building.

In anticipation meeting state and local environmental regulatory requirements, especially the goals of AB 32 and AB 341, Napa retained CH2M HILL to evaluate the potential material processing and facility layout options that will meet the the proposed regulations using a covered compost system technology and/or anaerobic digestion system technology. CH2M HILL prepared a Report, "**Assessment of Options – Material Diversion Facility Planning for Covered Compost and Anaerobic Digestion**" dated August 2012, that evaluated the general facility design and potential environmental impacts. The Report suggested a series of design considerations that are built into the Project that mitigate potential environmental impacts. By doing so, mitigation measures as part of the Initial Study will not be part labeled as "mitigation measures", but will be incorporated into the design of the Project. The Report will be referenced throughout this Initial Study as the "CH2M Hill Report", and is included as Attachment 10.

The following are additional details regarding the proposed improvements with the estimated annual and daily tonnages shown in Table 1.

The Facility will receive food waste from residential and commercial sources, and increase the annual tonnage from an average of 48,500 TPY to 61,500 TPY as shown in Table 2 below, but will not be an increase in the permitted maximum daily tonnage. The proposed activities consist of the following technological changes:

- Anaerobic Digestion - Process of 20,000 tons per year of organics consisting of various blends of green waste and food waste, which would be anaerobically digested with the resulting biogas used to produce compressed natural gas for vehicle fuel.
- Covered Aerated Static Pile Composting System - Process of 30,000 tons per year of co-collected green waste (with food waste), grape pomace, sawdust, manure and bedding that would be placed in an aerated static pile composting system.
- Biomass Gasification Unit - Receipt of 11,500 tons of wood waste that would be used as fuel in a biomass gasification facility to create synthesis gas for use as fuel in an engine generator set, with the wood chips being processed on-site at the Green Waste Chipping and Grinding Facility.

The increase in tonnage would include 12,500 TPY of food waste from both commercial and residential sources, where the residential food waste is co-collected with green material, and an increase of 3,000 TPY of wood waste. Grape pomace will continued to be received, where some may be composted.

#### Covered Composting

The existing composting operation receives and processes green waste collected by curbside recycling programs in the City of Napa, in the unincorporated portions of southern Napa County, and in other locations, as well as green waste and wood wastes delivered directly by the public. The existing process involves open-air processing of the green waste. The process includes the initial shredding and screening of material, placement into large open windrows, turning of the windrows with heavy equipment, screening to separate the fine composted materials from the larger material, and curing of the fine composting material in a large pile and leaves). As the content of the raw green waste varies, so does the time required for decomposition.

The project proposes a new covered composting system based on the AC Composter system developed and provided by Engineered Compost Systems (ECS) of Seattle, WA. This is a negatively aerated static pile composting system that uses a tough ultraviolet (UV) resistant and impermeable fabric cover. The compost will contained within three-sided bunkers (i.e., open on the front). Compost piles will be aerated via an in-floor trench system. The ECS AC Composter system is designed to receive incoming wastes that have been ground, mixed and moisture conditioned to just over 60 percent moisture. The prepared wastes, consisting of a mixture of co-collected green waste and food waste, are then placed into concrete bunkers sized 25 feet wide by 90 feet long, with the piles stacked by front-end loader up to 10 feet high. The piles are then covered with the fabric and air is drawn, or pushed, through the pile (negative or positive aeration) at an aeration rate designed to maintain temperatures within the pile between 114 and 150 degrees Fahrenheit (°F) and maintain oxygen levels above 16 percent at all times. Alternatively, the piles can be covered with finished compost or compost overs for emission control. . Each aerated static pile zone is placed on a foundation of aeration pipes and coarse-ground woody material, and was capped with a 1-foot-thick layer of finished, unscreened compost acting as a biofilter. Retention time in the AC Composter is 21 to 28 days overall with one turn occurring between the 11th and 14th day to add water and re-mix the pile. Twelve concrete bunkers provide capacity to process 10,000 cubic yards or 4,350 tons at any given time. At the end of the 21 to 28-day cycle, the composted materials are removed and screened to remove particles over 1-inch in diameter, and then sent to a curing area to mature for an additional 30 to 60 days. The curing area may contain up to twelve windrows that are 20 wide at the base, 8 feet high, and 200 feet long, each capable of holding 1,000 cubic yards. A windrow turner is then used to fluff and homogenize the curing windrows to allow natural aeration. Green waste windrow composting will still be allowed to continue as the covered compost technology is phased in.

The new covered composting operation will be located immediately southeast of the intersection of Tower Road and Levitin Way, and will process up to 30,000 tons per year of green and food waste.

### Anaerobic Digestion

The project includes the installation of anaerobic digesters in the south central portion of the site (see Site Plan in Attachment 4) to process a mixture of food waste and green waste, and create a byproduct of renewable compressed natural gas to fuel the waste and recycling vehicle fleet.

Anaerobic digestion (AD) is a process in which microorganisms are used to break down organic material in the absence of oxygen. In the process, a biogas consisting of methane, carbon dioxide, and trace gases are produced that can be used as a renewable energy source. This technology is widely used in the wastewater industry and now considered a potential option to treat organic wastes. Two types of AD systems for waste substrates exist and are identified by the form the feedstock needs to be in order to be processed. The first is the "Dry" AD system which processes wastes in its drier, stackable form such as fresh food and yard waste. The other is the "Wet" and high-solids slurry AD systems that handle wastes that are in liquid or slurry form, which in the case of food waste can be liquefied with the addition of water. The dry AD system is the selected technology for this project because of its ability to accept yard waste.

The dry systems involve stacking wastes in an enclosed tunnel. While within the tunnel, liquids that percolate through the wastes are re-circulated back into the material to maintain nutrients, microorganisms, and provide sufficient moisture for the digestion process. Attachments 5 and 6 show a simplified schematic and process flow of a dry AD system.

The SmartFerm system proposed for the facility involves receiving food and green waste, blending them together, and placing the blend in anaerobic digesters that are approximately 40 feet long, 12 feet wide, and 12 feet high, although the stack height of waste material is about 8.5 feet. The blended organics are then subject to aeration for up to 1 day to initiate aerobic composting and rapidly increase the temperature of the organics to 120 to 130°F. Then, heated liquid percolate (~131°F) is circulated through the organics to initiate and promote anaerobic digestion. The liquid percolate is the liquid that has leached out of other digesters and serves to inoculate and increase the moisture content.

Biogas is recovered and sent to a biogas upgrade system that cleans the biogas to fuel quality. The purified flow of biomethane (about 99% methane by volume) is then compressed, stored and made available as compressed natural gas through an on-site fueling system that will be used to fill waste collection vehicles. The waste gas from the biogas purification system, comprised of about 40% methane by volume, may be used to operate three microturbines to generate electricity. The heat from the microturbines would be recovered and used to heat the percolate and maintain the system at thermophilic temperatures. After a retention time of about 21 days in the AD system, biogas generation is exhausted and the digestate is removed and placed in an in-vessel composting chamber for 4 to 5 days. Air is drawn through the material to strip ammonia that could be an odor issue at the facility. The off-gas is passed through a biofilter to oxidize emissions and prevent odor. To meet U.S. Composting Council's (USCC) Seal of Testing Assurance (STA) threshold guidelines, the material will then be further cured between 4 to 6 weeks after being removed from the in-vessel composting chamber.

Napa's proposed facility will generate bio-methane from organic waste derived from various blends of food waste and green waste to total 20,000 tons per year of combined source separated mixed organic feedstock. The project will take currently collected organic feedstock generated within the City of Napa and surrounding areas, placed within the AD digesters and capture the biogas and purify it into bio-methane, compost the solid digestate material, convert the bio-methane into a renewable compressed natural gas (CNG), use of the renewable CNG by the local refuse and recycling fleet, and sale of organic compost to landscapers, wineries and general public within Napa County. Yard waste will be delivered in sufficient quantities to provide adequate structural material. Feedstocks for the digester are expected to include primarily commercial food waste and food processing waste (primarily grape pomace), and small amounts of manure (primarily horse manure and bedding).

Twenty thousand tons of organic material will produce approximately 111,891 diesel gallon equivalents (DGE), which would provide enough renewable CNG to fuel 14 solid waste and recycling collection vehicles per day. The California Air Resources Board has declared renewable CNG to a carbon negative fuel. In addition, 8,882 tons per year of finished compost will be produced along with 160 KW of power from a micro turbine with a combined heat and power (CHP) process, which will be used to offset the energy requirements of the AD process.

The City is currently composting approximately 150 tons per month of commercial food waste under the *Food Waste Research Composting Operation* permit issued by the Napa County Local Enforcement Agency (LEA). Napa expects collection of source-separated digestible organic waste to increase quickly to approximately 5,000 tons per year, and may rapidly increase to reach 20,000 tons per year or more within the foreseeable future if wastes from surrounding areas are



added. The AD Digesters would be installed in 2 phases, with 10,000 tons per year, enough for eight digesters, per phase.

### Biomass Energy Production

The proposed project includes the installation and operation of a 50-foot tall biomass gasification facility in the southeast corner of the project site that would generate 1.0 MW of renewable energy primarily for on-site operations, and also for off-site community need. The biomass gasification plant would operate 24-hours a day, seven days per week, operating at 80% capacity, and utilize an average of 32 tons per day of clean wood chips, or a peak of 40 tons per day, that would be processed on-site at the adjacent Compost Facility. A conveyor-fed hopper would deliver the wood chips into the biomass plant via the fuel hopper. The project would take advantage of locally-available renewable biomass resources (i.e., urban wood waste and lumber) that would otherwise be hauled to the Central Valley to fuel less efficient fluidized-bed biomass plants built in the 1980's. The local wood chip supply is assured by the current urban wood waste received and processed at the Napa MDF compost facility, and will only increase in time as more construction and demolition wood waste is captured and as agricultural burning of the vineyards is curtailed. The renewable energy will be used on-site to run the MRF equipment, baler and the office and to electrify the diesel off-road stationary equipment at the compost facility. The renewable energy from the biomass plant will also be used to operate the proposed covered aerated static pile food waste and green waste compost operations and the proposed anaerobic digestion facility and renewable compressed natural gas (CNG) fueling station. The heat from the Biomass Gasification CHP application will be used to dry out grape pomace for cattle feed and to dry out the wood chips for a more efficient conversion process.

Biomass gasification systems generate electricity through the transformation of the solid woody biomass into a "syngas", known as synthesis gas, and the combustion of the syngas in an internal combustion engine. The syngas is cleaned through a variety of standard filters specific to syngas to remove entrained solid particulars, condensed tars, and trace contaminants. The treated syngas is then combusted in the internal combustion engine with a heat exchange system (Genset with accessories), that involves "rich" burn engines, catalytic convertors controls and is used to control nitrogen oxides, reactive organic gases and carbon monoxide. Gasification is the thermochemical conversion of woody biomass into a syngas under controlled temperature and oxygen conditions. The syngas formed by gasification is composed primarily of hydrogen, carbon monoxide, and some methane. Gasification produces a solid carbon biochar that is a valuable fertilizer and soil amendment, and serves as a highly effective sequestration media for carbon.

The proposed biomass gasification unit would utilize proven gasification technologies that convert biomass into a synthetic natural gas ("syngas") through the process of thermo-chemical conversion. This syngas would then be used to fuel a specially modified natural gas genset that would provide renewable electricity and heat to the structures and equipment on-site. The biomass gasification process is a thermo-chemical one that "cooks" biomass in an oxygen-starved environment. By depriving the fuel of sufficient oxygen, the biomass does not burn but rather gives off a hydrogen-rich syngas. As the biomass gives off the syngas, it is transformed into bio-char and ash of approximately 2 to 10 percent of the volume of biomass fuel. The syngas is then captured, cleaned by a series of scrubbers and filters, and cooled before being sent as fuel to the genset.

Bio-char and ash would be removed from the conversion chamber using pumped slurry. This slurry is cooled and then filtered. The resulting char byproduct is separated out using a special mechanical separator for resale as a soil amendment, sequestering carbon in the ground for up to 1,000 years. The water is again filtered, cooled and recirculated.

Transmission lines would be installed to power the MDF, the proposed covered compost facility, the proposed anaerobic digestion operations, electrification of the diesel equipment, and sell excess electricity to Pacific Gas and Electric (PG&E).

### Stormwater Treatment

The existing aerated retention pond and bioswale stormwater treatment system which has been in place for many years is proposed to be replaced with new stormwater treatment facilities in the northwest corner of the project site. Leachate and condensate collection is incorporated into ECS's compost system and ZWE's anaerobic digester designs. Generally, leachate and condensate in the ECS system are captured via the in-floor aeration trenches and gravity drains into below-grade sumps. From the sumps, the liquids would be pumped to two 16,500-gallon aboveground leachate storage tanks. These storage tanks would be equipped with a fine-bubbler system to provide aeration of the leachate and be constructed of high density polyethylene (HDPE). Vents from the tanks would be interconnected to the CCST (this needs to be defined) process air ducting so that foul air from the tanks is directed to the biofilter for treatment. Leachate from the tank would be reused as a source of moisture when preparing feedstocks for composting in the CCST. Allowances would also be made in the tank design to allow the surplus leachate to be pumped to tanker trucks and disposed of offsite at a licensed wastewater treatment facility. Leachate within the SmartFerm percolate tanks is normally recycled back into the ADST (this needs to be defined). However, excess percolate would be pumped to the HDPE leachate storage tanks for aeration so that it can be recycled into the compost system as makeup water.

A Preliminary Stormwater Management Plan dated July 3, 2013 was prepared by Riechers Spence Associates Consulting Civil Engineers to determine the necessary improvements for upgrading the stormwater pollution prevention and treatment facilities. The Stormwater Management Plan includes the following facilities:

- Concrete curbing around compost processing areas to prevent run-on and run-off.
- Use of existing storm drain system (with minor alterations) to convey stormwater runoff.
- Pretreatment via the installation of a new 4-chamber solid separator in an existing concrete basin.
- Primary treatment via a new two-stage treatment pond, separated by a floating baffle curtain.
- Secondary treatment via a new facultative vegetated lagoon.
- Upgrading of the existing grass-lined bioswale to current CASQA standards.
- Tertiary treatment via installation of a new sand filter.

Attachment 9 includes a summary of the Stormwater Management Plan with a site plan of proposed improvements.

It is also noted that the overall project will include the installation of new roof covers over the existing recyclable materials outdoor storage area on the east side of the site, which will further reduce stormwater pollution.

#### Solar panels

The project includes the proposed installation of solar panels on the roofs of the Materials Recovery building and the shop building to reduce energy usage which is currently purchased from PG&E. The panels would cover a roof area of approximately 20,000 square feet. The 397 DC kW system would be comprised of 1,260 Suniva 315-watt modules, facing south, and inclined at 5 degrees. The system would result in an annual reduction of 273,587 pounds of CO<sub>2</sub>.

#### **ENVIRONMENTAL SETTING:**

The project site is located in an industrially developed area of unincorporated Napa County approximately 2 miles south of the current Napa city limits, one-half mile west of State Highway 29, and 500 feet east of the Napa County Airport (see Project Vicinity Map in Attachment 1 and Aerial Location Map in Attachment 2). The property is currently going through the process of being annexed into the City as a non-contiguous island. Access to the site is from Highway 29 via Devlin Road at a signalized intersection at Highway 29 and Kelly Road. The MDF property is fenced.

The facility currently provides single-stream residential curbside recycling, residential yard waste, multi-family dwelling recycling and yard waste, commercial recycling, yard waste and food waste and construction and demolition debris services for Napa and surrounding counties. In addition, the facility sorts and processes 40,000 tons of recyclables per year, processes over 30,000 tons of source-separated construction and demolition materials, and composts 42,000 tons of yard waste annually (with a permit capacity of 72,000 tons per year for composting). The facility has a permanent universal waste drop-off facility as well.

Surrounding land uses include industrial uses to the north, south and east, and the Napa County Airport to the west.

#### **DECLARATION**

Based on the Initial Study dated September 16, 2013, the Planning Department staff has determined:

1. This project does not have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal, or eliminate important examples of the major periods of California history or prehistory.
2. This project will not have a detrimental effect upon either short-term or long-term environmental goals.
3. This project will not have impacts which are individually limited but cumulatively considerable.
4. This project will not have environmental impacts which will cause substantial adverse effect upon human beings, either directly or indirectly.

The Initial Study and other environmental documents are available for public review at the Community Development Department – Planning Division. The public is hereby invited to submit written comments regarding the environmental findings and Negative Declaration determination. Such comments may be submitted to the City Of Napa Planning Division, Attention Kevin Eberle, 1600 First Street, Napa, CA 94559.

**POSTING PERIOD:** September 18, 2013 through October 17, 2013

Negative Declaration Prepared by and available at: City of Napa Planning Department, 1600 First Street, City of Napa.

Contact Person: Kevin Eberle Date 9/16/13  
Kevin Eberle, Senior Planner  
Telephone: (707) 257-9357

**City Of Napa – Community Development Department**  
**1600 First Street – P.O. Box 660**  
**Napa, CA 94559**  
**(707) 257-9530**

**INITIAL STUDY OF ENVIRONMENTAL SIGNIFICANCE**

|                       |                                                                    |                     |                                  |
|-----------------------|--------------------------------------------------------------------|---------------------|----------------------------------|
| <b>PROJECT NAME:</b>  | <b>Napa Renewable Resources Project (NRRP)</b>                     | <b>FILE NUMBER:</b> | PL12-0022                        |
| <b>SITE ADDRESS:</b>  | 820 Levitin Way                                                    | <b>APNs:</b>        | 57-110-49, 52,<br>65, 66, 67, 68 |
| <b>GENERAL PLAN:</b>  | Public Serving (PS)                                                |                     |                                  |
| <b>ZONING:</b>        | Public/Quasi-Public (PQ)                                           |                     |                                  |
| <b>APPLICANT:</b>     | City of Napa<br>1600 First Street – P.O. Box 660<br>Napa, CA 94559 | <b>PHONE:</b>       | 707.257.9530                     |
| <b>STAFF MANAGER:</b> | Kevin Eberle, Senior Planner                                       | <b>PHONE:</b>       | 707.257.9357                     |

**PROJECT SUMMARY:**

The City of Napa is proposing a number of improvements at its existing Materials Diversion Facility (MDF) which is located in south Napa County at 802 Levitin Way. The MDF receives and processes all residential and commercial source-separated recyclables and yard waste generated within the City and collected by the City's authorized operator Napa Recycling and Waste Services. The MDF also receives and processes materials delivered by haulers servicing surrounding jurisdictions (such as unincorporated Napa County) and by private (self-haul) customers.

The Napa MDF is a fully permitted Solid Waste Facility that is inspected monthly by the County. Napa MDF was developed in the early nineties to answer the call of the California Integrated Waste Management Act of 1989 (AB 939) to divert 50% of the waste stream from disposal by 2000, which has been surpassed. The city of Napa has been highly successful since purchasing the MDF in 2004 which includes the Material Recovery Facility (MRF) and a composting facility. The MRF is permitted to process up to 360 tons per day of recyclables and the Compost Facility is permitted to accept 200 tons per day of yard waste and wood waste. A 200 tons per day green waste chipping and grinding operations and a food material compost operation and are also located on-site. Napa is now poised to add the Napa Renewable Resources Project (NRRP) to the Napa MDF; expanding its sustainability efforts from being the community recycling and compost facility, into a self-sufficient renewable energy resource recovery park to meet the measures of AB 32 and the California Global Warming Solutions Act of 2006, and AB 341. AB 32 resulted in the adoption of the AB 32 Scoping Plan in 2008 that included a series of measures adopted by the California Air Resources Board (CARB) for High Recycling/Zero Waste, which will affect the solid waste and recycling sector and local government. The key measures of AB 32 include generating 33% renewable energy by 2020, producing low carbon fuel, implementing mandated commercial recycling programs, developing anaerobic digestion facilities, and increasing the use of compost. As a result of the AB 32 Scoping Plan, AB 341 was adopted in 2011 to specially address mandated commercial recycling and develop a plan to reduce, recycle or compost 75% of the statewide waste materials by 2020. The City of Napa recognizes the statewide goal of a 75% diversion rate by 2020, and has adopted a similar goal to divert 75% of the City's waste by 2020.

**CURRENT OPERATIONS:**

The existing MDF site comprises approximately 18.6 acres, of which approximately 12 acres are used for organic material management operations such as composting and chip and grind; 2.2 acres for soil stockpiling; 1.2 acres for concrete recycling; 1.2 acres for material recovery facility (MRF); and about 2.0 acres for support operations. Existing improvements on the site include a materials recycling building, administration office, scale house,

outdoor composting area, outdoor finished compost storage area, outdoor soils stockpile area, and outdoor concrete recycling area. The organic material management operation includes a feedstock receiving area, wood grinding, windrow composting, outdoor storage of finished compost, two 10,000-square-foot structures, research composting operation, and wastewater treatment system. The facility has a permanent universal waste drop-off facility as well. The layout of existing facilities is shown in Attachment 3.

Current operations on the project site include receiving, storing, processing, recycling, and composting waste materials from the residential, commercial, and industrial sectors. Permitted hours of operations are the receipt of commercial vehicles from 5 am to 5 pm; public vehicles from 8 am to 5 pm, mixed municipal waste processing operations from 6 am to 6 pm, composting operations from 8 am to 5 pm, recyclable processing operations 24 hours per day, Monday through Sunday. A total of 760 tons per day of waste materials can be accepted under their current permit from a combined 382 vehicles per day. A detailed summary of the existing on-site facilities and their individual operations is provided below:

#### Material Recovery Facility:

The MRF is a recycling facility that sorts and processes a variety of mixed recyclables materials including newspapers, cardboard, junk mail, magazines, containers, glass, plastic, aluminum, and a series of other recyclable materials as markets emerge. Material is dumped onto the tipping floor of an enclosed facility and then pushed onto a conveyor hopper, where it follows along a series of sorting belts and screens. The processing equipment and manual labor separates them materials, after which it is stored in bunkers or containers. and baled daily for storage and transportation. The residual material is transferred to a permitted landfill. The Facility also processes source-separated construction and demolition materials on an outdoor pad area. This facility can operated up to 24 hours per, seven days per week, and has a permitted capacity of 360 tons per day operating under Solid Waste Facility Permit No. 28-AA-0030

The MRF currently sorts and processes 40,000 tons of recyclables per year, and processes over 30,000 tons of source-separated construction and demolition materials to manage an average of 269 TPD where up to 360 TPD is the permitted capacity as shown in Table 1 below. The MRF has capacity to process additional materials as mandated commercial recycling is fully phased in by 2020.

**Table 1 – Current Operations and Permitted Capacity of the Material Recovery Facility**

| Material Type                                 | Material Diversion Facility |                      | Total          |
|-----------------------------------------------|-----------------------------|----------------------|----------------|
|                                               | Recyclables                 | Source-separated C&D |                |
| Actual Processing –<br>Tons Per Year (TPY)    | 40,000                      | 30,000               | 70,000 TPY     |
| Total - Tons Per Day (M-F)<br>inbound average | 154 TPD ave                 | 115 TPD ave          | 269 TPD ave.   |
|                                               |                             |                      | 360 TPD permit |

#### Composting Facility:

The compost facility accepts processed yard waste and green waste materials where the materials are placed into open windrows on an all weather outdoor pad where the material is turned by a windrow turner for a period of up to 90 days where there is a minimum of 5 turns in a 15 days period for pathogen reduction. The compost materials are screened and blended to meet market specifications, and the compost is used throughout the County in the vineyards and the surrounding regions as landscape materials. This facility can operate from 8 am to 5 pm, seven days per week, and has a permitted capacity of 200 tons per day operating under Solid Waste Facility Permit No. 28-AA-0023.

The Compost Facility currently manages 42,000 tons of yard waste annually, or 161 TPD average (with a permit capacity of 72,000 tons per year for composting).

#### Green Waste Chipping and Grinding Facility:

The facility accepts yard waste, green waste, and wood waste materials for processing. The material is dumped on a concrete outdoor tipping pad, load-checked for contamination, and then loaded into a grinder for processing. The wood waste is processed into wood chips to be delivered to off-site biomass energy facilities to produce renewable power. Green waste is processed into mulches and compost feedstock for the on-site compost facility.

This facility can operate up 8 am to 5 pm, seven days per week, and has a permitted capacity of 200 tons per day operating under Enforcement Agency Notification No. 28-AA-0039.

#### Food Waste Composting Research Operations:

Limited amounts of food waste and green materials are collected at special events as a pilot program. The material is delivered to dedicated windrows at the compost facility to monitor the composting process following the standard operations under Enforcement Agency Notification No. 28-AA-0030. This pilot program has delivered results that food waste can be co-collected with green waste and be composted on-site and produce a quality compost product, where the research provides validation that the program should be expanded.

#### **Previous Approvals**

The City and the operator, Napa Recycling and Waste Services (NRWS) maintain many local and state permits for the MDF site: The County of Napa approved Use Permit U-90-2, and certified a Negative Declaration in 1991, which has been modified several times over the years; February 9, 1994 (93248-MOD), September 16, 1994 (93530-MOD), April 16, 1995 (94129-MOD), March 20, 1996 (95172-MOD), and September 5, 1997 (96468-MOD), and with each Use Permit Modification, a Negative Declaration was certified. Pursuant to Section 15150 of the California Environmental Quality Act, the Negative Declarations that were prepared for each of the existing modification of the facility are incorporated into this Initial Study by reference and listed below:

- Negative Declaration for Use Permit #U-90-29: Establishment of recyclable material transfer facility, yard waste recycling facility, administrative offices, and truck storage administrative maintenance. (2/20/91)
- Negative Declaration for Solid Waste Facility Permit #SWF-009 (10/2/92) SCH #92033087
- Negative Declaration for Use Permit Modification #93530-MOD: Installation of surface runoff retention and filtration ponds (9/16/94) SCH #94073045
- Negative Declaration for Use Permit Modification #94129-MOD. (8/9/95) SCH #95023019
- Negative Declaration for Use Permit Modification #95172-MOD (3/28/96)

The Facility has obtained the following permits:

- General Permit for Storm water Discharges Associated with Industrial Activity , Waste Discharge Identification (WDID) Number 2 281020443, State Water Resources Control Board (State Water Board)
- Order No. 96-098, Conditional Waiver of Waste Discharge Requirements (WDR) for Composting Operations, California Regional Water Quality Control Board, San Francisco Bay Region (Water Board)
- Permit to Operate Plant #17403, Bay Area Air Quality Management District (BAAQMD)
- Napa County Agricultural Commissioner/California Department of Food and Agriculture (CDFA)/United States Department of Agriculture (USDA) Compliance Agreement No. 28-03-SOD-010 – *Phytophthora* Quarantine

#### **PROPOSED PROJECT**

The proposed Project consists of a Use Permit to be issued by the City of Napa for the operational changes and new technologies at Napa MDF for the "Napa Renewable Resources Project" However, many of the key aspects of the project will not change:

- The property boundary and the permitted area will remain the same.
- The permitted maximum daily tonnage amount will not increase.
- The permitted maximum daily traffic amount will not increase.

The following items will change:

- Food waste and co-collected food waste will be received at the Facility.
- The hours of operations will change for the compost facility as the newer compost technologies 24 hour operations to operate the blowers in the aerated static pile system and the mechanics of the anaerobic digestion system.
- Storage will be changed to accommodate the biomass gasification plant.

- The operational changes and technologies will be phased in over time in a modular and distinct fashion allowing the Project to develop, while keeping the current operations in place until the newer technology is added and becomes operational.
- The permitted maximum storage will increase from 60,000 cubic yards to 90,000 CYD of compost feedstock, composting material, and final product, where the food waste materials will occur under covered conditions.

The proposed improvements for the Project consist of the following:

Covered Composting: Phase in the conversion of the existing open air green waste windrow composting system to a covered composting system that can accept blended amounts of food waste with the green waste, and add odor and emission control technology with the use of biofilters. Green waste windrow composting will still be allowed to continue as the covered compost technology is phased in.

Anaerobic Digestion: Installation of anaerobic digestion technology to process a mixture of food waste and green waste in a fully enclosed structure, and create a byproduct of renewable compressed natural gas to fuel the waste and recycling collection vehicle fleet, as well as producing a digestate that will be further composted on-site..

Biomass Gasification Unit: The project would include the processing of 11,500 tons of wood waste per year to generate renewable energy from synthesis gas generated by the gasification of up to 40 tons of wood chips per day, which will also produce a biochar byproduct. The electricity will be used on-site to power the equipment and sell the excess power back to the grid. Heat generated by the system would be beneficially used on site.

Stormwater Treatment: Install improved stormwater pollution prevention and treatment facilities.

Solar Panels: Install solar panels on the roof of the Materials Diversion Facility building and shop building.

In anticipation meeting state and local environmental regulatory requirements, especially the goals of AB 32 and AB 341, Napa retained CH2M HILL to evaluate the potential material processing and facility layout options that will meet the the proposed regulations using a covered compost system technology and/or anaerobic digestion system technology. CH2M HILL prepared a Report, **"Assessment of Options – Material Diversion Facility Planning for Covered Compost and Anaerobic Digestion"** dated August 2012, that evaluated the general facility design and potential environmental impacts. The Report suggested a series of design considerations that are built into the Project that mitigate potential environmental impacts. By doing so, mitigation measures as part of the Initial Study will not be part labeled as "mitigation measures", but will be incorporated into the design of the Project. The Report will be referenced throughout this Initial Study as the "CH2M Hill Report", and is included as Attachment 10.

The following are additional details regarding the proposed improvements with the estimated annual and daily tonnages shown in Table 1.

The Facility will receive food waste from residential and commercial sources, and increase the annual tonnage from an average of 48,500 TPY to 61,500 TPY as shown in Table 2 below, but will not be an increase in the permitted maximum daily tonnage. The proposed activities consist of the following technological changes:

- Anaerobic Digestion - Process of 20,000 tons per year of organics consisting of various blends of green waste and food waste, which would be anaerobically digested with the resulting biogas used to produce compressed natural gas for vehicle fuel.
- Covered Aerated Static Pile Composting System - Process of 30,000 tons per year of co-collected green waste with food waste), grape pomace, sawdust, manure and bedding that would be placed in an aerated static pile composting system.
- Biomass Gasification Unit - Receipt of 11,500 tons of wood waste that would be used as fuel in a biomass gasification facility to create synthesis gas for use as fuel in an engine generator set, with the wood chips being processed on-site at the Green Waste Chipping and Grinding Facility.

The increase in tonnage would include 12,500 TPY of food waste from both commercial and residential sources, where the residential food waste is co-collected with green material, and an increase of 3,000 TPY of wood waste. Grape pomace will continued to be received, where some may be composted.

#### Covered Composting

The existing composting operation receives and processes green waste collected by curbside recycling programs in the City of Napa, in the unincorporated portions of southern Napa County, and in other locations, as well as green waste and wood wastes delivered directly by the public. The existing process involves open-air processing of the green waste. The process includes the initial shredding and screening of material, placement into large open windrows, turning of the windrows with heavy equipment, screening to separate the fine composted materials from the larger material, and curing of the fine composting material in a large pile and leaves). As the content of the raw green waste varies, so does the time required for decomposition.

The project proposes a new covered composting system based on the AC Composter system developed and provided by Engineered Compost Systems (ECS) of Seattle, WA. This is a negatively aerated static pile composting system that uses a tough ultraviolet (UV) resistant and impermeable fabric cover. The compost will contained within three-sided bunkers (i.e., open on the front). Compost piles will be aerated via an in-floor trench system. The ECS AC Composter system is designed to receive incoming wastes that have been ground, mixed and moisture conditioned to just over 60 percent moisture. The prepared wastes, consisting of a mixture of co-collected green waste and food waste, are then placed into concrete bunkers sized 25 feet wide by 90 feet long, with the piles stacked by front-end loader up to 10 feet high. The piles are then covered with the fabric and air is drawn, or pushed, through the pile (negative or positive aeration) at an aeration rate designed to maintain temperatures within the pile between 114 and 150 degrees Fahrenheit (°F) and maintain oxygen levels above 16 percent at all times. Alternatively, the piles can be covered with finished compost or compost overs for emission control. Each aerated static pile zone is placed on a foundation of aeration pipes and coarse-ground woody material, and was capped with a 1-foot-thick layer of finished, unscreened compost acting as a biofilter. Retention time in the AC Composter is 21 to 28 days overall with one turn occurring between the 11th and 14th day to add water and re-mix the pile. Twelve concrete bunkers provide capacity to process 10,000 cubic yards or 4,350 tons at any given time. At the end of the 21 to 28-day cycle, the composted materials are removed and screened to remove particles over 1-inch in diameter, and then sent to a curing area to mature for an additional 30 to 60 days. The curing area may contain up to twelve windrows that are 20 wide at the base, 8 feet high, and 200 feet long, each capable of holding 1,000 cubic yards. A windrow turner is then used to fluff and homogenize the curing windrows to allow natural aeration. Green waste windrow composting will still be allowed to continue as the covered compost technology is phased in.

The new covered composting operation will be located immediately southeast of the intersection of Tower Road and Levitin Way, and will process up to 30,000 tons per year of green and food waste.

#### Anaerobic Digestion

The project includes the installation of anaerobic digesters in the south central portion of the site (see Site Plan in Attachment 4) to process a mixture of food waste and green waste, and create a byproduct of renewable compressed natural gas to fuel the waste and recycling vehicle fleet.

Anaerobic digestion (AD) is a process in which microorganisms are used to break down organic material in the absence of oxygen. In the process, a biogas consisting of methane, carbon dioxide, and trace gases are produced that can be used as a renewable energy source. This technology is widely used in the wastewater industry and now considered a potential option to treat organic wastes. Two types of AD systems for waste substrates exist and are identified by the form the feedstock needs to be in order to be processed. The first is the "Dry" AD system which processes wastes in its drier, stackable form such as fresh food and yard waste. The other is the "Wet" and high-solids slurry AD systems that handle wastes that are in liquid or slurry form, which in the case of food waste can be liquefied with the addition of water. The dry AD system is the selected technology for this project because of its ability to accept yard waste.

The dry systems involve stacking wastes in an enclosed tunnel. While within the tunnel, liquids that percolate through the wastes are re-circulated back into the material to maintain nutrients, microorganisms, and provide sufficient moisture for the digestion process. Attachments 5 and 6 show a simplified schematic and process flow of a dry AD system.



The SmartFerm system proposed for the facility involves receiving food and green waste, blending them together, and placing the blend in anaerobic digesters that are approximately 40 feet long, 12 feet wide, and 12 feet high, although the stack height of waste material is about 8.5 feet. The blended organics are then subject to aeration for up to 1 day to initiate aerobic composting and rapidly increase the temperature of the organics to 120 to 130°F. Then, heated liquid percolate (~131°F) is circulated through the organics to initiate and promote anaerobic digestion. The liquid percolate is the liquid that has leached out of other digesters and serves to inoculate and increase the moisture content.

Biogas is recovered and sent to a biogas upgrade system that cleans the biogas to fuel quality. The purified flow of biomethane (about 99% methane by volume) is then compressed, stored and made available as compressed natural gas through an on-site fueling system that will be used to fill waste collection vehicles. The waste gas from the biogas purification system, comprised of about 40% methane by volume, may be used to operate three microturbines to generate electricity. The heat from the microturbines would be recovered and used to heat the percolate and maintain the system at thermophilic temperatures. After a retention time of about 21 days in the AD system, biogas generation is exhausted and the digestate is removed and placed in an in-vessel composting chamber for 4 to 5 days. Air is drawn through the material to strip ammonia that could be an odor issue at the facility. The off-gas is passed through a biofilter to oxidize emissions and prevent odor. To meet U.S. Composting Council's (USCC) Seal of Testing Assurance (STA) threshold guidelines, the material will then be further cured between 4 to 6 weeks after being removed from the in-vessel composting chamber.

Napa's proposed facility will generate bio-methane from organic waste derived from various blends of food waste and green waste to total 20,000 tons per year of combined source separated mixed organic feedstock. The project will take currently collected organic feedstock generated within the City of Napa and surrounding areas, placed within the AD digesters and capture the biogas and purify it into bio-methane, compost the solid digestate material, convert the bio-methane into a renewable compressed natural gas (CNG), use of the renewable CNG by the local refuse and recycling fleet, and sale of organic compost to landscapers, wineries and general public within Napa County. Yard waste will be delivered in sufficient quantities to provide adequate structural material. Feedstocks for the digester are expected to include primarily commercial food waste and food processing waste (primarily grape pomace), and small amounts of manure (primarily horse manure and bedding).

Twenty thousand tons of organic material will produce approximately 111,891 diesel gallon equivalents (DGE), which would provide enough renewable CNG to fuel 14 solid waste and recycling collection vehicles per day. The California Air Resources Board has declared renewable CNG to a carbon negative fuel. In addition, 8,882 tons per year of finished compost will be produced along with 160 KW of power from a micro turbine with a combined heat and power (CHP) process, which will be used to offset the energy requirements of the AD process.

The City is currently composting approximately 150 tons per month of commercial food waste under the *Food Waste Research Composting Operation* permit issued by the Napa County Local Enforcement Agency (LEA). Napa expects collection of source-separated digestible organic waste to increase quickly to approximately 5,000 tons per year, and may rapidly increase to reach 20,000 tons per year or more within the foreseeable future if wastes from surrounding areas are added. The AD Digesters would be installed in 2 phases, with 10,000 tons per year, enough for eight digesters, per phase.

### Biomass Energy Production

The proposed project includes the installation and operation of a 50-foot tall biomass gasification facility in the southeast corner of the project site that would generate 1.0 MW of renewable energy primarily for on-site operations, and also for off-site community need. The biomass gasification plant would operate 24-hours a day, seven days per week, operating at 80% capacity, and utilize an average of 32 tons per day of clean wood chips, or a peak of 40 tons per day, that would be processed on-site at the adjacent Compost Facility. A conveyor-fed hopper would deliver the wood chips into the biomass plant via the fuel hopper. The project would take advantage of locally-available renewable biomass resources (i.e., urban wood waste and lumber) that would otherwise be hauled to the Central Valley to fuel less efficient fluidized-bed biomass plants built in the 1980's. The local wood chip supply is assured by the current urban wood waste received and processed at the Napa MDF compost facility, and will only increase in time as more construction and demolition wood waste is captured and as agricultural burning of the vineyards is curtailed. The renewable energy will be used on-site to run the MRF equipment, baler and the office and to electrify the diesel off-road stationary equipment at the compost facility.

The renewable energy from the biomass plant will also be used to operate the proposed covered aerated static pile food waste and green waste compost operations and the proposed anaerobic digestion facility and renewable compressed natural gas (CNG) fueling station. The heat from the Biomass Gasification CHP application will be used to dry out grape pomace for cattle feed and to dry out the wood chips for a more efficient conversion process.

Biomass gasification systems generate electricity through the transformation of the solid woody biomass into a "syngas", known as synthesis gas, and the combustion of the syngas in an internal combustion engine. The syngas is cleaned through a variety of standard filters specific to syngas to remove entrained solid particulates, condensed tars, and trace contaminants. The treated syngas is then combusted in the internal combustion engine with a heat exchange system (Genset with accessories), that involves "rich" burn engines, catalytic converters controls and is used to control nitrogen oxides, reactive organic gases and carbon monoxide. Gasification is the thermochemical conversion of woody biomass into a syngas under controlled temperature and oxygen conditions. The syngas formed by gasification is composed primarily of hydrogen, carbon monoxide, and some methane. Gasification produces a solid carbon biochar that is a valuable fertilizer and soil amendment, and serves as a highly effective sequestration media for carbon.

The proposed biomass gasification unit would utilize proven gasification technologies that convert biomass into a synthetic natural gas ("syngas") through the process of thermo-chemical conversion. This syngas would then be used to fuel a specially modified natural gas genset that would provide renewable electricity and heat to the structures and equipment on-site. The biomass gasification process is a thermo-chemical one that "cooks" biomass in an oxygen-starved environment. By depriving the fuel of sufficient oxygen, the biomass does not burn but rather gives off a hydrogen-rich syngas. As the biomass gives off the syngas, it is transformed into bio-char and ash of approximately 2 to 10 percent of the volume of biomass fuel. The syngas is then captured, cleaned by a series of scrubbers and filters, and cooled before being sent as fuel to the genset.

Bio-char and ash would be removed from the conversion chamber using pumped slurry. This slurry is cooled and then filtered. The resulting char byproduct is separated out using a special mechanical separator for resale as a soil amendment, sequestering carbon in the ground for up to 1,000 years. The water is again filtered, cooled and recirculated.

Transmission lines would be installed to power the MDF, the proposed covered compost facility, the proposed anaerobic digestion operations, electrification of the diesel equipment, and sell excess electricity to Pacific Gas and Electric (PG&E).

### Stormwater Treatment

The existing aerated retention pond and bioswale stormwater treatment system which has been in place for many years is proposed to be replaced with new stormwater treatment facilities in the northwest corner of the project site. Leachate and condensate collection is incorporated into ECS's compost system and ZWE's anaerobic digester designs. Generally, leachate and condensate in the ECS system are captured via the in-floor aeration trenches and gravity drains into below-grade sumps. From the sumps, the liquids would be pumped to two 16,500-gallon aboveground leachate storage tanks. These storage tanks would be equipped with a fine-bubbler system to provide aeration of the leachate and be constructed of high density polyethylene (HDPE). Vents from the tanks would be interconnected to the CCST (this needs to be defined) process air ducting so that foul air from the tanks is directed to the biofilter for treatment. Leachate from the tank would be reused as a source of moisture when preparing feedstocks for composting in the CCST. Allowances would also be made in the tank design to allow the surplus leachate to be pumped to tanker trucks and disposed of offsite at a licensed wastewater treatment facility. Leachate within the SmartFerm percolate tanks is normally recycled back into the ADST (this needs to be defined). However, excess percolate would be pumped to the HDPE leachate storage tanks for aeration so that it can be recycled into the compost system as makeup water.

A Preliminary Stormwater Management Plan dated July 3, 2013 was prepared by Riechers Spence Associates Consulting Civil Engineers to determine the necessary improvements for upgrading the stormwater pollution prevention and treatment facilities. The Stormwater Management Plan includes the following facilities:

- Concrete curbing around compost processing areas to prevent run-on and run-off.
- Use of existing storm drain system (with minor alterations) to convey stormwater runoff.

- Pretreatment via the installation of a new 4-chamber solid separator in an existing concrete basin.
- Primary treatment via a new two-stage treatment pond, separated by a floating baffle curtain.
- Secondary treatment via a new facultative vegetated lagoon.
- Upgrading of the existing grass-lined bioswale to current CASQA standards.
- Tertiary treatment via installation of a new sand filter.

Attachment 9 includes a summary of the Stormwater Management Plan with a site plan of proposed improvements.

It is also noted that the overall project will include the installation of new roof covers over the existing recyclable materials outdoor storage area on the east side of the site, which will further reduce stormwater pollution.

#### Solar panels

The project includes the proposed installation of solar panels on the roofs of the Materials Recovery building and the shop building to reduce energy usage which is currently purchased from PG&E. The panels would cover a roof area of approximately 20,000 square feet. The 397 DC kW system would be comprised of 1,260 Suniva 315-watt modules, facing south, and inclined at 5 degrees. The system would result in an annual reduction of 273,587 pounds of CO<sub>2</sub>.

#### **ENVIRONMENTAL SETTING:**

The project site is located in an industrially developed area of unincorporated Napa County approximately 2 miles south of the current Napa city limits, one-half mile west of State Highway 29, and 500 feet east of the Napa County Airport (see Project Vicinity Map in Attachment 1 and Aerial Location Map in Attachment 2). The property is currently going through the process of being annexed into the City as a non-contiguous island. Access to the site is from Highway 29 via Devlin Road at a signalized intersection at Highway 29 and Kelly Road. The MDF property is fenced.

The facility currently provides single-stream residential curbside recycling, residential yard waste, multi-family dwelling recycling and yard waste, commercial recycling, yard waste and food waste and construction and demolition debris services for Napa and surrounding counties. In addition, the facility sorts and processes 40,000 tons of recyclables per year, processes over 30,000 tons of source-separated construction and demolition materials, and composts 42,000 tons of yard waste annually (with a permit capacity of 72,000 tons per year for composting). The facility has a permanent universal waste drop-off facility as well.

Surrounding land uses include industrial uses to the north, south and east, and the Napa County Airport to the west.

#### **CITY APPROVALS REQUIRED:**

Use Permit

#### **REQUIRED APPROVALS:**

The CH2M Hill Report presents *Chapter 6 –Permitting and Compliance Plan* that fully provides an overview on the required approvals. The proposed project will require the following approvals.

- City of Napa, Community Development Department, Planning Division (land use and California Environmental Quality Act [CEQA])
- County of Napa, County Executive Office, Local Enforcement Agency (LEA)
- Department of Resources Recycling and Recovery (CalRecycle)
- San Francisco Bay Regional Water Quality Control Board (Water Board) for groundwater
- State Water Resources Control Board (State Water Board) for stormwater/wastewater
- Bay Area Air Quality Management District

## **City of Napa, Community Development Department, Planning Division**

Planning Division provides a comprehensive planning review and evaluation of all current development projects in accordance with State Planning Law, CEQA, the City's General Plan, Zoning Ordinance and other land use standards. The Division also provides advanced planning services, General Plan administration, and Zoning Ordinance studies not directly related to current development review.

The Planning Division processes all development applications for the City, including coordination of interdepartmental review; compliance with the requirements of CEQA; provide staff-level design review; and preparation of Planning Commission and City Council Reports. This division also responds to public inquiries regarding development and the City's review process; prepares amendments to the zoning ordinance; review of building permits and business licenses; and final inspection of on-site improvements for many approved projects. This division is the project manager for city initiated and privately initiated specific plans and where information regarding use permits, variances, architectural reviews, parcel maps, rezoning, subdivision maps, and plot line adjustments can be requested.

Any changes to the MDF property and operations would not be subject to County's land use permitting requirements and instead be permitted by the City as if it were within the City limits. The City is currently pursuing annexation and pre-zoning of six contiguous parcels within the existing MDF property as required pursuant to the State Aeronautics Act, Public Utilities Code, Chapter 4, Article 3.5, Section 21676 (County, 2012). Once annexation is complete, the MDF will officially be included within the City's General Plan. As part of the land use permit evaluation, there will be a discussion of compatibility with the County's zoning and planning documents, however, approval of the Airport Commission or the County is not necessary. In addition, changes to the MDF property would constitute a project that requires discretionary agency approval (or permits), therefore subject to environmental review. The City is serving as Lead Agency for purposes of the CEQA as required for new projects.

As Lead Agency, the City must first prepare an Initial Study to determine whether it can be fairly argued based on substantial evidence in light of the whole record that a project may have a significant effect on the environment. If the Lead Agency concludes that there is no substantial evidence that a project may cause a significant impact, a Negative Declaration could be prepared which may or may not include mitigation measures. Otherwise an Environmental Impact Report is required.

The addition of food material and technology to the the Facility is a significant change that requires the environmental review. The food material has the potential to adversely affect air quality (including nuisance odor) and water quality unless mitigated. According to CalRecycle's *Statewide Anaerobic Digester Facilities for the Treatment of Municipal Organic Solid Waste Final Program Environment Impact Report*, the State found that all impacts could be mitigated to a less-than-significant level with implementation of the mitigation measures. Air quality mitigation measures in the conceptual designs include providing enclosed, negative pressure buildings for indoor receiving and pre-processing; treating collected foul air in a biofilter or air scrubbing system; promptly handling odorous substrates; collecting and treating leachate from the active processing area; and controlling active composting under covered system with negative air to a biofilter. Water quality mitigation measures include installation of an impermeable working surface; collection, storage, and treatment of storm water runoff; covered receiving areas for food material; covered active composting process; collection and treatment of leachate from the receiving area and active composting process; and obtaining coverage under the appropriate Water Board permits for Waste Discharge to Land and National Pollutant Discharge Elimination System (NPDES).

## **County of Napa, County Executive Office, Local Enforcement Agency (LEA) and Department of Resources Recycling and Recovery (CalRecycle)**

CalRecycle is responsible for ensuring that the State's waste management programs are primarily carried out through state-certified LEAs. LEAs have the primary responsibility for ensuring the correct operation and closure of solid waste facilities in the state. They also have responsibilities for guaranteeing the proper storage and transportation of solid wastes.

Solid Waste Facility Permits (SWFPs) are processed and issued by the LEA with concurrence by CalRecycle. The LEA is the primary contact for the regulation of solid waste handling, processing, or disposal activities, including permitting activities. To determine whether a permit is required for any proposed facility or changes, the LEA should be contacted. The LEA for MDF is the County of Napa, Planning, and Building & Environmental Services.

The regulations for compost facilities are well-defined under California Code of Regulations (CCR) Title 14, Chapter 3.1 that describes operations and facility regulatory requirements for Compostable Material Handling Facilities. Anaerobic digestion (AD) of compostable material is typically regulated under the *Compostable Materials Handling Operations and Facility Requirements*. A compostable material is any organic material that when accumulated with

become active compost, that is, is unstable and will rapidly decompose, generating temperatures of at least 122°F during decomposition, or is releasing carbon dioxide at a rate of at least 15 milligrams per gram of compost per day, or the equivalent of oxygen uptake. Anaerobic digestion of green material at a volume that is more than 12,500 cubic yards of green materials on-site at any time is required to obtain a full *Compostable Materials Handling Facility Permit* pursuant to Title 14, Sections 17854 and 17857.1(b). Anaerobic digestion of any material other than green material that is considered compostable (i.e., food material) requires a full SWFP.

Compostable material handling facilities including anaerobic digestion facilities are required to comply with all the applicable regulatory standards found in Chapter 3.1, Title 14 of CCR. These requirements include development and approval of a *Report of Compost Site Information* and an *Odor Impact Minimization Plan* as part of the permit application package. Each anaerobic digestion site will be required to maintain records and will be required to provide for site restoration.

The existing compost facility is covered under SWFP for a composting facility, SWIS Number 28-AA-0023 and currently accepts residential and commercial green wastes, agricultural wastes, and clean wood. For the facility to collect any amount of food material, the *Report of Composting Site Information* must be revised and submitted to the LEA and CalRecycle for approval that will describe the operations. The *Report of Composting Site Information* will include both the covered compost and the AD operations under one Full SWFP. Since the AD facility utilizes a thermophillic process, it meets the definition of compostable material as indicated in the guidance. This way, if the AD facilities are not operational because of shutdown, malfunction, or maintenance, the food material can still be processed within the covered compost facility. Upon completion of CEQA and land use permitting, the revised *Report of Composting Site Information* should be submitted to the LEA to begin the process as a revision to the existing SWFP.

#### *Solid Waste Facility Permit Revision:*

The Napa County Planning, Building & Environmental Services, acting as the Local Enforcement Agent (LEA) for the California Department of Recycling, Resources and Recovery (CalRecycle) will need to issue a Solid Waste Facility Permit Revision for the Project. CalRecycle, as a Responsible Agency, will need to concur with the Solid Waste Permit Revision within 60 days after being issued by the LEA. The Solid Waste Facility Permit is reviewed every five-years by the LEA

The current operations has two separate Solid Waste Facility Permits and two Enforcement Agency Notifications. The MRF has a SWFP with a permitted capacity of 360 tons per day operating under Solid Waste Facility Permit No. 28-AA-0030. The Compost Facility has a permitted capacity of 200 tons per day operating under Solid Waste Facility Permit No. 28-AA-0023. Green Waste Chipping and Grinding Facility have a permitted capacity of 200 tons per day operating under Enforcement Agency Notification No. 28-AA-0039. Food Waste Composting Research Operations operations under Enforcement Agency Notification No. 28-AA-0030, as a research project that will end soon and be part of the covered compost system. A total of 760 tons per day of waste materials can be accepted under their current permits from a combined 382 vehicles per day. The LEA has the flexibility to permit the Project with one Solid Waste Facility Permit Revision, or a series of Solid Waste Facility Permit, the combined project and peak tonnage and annual tonnage is provided below:

The Project will further integrate technologies where material flow among the operations is intrinsic to address the emerging circular economy. The current material (compost feedstock) flows from the Green Waste Chipping and Grinding Facility to the Compost Facility. and from the MRF (wood waste from C&D) to the Green Waste Chipping and Grinding Facility (to make wood chips). The proposed material flow will be more complicated with feedstocks, wood chips, and digestate moving for operations to operations producing energy and products. In order to streamline enforcement by the LEA, and to not double count materials among the operational areas, one Solid Waste Facility Permit for the entire Project will be pursued. The entitlements from three permitted activities would amount to 760 TPD of material and 386 vehicles per day, as shown in the Table 3 below and referencing the average daily tonnage from Table 1 for current operations and Table 2 below for proposed operations. The Solid Waste Facility Permit is required to place a daily maximum tonnage into the permit, where the waste streams varies on a season basis, where the daily maximum tonnages is typically 1.3 times greater than the average daily tonnage, as expressed in the Table 3 below.

**Table 2 - Estimated Annual and Daily Tonnages – Proposed Operations**

| Material Type | Covered Aerated<br>Static Pile | Anaerobic<br>Digestion | Biomass<br>Gasification | Total<br>(TPY) |
|---------------|--------------------------------|------------------------|-------------------------|----------------|
|---------------|--------------------------------|------------------------|-------------------------|----------------|

|                                                       | (CASP)<br>(TPY) | (ADST)<br>(TPY) | (TPY)  |         |
|-------------------------------------------------------|-----------------|-----------------|--------|---------|
| Total – Tons Per Year (TPY)                           | 30,000          | 20,000          | 11,500 | 61,500  |
| Total - Tons Per Day (M-F) Typical<br>inbound average | 115 TPD         | 77 TPD          | 44 TPD | 236 TPD |

**Table 3 - Permit Limits for Current and Proposed Operations**

| Facility                                      | Current<br>Solid Waste<br>Facility Permit limits<br>Napa MDF | Proposed<br>Napa Renewable Resources<br>Project                                                                                    | Combined<br>Solid Waste Facility<br>Permit                                                                                |
|-----------------------------------------------|--------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------|
| Material Recovery Facility                    | 360 TPD peak<br>SWFP 28-AA-0030                              | 154 TPD ave recyclables<br>(40,000 TPY)<br>115 TPD ave C&D<br>(30,000 TPY)<br><br><b>269 TPD ave. total</b><br><b>360 TPD peak</b> | One Solid Waste<br>Facility Permit to<br>combine the three<br>previous permits for<br>760 TPD and 386<br>vehicles per day |
| Compost Facility                              | 200 TPD peak<br>SWFP 28-AA-0023.                             | 115 TPD ave AD<br>(20,000 TPY)<br>77 TPD ave CASP<br>(30,000 TPY)                                                                  |                                                                                                                           |
| Green Waste Chipping and<br>Grinding Facility | 200 TPD peak<br>SWFP 28-AA-0039.                             | 44 TPD ave Biomass<br>(11,500 TPY)<br>64 TPD Windrow<br>(16,640 TPY)                                                               |                                                                                                                           |
|                                               |                                                              | <b>300 TPD ave total</b><br><b>400 TPD peak</b>                                                                                    |                                                                                                                           |
|                                               | 760 TPD                                                      | No increase in peak daily tons<br>or peak daily traffic for the<br>Project                                                         | 760 TPD<br>386 VPD                                                                                                        |

### **State Water Resources Control Board and Regional Water Quality Control Board**

The State Water Board's duty is to protect water quality by setting statewide policy, developing regulations, coordinating and supporting regional Water Board efforts, and reviewing petitions that contest regional Water Board actions. The regional Water Boards implement the regulations developed by the State Water Board by issuing NPDES permits and Water Discharge Requirements (WDR)s, as discussed below.

#### ***Waste Discharge Requirements***

Pursuant to the Porter-Cologne Water Quality Control Act, the Water Boards establish Water Quality Objectives (WQOs) for the purpose of protecting beneficial uses. Under authority of the Porter-Cologne Water Quality Control Act, the Water Board requires persons who discharge or propose to discharge waste that could affect the quality of waters of the State to file a *Report of Waste Discharge* with the appropriate Water Board. The Water Board then issues or waives WDRs for the discharge. WDRs usually include discharge prohibitions and discharge specifications including flow volumes and water quality constituent limitations to which a discharger must adhere. WDRs usually impose water quality monitoring requirements, and may require liner systems or other engineered features.

On July 17, 1996, the San Francisco Bay Region Water Board adopted Order No. 96-098 *Conditional Waiver of Waste Discharge Requirements for Composting Operations*. Order No. 96-098 waived WDRs for discharge of green waste, food processing waste, agricultural waste, or paper waste to land for composting. For operations that process over 500 cubic yards at any given time, the applicant is required to submit a *Report of Waste Discharge* documenting compliance with the Order; submit either a *Notice of Intent* to comply with the General Industrial Permit or site-specific NPDES discharge permit; and continue to comply with the conditions set forth in the Order. The Order remains in effect until such time as it is rescinded.

The conditional waiver for composting facilities was in effect until 2003, when a change in law required all waivers to be either renewed or replaced with WDRs. The State Water Board is currently developing a statewide general order with substantive conditions that would address water quality protection at composting facilities that currently exist or may be constructed. In order to be covered by the statewide order, composting facilities must meet siting and on-site waste type criteria and implement specific water quality protection measures such as liners and berms. Under the draft concepts for the statewide order, existing eligible facilities will be required to submit a *Report of Waste Discharge* within 90 days from the adoption of the statewide order. Since the existing compost facility was covered under a waiver and has a volume equal to or greater than 12,500 cubic yards of materials (proposed concept limit) held onsite at any given time, the City will be required to submit a *Report of Waste Discharge* within 90 days of adoption of the statewide order.

The State Water Board completed a series of informal workshops with stakeholders to discuss the draft concepts. The State Water Board anticipates releasing a draft of the statewide order sometime in 2012. The major changes anticipated for the MDF property is with regards to the storm water and leachate collection and treatment. The statewide order will only address waste discharge to land, including leachate, within the permitted property boundary and will require improved pad surfaces and lined containment ponds or storage tanks. Discharge of wastewater (i.e., water with waste constituents) or waste off-site is not covered under this Order. Any discharges off-site would require a separate NPDES permit as required under the federal Clean Water Act.

#### *National Pollutant Discharge Elimination System*

The federal Clean Water Act (CWA) established the basic structure for regulating municipal and industrial discharges to surface waters of the United States. In California, the State Water Board oversees the NPDES program, which is administered by the regional Water Boards. The NPDES program provides for both general permits (those that cover a number of similar or related activities) and individual permits. Each Water Board has prepared water quality control plans (commonly referred to as Basin Plans) for relevant large scale watersheds or basins within its purview. These plans identify the existing and potential beneficial uses of waters of the State and establish WQOs to protect these uses. As such, California's Basin Plans serve as regulatory references for meeting both State and federal requirements for water quality control (40 CFR Parts 130 and 131).

#### **General Industrial Permit**

The MDF property (both the compost and MRF operations) is currently covered under Water Quality Order No. 97-03-DWQ NPDES General Permit No. CAS000001 *Waste Discharge Requirements for Discharges of Storm water Associated with Industrial Activities Excluding Construction Activities*. The General Permit generally requires facility operators to eliminate unauthorized non-storm water discharges; develop and implement a storm water pollution prevention plan; and perform monitoring of storm water discharges and authorized non-storm water discharges. Storm water that is covered under this permit includes discharge from any conveyance which is used for collecting and conveying storm water and which is directly related to manufacturing, processing, or raw material storage areas at an industrial plant. Material handling activities include the storage, loading and unloading, transportation, or conveyance of any raw materials, intermediate product, finished product, by-product, or waste product. The term excludes areas located on lands separate from the industrial activities, such as office buildings and accompanying parking lots as long as the drainage from the excluded areas is not mixed with storm water drained from the above described areas.

The design assumes separation of leachate or wastewater from the composting process including storm water in contact with the material in the active composting area. The intent is to remove the wastewater component from mixing with storm water in order for the site to maintain coverage under General Industrial Permit. Should the new statewide order classifies any storm water in contact with feedstock or processed materials as wastewater, then a site specific NPDES permit for discharge of wastewater may be necessary if detention ponds cannot be built to maintain all collected leachate and contact storm water on-site.

#### **Individual NPDES Discharge Permit**

For an individual NPDES discharge permit, the process begins with submittal of an application to the Water Board. The application must describe the wastes to be discharged, the setting for the discharge, and the method of treatment or containment. Once the application is deemed complete, if not denied, the State Water Board or Water Board will draft the permit, which must be adopted by the State Water Board or Water Board before any discharge can occur. The permit issuance process takes approximately 6 months, but may take longer depending upon the nature of the discharge.

The NPDES permit will be based on the San Francisco Bay Region Basin Plan. From the current Report of Composting Site Information (RCSI), facility drainage flows to Fagan Creek through man-made and natural channels. Fagan Creek flows around the Napa County Airport and then into Fagan Slough, a tributary of the Napa River (Napa Garbage Service, 2004). Fagan Creek and the Napa River are part of the San Pablo Basin. Existing beneficial uses for Fagan Creek are warm freshwater habitat (WARM), wildlife habitat (WILD), water contact recreation (REC-1), and noncontact water recreation (REC-2). The WQOs for these surface waters include bacteria, bioaccumulation, biostimulatory substances, color, dissolved oxygen, floating material, oil and grease, pH, toxic substances, salinity, sediment, settleable material, suspended materials, sulfides, taste and odor, temperature, toxicity, turbidity, un-ionized ammonia, and some selected toxic pollutants. The NPDES permit will include permit conditions and effluent limits to meet these WQOs.

### **Construction General Permit**

In addition to the WDRs, NPDES General Industrial, and NPDES individual discharge permits, the owner would also be responsible for obtaining coverage under the *General Permit for Discharges of Storm water Associated with Construction Activity Construction General Permit Order 2009-0009-DWQ* (Construction General Permit) for disturbing 1 or more acres of soil either separately or part of a larger common project by construction staging whose total exceeds 1 or more acres. The Construction General Permit includes clearing, grading and disturbances to the ground such as stockpiling, or excavation, but does not include regular maintenance activities performed to restore the original line, grade, or capacity of the facility.

The Construction General Permit requires the development and implementation of a Stormwater Pollution Prevention Plan (SWPPP). The SWPPP should contain a site map(s) which shows the construction site perimeter, existing and proposed buildings, lots, roadways, storm water collection and discharge points, general topography both before and after construction, and drainage patterns across the project. The SWPPP must list Best Management Practices (BMPs) the discharger will use to protect storm water runoff and the placement of those BMPs. Additionally, the SWPPP must contain a visual monitoring program; a chemical monitoring program for "non-visible" pollutants to be implemented if there is a failure of BMPs; and a sediment monitoring plan if the site discharges directly to a water body listed on the 303(d) list for sediment. Section A of the Construction General Permit describes the elements that must be contained in a SWPPP.

The appropriate Legally Responsible Person (LRP) must obtain coverage under this General Permit. To obtain coverage, the LRP or the LRP's Approved Signatory must file Permit Registration Documents (PRDs) prior to the commencement of construction activity. LRPs must also file a Notice of Termination (NOT) with the Water Board when construction is complete and final stabilization has been reached or ownership has been transferred. The LRP must certify that all State and local requirements have been met in accordance with this General Construction Permit. In order for construction to be found complete, the LRP must install post-construction storm water management measures and establish a long-term maintenance plan. The discharger is responsible for all compliance issues including all annual fees until the NOT has been filed and approved by the local Water Board.

### **Bay Area Air Quality Management District**

BAAQMD is the regional, government agency that regulates sources of air pollution within the nine San Francisco Bay Counties including Alameda, Contra Costa, Marin, Napa, San Francisco, San Mateo, Santa Clara, southwestern Solano, and southern Sonoma. Any person or facility that puts in place, builds, erects, installs, modifies, modernizes, alters or replaces any article, machine, equipment or other contrivance, the use of which may cause, reduce or control the emission of air contaminants, shall first secure written authorization from the BAAQMD in the form of an *Authority to Construct*, unless the source is specifically excluded or exempt from permit requirements. BAAQMD permit process is a pre-construction review and approval process. BAAQMD review is conducted after the equipment is designed, but before it is installed. The pre-construction review for new and modified sources applies to both stationary and portable sources of emissions that do not qualify for a permit exemption.

A new permit will be required for the aerated static pile and anaerobic digestion operations along with associated biogas treatment options and energy recovery devices (CNG and microturbines). BAAQMD will require that a permit application for an *Authority to Construct* be submitted to the Engineering Division for the project. The act of changing the operation from windrow to covered compost system and AD will result in an overall emission reduction to the facility as prescribed in the existing facility permit. The new covered compost system and AD emissions will be compared against the windrow operation (baseline) when determining emission offset requirements. Offsets are required if the proposed changes result in an increase of VOC emissions of 35 tpy from the baseline per Regulation



2-2-302. Since the covered compost system and AD systems will emit less VOC emissions, the emissions will be offset by the decreasing the windrow process.

Before constructing the new facility, the applicant must submit the following forms:

- P-101B – Application for an Authority to Construct/Permit to Operate
- Data Form G – General Air Pollution Source
- Data Form A – Abatement Device (biofilters and biogas treatment and control)
- HRSA – Health risk screening assessment for abatement devices

BAAQMD will evaluate the application in accordance with District Rules and Title V. A major facility is defined as facility with the potential to emit pollutants equal to or greater than one or more major source thresholds as follows:

- 100 tpy of a criteria air pollutant (nitrogen oxides, sulfur oxides, lead, VOC, carbon monoxide, or particulate matter)
- 10 tpy of a hazardous air pollutant (HAP)
- 25 tpy of any combination of HAPS

In addition, best available control technology is required for projects whose VOC emissions exceed 10 pound per day. For compost facilities, the concern has primarily been on emissions of VOCs (also known as reactive organic gasses or non-methane organic compounds). BAAQMD has not established emission factors for compost facilities, however has referenced VOC emissions data from South Coast Air Quality Management District (SCAQMD) Rule 1133.3 adopted July 8, 2011 for other projects. Rule 1133.3 assumes baseline emission factors of 4.25 pounds of VOC per ton of throughput and 0.46 pounds of ammonia per ton of throughput for the active phase of composting only.

**ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED:**

The environmental factors checked below would be potentially affected by this project, involving at least one impact that is a "Potentially Significant Impact" as indicated by the checklist on the following pages. This initial study prescribes mitigation measures to reduce all potentially significant impacts to a less than significant level.

- |                                                   |                                                                   |                                                               |
|---------------------------------------------------|-------------------------------------------------------------------|---------------------------------------------------------------|
| <input type="checkbox"/> Aesthetics               | <input type="checkbox"/> Agriculture & Forestry Resources         | <input checked="" type="checkbox"/> Air Quality               |
| <input type="checkbox"/> Biological Resources     | <input type="checkbox"/> Cultural Resources                       | <input type="checkbox"/> Geology & Soils                      |
| <input type="checkbox"/> Greenhouse Gas Emissions | <input checked="" type="checkbox"/> Hazards & Hazardous Materials | <input checked="" type="checkbox"/> Hydrology & Water Quality |
| <input type="checkbox"/> Land Use & Planning      | <input type="checkbox"/> Mineral Resources                        | <input type="checkbox"/> Noise                                |
| <input type="checkbox"/> Population & Housing     | <input type="checkbox"/> Public Services                          | <input type="checkbox"/> Recreation                           |
| <input type="checkbox"/> Transportation & Traffic | <input type="checkbox"/> Utilities & Service Systems              | <input type="checkbox"/> Mandatory Findings of Significance   |

**CEQA DETERMINATION:**

- ☐ The proposed project COULD NOT have a significant effect on the environment and a NEGATIVE DECLARATION will be prepared.
- ☒ Although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.
- ☐ The proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.
- ☐ The proposed project MAY have a significant effect(s) on the environment, but at least one effect: 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards; and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets, if the effect is a "potentially significant impact" or "potentially significant unless mitigated." An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.
- ☐ Although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

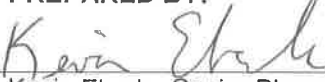
**FISH AND GAME FEE DETERMINATION:**

Based on the information in this initial evaluation, analysis has been necessary to determine if wildlife resources or the habitat upon which they depend may be impacted. The following has been determined: The project would not result in or have the potential to result in harm, harassment, or take of any fish and/or wildlife species. "Take" means hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill (FGC § 86). "Wildlife" means and includes all wild animals, birds, plants, fish, amphibians, and related ecological communities, including the habitat upon which the wildlife depends for its continued viability (FGC § 711.2).

- The project would not result in or have the potential to result in direct or indirect destruction, ground disturbance, or other modification of any habitat that may support fish and/or wildlife species.
- The project would not result in or have the potential to result in the removal of vegetation with potential to support wildlife.
- The project would not result in or have the potential to result in noise, vibration, dust, light, pollution, or an alteration in water quality that may affect fish and/or wildlife directly or from a distance.
- The project would not result in or have the potential to result in any interference with the movement of any fish and/or wildlife species.

**A Notice of Negative Declaration will be prepared and posted for the period of September 18, 2013 to October 17, 2013.**

**PREPARED BY:**

  
Kevin Eberle, Senior Planner  
City of Napa

Date

9/16/13

**ENVIRONMENTAL CHECKLIST:**

| Environmental Issue Area                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Potentially Significant Impact, Unmitigated | Potentially Significant Impact, Mitigated | Less Than Significant Impact | No Impact |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------|-------------------------------------------|------------------------------|-----------|
| <b>I. AESTHETICS. <i>Would the project:</i></b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                             |                                           |                              |           |
| a. Have a substantial adverse effect on a scenic vista?                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                             |                                           |                              | X         |
| b. Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                             |                                           |                              | X         |
| c. Substantially degrade the existing visual character or quality of the site and its surroundings?                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                             |                                           |                              | X         |
| d. Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                             |                                           |                              | X         |
| <p><b>Discussion:</b><br/> The project site is already fully developed with industrial facilities associated with the City's Materials Diversion Facility, including a materials recycling building, administration office, scale house, outdoor composting area, outdoor finished compost storage area, outdoor soils stockpile area, and outdoor concrete recycling area. The construction of new structures and placement of new equipment associated with the new anaerobic digestion facility, the new covered composting, the new biomass gasification unit, stormwater treatment ponds, and rooftop solar panels will not adversely change the existing visual character of the site. The new biomass gasification unit will be painted an earth tone color. As such, the project does not have any potential to impact scenic resources, degrade visual quality or create a new source of substantial light and glare.</p> <p><b>Mitigation Measures:</b><br/> None.</p> <p><b>Conclusion:</b><br/> No impact to aesthetics.</p> |                                             |                                           |                              |           |
| <b>II. AGRICULTURAL &amp; FOREST RESOURCES. <i>Would the project:</i></b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                             |                                           |                              |           |
| a. Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                             |                                           |                              | X         |
| b. Conflict with existing zoning for agricultural use or a Williamson Act Contract?                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                             |                                           |                              | X         |
| c. Conflict with existing zoning for, or cause rezoning of, forest land, timberland, or timberland zoned Timberland Production?                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                             |                                           |                              | X         |
| d. Result in the loss of forest land or conversion of forest land to non-forest use?                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                             |                                           |                              | X         |
| e. Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland to non-agricultural use or conversion of forest land to non-forest use?                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                             |                                           |                              | X         |
| <p><b>Discussion:</b><br/> The project site is already fully developed with industrial facilities associated with the City's Materials Diversion Facility, and contains no Prime Farmland, Unique Farmland, or Farmland of Statewide Importance as mapped by the State of California. The project site is not under a Williamson Act Contract. No loss of forest land or conversion of forest land to non-forest use will occur. There is no agricultural or forest land on or adjacent to the project site. As such, there will be no impact to agricultural or forest resources.</p> <p><b>Mitigation Measures:</b><br/> None.</p> <p><b>Conclusion:</b><br/> No impact to agricultural or forest resources.</p>                                                                                                                                                                                                                                                                                                                       |                                             |                                           |                              |           |

| Environmental Issue Area                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Potentially Significant Impact, Unmitigated | Potentially Significant Impact, Mitigated | Less Than Significant Impact | No Impact |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------|-------------------------------------------|------------------------------|-----------|
| <b>III. AIR QUALITY. [Significance criteria established by the BAAQMD may be relied upon to make the following determinations] <i>Would the project:</i></b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                             |                                           |                              |           |
| a. Conflict with or obstruct implementation of the applicable air quality plan?                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                             |                                           |                              | X         |
| b. Violate any air quality standard or contribute substantially to an existing or projected air quality violation?                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                             |                                           | X                            |           |
| c. Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                             |                                           | X                            |           |
| d. Expose sensitive receptors to substantial pollutant concentrations?                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                             |                                           |                              | X         |
| e. Create objectionable odors affecting a substantial number of people?                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                             |                                           | X                            |           |
| <b><u>Discussion:</u></b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                             |                                           |                              |           |
| <p>The existing facility operations consist of open windrow composting of about 40,000 tons of organic material per year, as well as the provision of 8,500 tons per year to off-site biomass facilities for electricity generation. Food waste is not currently diverted from landfill disposal.</p> <p><b>Emissions:</b> The proposed project consists of composting 30,000 tons per year, but in a covered aerated static pile system with exhaust gases subject to biofiltration. In addition, 20,000 tons per year are proposed to be anaerobically digested, producing biogas that will be processed into a low carbon transportation fuel. Another 1,500 tons per year of waste wood will be used as fuel in a biomass gasifier to generate biogenic electricity.</p> <p>Forced aeration in the covered aerated static pile system can be either positive (i.e. air is blown into the piles) or negative (i.e. air is sucked from the piles). If using a layer of stable, carbonaceous material, such as finished compost or compost overs, to cover the windrow in lieu of a synthetic cover, a six to 12-inch layer would be placed with front end loaders or other equipment. When positive aeration is used, the layer of stable, carbonaceous material serves as the biofilter. The South Coast Air Quality Management District, in Rule 1133, requires a 6-inch layer of such material. A recent CalRecycle study, funded by the San Joaquin Valley Technology Advancement Program, (Greenwaste Compost Site, Emissions Reductions from Solar-powered Aeration and Biofilter Layer, 5/14/2013) investigated the emissions control capacity of using a 12-inch layer of finished compost as a biofilter.</p> <p>The comparison of emissions from the 22-day active composting phase between the positive aeration system and standard windrows in the CalRecycle study demonstrated emissions reductions of 99% for total non-methane, non-ethane VOCs, 70% for ammonia (average of field (88.3% reduction), and lab (53.2% reduction)), 88% for nitrous oxide, and 13% for methane.</p> <p>An Emissions Estimate Report dated February 11, 2013 was prepared for the project by Edgar and Associates, Inc., and is included as a part of this Initial Study in Attachment 7 and used the negative aeration system as part of the analysis, which is considered to be a more conservative approach. The CH2Hill Report provides additional supportive information on the comparison of the baseline emission (windrow, no control) to the proposed covered compost system (with 80% emission control) which is also based on a negative aeration system. A positive aeration system has recently been shown to be more effective in reducing emissions.</p> <p>Emissions are estimated for the existing (baseline scenario) and the proposed project. To estimate fugitive compost emissions, emission factors from the South Coast Air Quality Management District are used for VOCs, and emission factors from the California Air Resources Board are used for greenhouse gases (methane and carbon dioxide). Destruction efficiencies for VOCs, ammonia and greenhouse gases in the proposed project are</p> |                                             |                                           |                              |           |

## Environmental Issue Area

Potentially  
Significant  
Impact,  
Unmitigated

Potentially  
Significant  
Impact,  
Mitigated

Less Than  
Significant  
Impact

No  
Impact

based on accepted factors for biofiltration. Criteria pollutant emissions are estimated for the internal combustion engine that would operate on the Syngas fuel from the biomass gasification unit, based on an Authority to Construct prepared by the San Joaquin Valley Air Pollution Control District for a similar facility. A microturbine is proposed as part of the biogas purification system and will also generate criteria pollutants, which are estimated using emission factors from Capstone Microturbine.

The diversion of food waste from landfill disposal under the current project to anaerobic digestion with the proposed project will avoid landfill emissions of greenhouse gases and VOCs. These are estimated using the USEPA LandGem model and a VOC emission factor from USEPA AP-42. Greenhouse gas benefits of using compost in agriculture are also estimated using emission factors from the California Air Resources Board. None of the emissions exceed the Bay Area Air Quality Management District threshold of significance, either for an annual or daily basis. The following table provides the results of the analysis.

The following table provides the results of the analysis for negative air system for composting.

**Project vs. Baseline Emissions Comparison (tons per year - TPY)**

| Constituent                        | Baseline | Proposed | Change<br>(baseline –<br>proposed) | BAAQMD<br>Thresholds of<br>Significance |
|------------------------------------|----------|----------|------------------------------------|-----------------------------------------|
| VOCs (tons per year)               | 86.2     | 25.5     | 60.7 reduction                     | 10                                      |
| Ammonia (tons per year)            | 9.2      | 6.6      | 2.6 reduction                      | -                                       |
| Carbon Monoxide<br>(tons per year) | 0        | 7.7      | 7.7 increase                       | 9 ppm (8-hour)<br>20 ppm (1-hour)       |
| NOx (tons per year)                | 0        | 1.8      | 1.8 increase                       | 10                                      |
| PM10 (tons per year)               | 0        | 0.65     | 0.65 increase                      | 15                                      |
| SOx (tons per year)                | 0        | 0.81     | 0.81 increase                      | 0.04 ppm (24-hour)<br>0.25 ppm (1-hour) |

- The BAAQMD attainment status for CO and SO<sub>2</sub> is "attained" and district-specific significance thresholds have not been set. The values provided in ppm are the California Ambient Air Quality Standards.
- Annual landfill VOC and GHG emissions change yearly (baseline). Values provided in Table 9 are based on the average annual amounts over the first 12 years.
- Pollutants from mobile equipment are not included.
- Baseline project emissions from stationary and mobile equipment are not included, although equipment using diesel currently operates at the site. The proposed project will convert stationary equipment to electricity provided by the Biomass Gasification Unit. Therefore, overall emissions of CO, NO<sub>x</sub>, PM and SO<sub>x</sub> should decrease.

The Facility currently emits 35 TPY of VOCs and would be required to provide off-sets for any emission increases from any stationary source pursuant to BAAQMD Regulation 2-2-302. However, since the Facility will be replacing the current windrow operations while increasing throughput, the Facility will experience a net decrease in emission from the project baseline of 86.2 TPY of VOCs to just 25.5 TPY of VOCs. The negative air biofilter is consider a Best Available control Technology (BACT) in the San Joaquin Valley Air Pollution Control District, where there is an overall 80% reduction of VOCs, and was used in the analysis.

A prototype commercial-scale positive aerated static pile compost system was placed on a foundation of aeration pipes and coarse-ground woody material, and was capped with a 1-foot-thick layer of finished, unscreened compost acting as a biofilter. There is an overall 98% reduction of VOC in that case study recently conducted in the the San Joaquin Valley Air Pollution Control District. The positive aeration system may be used instead of the negative aeration system, but for the purposes of the analysis, the more conservative VOCs emissions reductions are used in the analysis.

None of the emissions exceed the Bay Area Air Quality Management District threshold of significance, either for an annual or daily basis. As such, the project will not have any significant impacts on air quality.

Deploying biofilters with state-of-the art technology at the Anaerobic Digestion Facility and the Covered Aerated Static Pile Composting System is providing design features as part of the Project that significantly decreases VOCs.

| Environmental Issue Area                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Potentially Significant Impact, Unmitigated | Potentially Significant Impact, Mitigated | Less Than Significant Impact | No Impact |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------|-------------------------------------------|------------------------------|-----------|
| <p><b>Odors:</b> Odors are generally regarded as an annoyance rather than a health hazard. Manifestation of a person's reaction ranges from psychological (e.g., irritation, anger, or anxiety) to physiological (e.g., circulatory and respiratory effects, nausea, vomiting and headache). The ability to detect odors varies considerably among population and overall is quite subjective. People may have the same reaction to the same odor. Odor impacts should be considered for any new proposed odor sources located near any existing receptors, as well as any new sensitive receptors located near existing odor sources. The storage and transfer of green waste and food waste materials during the anaerobic digestion and composting processes of the project would be a potential source of odor at the adjacent land uses. Without adequate procedures and controls the odors from the feedstock materials could generate very strong odors. Composting facilities which are regulated by CalRecycle are required to have Odor Impact Minimization Plans (OIMP). The OIMP includes two major components, a Complaint Response Protocol and an Odor Complaint Reporting Format.</p> <p>As stated in the CH2M Hill Report, the primary focuses of the proposed changes to the Napa MDF is to contain odors. Odor management considerations include the following:</p> <ul style="list-style-type: none"> <li>• Reducing the time materials are stockpiled before processing</li> <li>• Unloading and processing of fresh organic wastes are performed under cover within a building</li> <li>• Performing the digesting within vessels that contain and treat emissions during heating and active biological decomposition</li> <li>• Biofiltration treatment of air that is collected from receiving buildings and decomposition processes</li> <li>• Cleaning traffic areas of any spilled or tracked materials</li> <li>• Aeration of collected water that has a high biological demand.</li> </ul> <p>Odor is significantly minimized after the active decomposition phase through the design of facilities that are in vessel and use bio-filter technologies.</p> <p>The OIMP protocol includes measures to identify odors and require appropriate adjustments to storage, process control, and facility improvements to reduce odors. Implementation of Mitigation Measure AIR-1 would apply odor control measures to the Project, which would reduce impacts to be less-than-significant level.</p> <p><b>Mitigation Measures:</b><br/>Project design significantly decreases VOCs and minimizes odors with bio-filtration.</p> <p>Mitigation Measure (AIR-1): The applicant shall develop and comply with an Odor Impact Minimization Plan (OIMP). A copy of the OIMP is provided in Attachment 11.</p> <p><b>Conclusion:</b><br/>No impacts on air quality.</p> |                                             |                                           |                              |           |
| <b>IV. BIOLOGICAL RESOURCES. Would the proposal result in:</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                             |                                           |                              |           |
| a. Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game (CDFG) or U.S. Fish and Wildlife Service (USFWS)?                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                             |                                           |                              | X         |
| b. Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, and regulations or by the CDFG or USFWS?                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                             |                                           |                              | X         |
| c. Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, etc.) through direct removal, filling, hydrological interruption, or other means?                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                             |                                           |                              | X         |
| d. Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                             |                                           |                              | X         |

| Environmental Issue Area                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Potentially Significant Impact, Unmitigated | Potentially Significant Impact, Mitigated | Less Than Significant Impact | No Impact |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------|-------------------------------------------|------------------------------|-----------|
| resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                             |                                           |                              |           |
| e. Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                             |                                           |                              | X         |
| f. Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?                                                                                                                                                                                                                                                                                                                                                                                                                            |                                             |                                           |                              | X         |
| <p><b>Discussion:</b><br/>The proposed project is located on an existing industrially developed site surrounded by industrial development and Napa County Airport properties. There is no biological habitat on the project site. As such, the project will not impact state or federally listed species, riparian habitat, wetlands, sensitive natural communities, migratory fish or wildlife species, adopted Habitat Conservation Plan, Natural Community Plan, trees, or marine animals.</p> <p><b>Mitigation Measures:</b><br/>None.</p> <p><b>Conclusion:</b><br/>No impact to biological resources.</p> |                                             |                                           |                              |           |
| <b>V. CULTURAL RESOURCES. Would the project:</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                             |                                           |                              |           |
| a. Cause a substantial adverse change in the significance of an historical resource as defined in Sec.15064.5?                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                             |                                           |                              | X         |
| b. Cause a substantial adverse change in the significance of an archaeological resource pursuant to Sec. 15064.5?                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                             |                                           |                              | X         |
| c. Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                             |                                           | X                            |           |
| d. Disturb any human remains, including those interred outside of formal cemeteries?                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                             |                                           | X                            |           |
| <p><b>Discussion:</b><br/>The project site is already fully developed, and as such no surface historical or archaeological resources are known to exist. An archaeological report entitled <i>Napa Airport Master Environmental Assessment</i> was prepared for property that included the project site, and found that there were no archaeological resources on the project site. As such, the project will not have any significant impacts on archaeological resources.</p> <p><b>Mitigation Measures:</b><br/>None required.</p> <p><b>Conclusion:</b><br/>No impacts on archaeological resources.</p>     |                                             |                                           |                              |           |
| <b>VI. GEOLOGY &amp; SOILS. Would the project:</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                             |                                           |                              |           |
| a. Expose people or structures to potential substantial adverse effects, including the risk of loss, injury or death involving                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                             |                                           |                              |           |
| i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area, or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Pub. 42                                                                                                                                                                                                                                                                                                                                 |                                             |                                           |                              | X         |
| ii) Strong seismic ground shaking?                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                             |                                           |                              | X         |
| iii) Seismic-related ground failure, including liquefaction?                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                             |                                           |                              | X         |
| iv) Landslides?                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                             |                                           |                              | X         |
| b. Result in substantial soil erosion or the loss of topsoil?                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                             |                                           |                              | X         |
| c. Be located on a geologic unit or soil that is unstable, or that                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                             |                                           |                              | X         |

| Environmental Issue Area                                                                                                                                                             | Potentially Significant Impact, Unmitigated | Potentially Significant Impact, Mitigated | Less Than Significant Impact | No Impact |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------|-------------------------------------------|------------------------------|-----------|
| would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse)?                     |                                             |                                           |                              |           |
| d. Be located on expansive soil, as defined in Table 18-1B of the Uniform Building Code (1994), creating substantial risks to life or property?                                      |                                             |                                           |                              | X         |
| e. Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water? |                                             |                                           |                              | X         |

**Discussion:**

According to the Geologic Hazards Map on file with the City of Napa Planning Department, the subject property is not located in an Alquist Priolo Special Studies Zone (a recognized seismic hazard area). The fault-line surface rupture would not be a substantial hazard at the project site because the closest faults to the project do not present any risk to people or structures. However, the project site's location within the San Francisco Bay Area subjects it to potential ground shaking in the event of an earthquake. There are no known geological conditions on site that would subject buildings to unstable soil conditions. Compliance with construction provisions set forth in the City of Napa Public Works Department Standard Specifications and the Uniform Building Code will further assure that geologic impacts are less than significant.

**Mitigation Measures:**

None required.

**Conclusion:**

No impacts to geology and soils.

**VII. GREENHOUSE GAS EMISSIONS. Would the project:**

|                                                                                                                                   |  |  |  |   |
|-----------------------------------------------------------------------------------------------------------------------------------|--|--|--|---|
| a. Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?       |  |  |  | X |
| b. Conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases? |  |  |  | X |

**Discussion:**

An Emissions Estimate Report dated February 11, 2013 was prepared for the project by Edgar and Associates, Inc., and is included as a part of this Initial Study in Attachment 7.

The California Air Resources Board (CARB) developed an estimate of greenhouse gas emissions avoided through the use of compost in agriculture. The CARB avoided emissions from agricultural compost use are provided in Table 6 of the Edgar Report. CARB assumed a reduction of organic material mass of 50% during the compost process; i.e. one ton of feedstock produces one half ton of compost.

The proposed facility will receive 50,000 tons of organics that will ultimately be used to produce soil amendments. Of this, 12,500 tons is food waste, and following the same explanation previously put forth, it is assumed that it would have been landfilled in the absence of the project. All agricultural compost users would realize the benefit of increased carbon storage and probably decreased water use, as well. The other three sources of decreased greenhouse gas emissions are less certain; therefore, the emission reduction used in this analysis is 0.28 MTCO<sub>2</sub>e per ton of feedstock. The following table provides the results of the analysis.

**Project vs. Baseline Emissions Comparison (tons per year)**

| Constituent                | Baseline | Proposed                    | Change (baseline – proposed)  | BAAQMD Thresholds of Significance                                                               |
|----------------------------|----------|-----------------------------|-------------------------------|-------------------------------------------------------------------------------------------------|
| GHGs (MTCO <sub>2</sub> e) | 5,594    | 363 emitted (3,500) avoided | 5,231 reduction (w/o avoided) | Compliance with Qualified Greenhouse Gas Reduction Strategy or 1,100 MT of CO <sub>2</sub> e/yr |



| Environmental Issue Area                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Potentially Significant Impact, Unmitigated | Potentially Significant Impact, Mitigated | Less Than Significant Impact | No Impact |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------|-------------------------------------------|------------------------------|-----------|
| <p>The report found that the project would be consistent with all threshold levels for emissions established by the Bay Area Air Quality Management District, and that the project would have an overall <u>reduction</u> in greenhouse gas emissions. As such, the project will not result in any impacts to greenhouse gases.</p> <p>Over 5,000 MTCO<sub>2</sub>e of greenhouse gases will be avoided with this Project by taking food waste from landfilling and deploying state-of-the art technology with the Anaerobic Digestion Facility and the Covered Aerated Static Pile Composting System. Providing state-of-the art technology as part of the Project significantly decreases greenhouse gas emissions.</p> <p><b>Mitigation Measures:</b><br/>None required - Project design significantly decreases greenhouse gas emissions.</p> <p><b>Conclusion:</b><br/>No impacts to greenhouse gases.</p> |                                             |                                           |                              |           |
| <b>VIII. HAZARDS &amp; HAZARDOUS MATERIALS. <i>Would the project:</i></b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                             |                                           |                              |           |
| a. Create a significant hazard to the public or the environment through the routing transport, use or disposal of hazardous materials?                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                             |                                           | X                            |           |
| b. Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                             | X                                         |                              |           |
| c. Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                             |                                           |                              | X         |
| d. Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                             |                                           |                              | X         |
| e. For a project located within an airport land use plan, would the project result in a safety hazard for people residing or working in the project area?                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                             | X                                         |                              |           |
| f. For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                             |                                           |                              | X         |
| g. Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                             |                                           |                              | X         |
| h. Expose people or structures to a significant risk of loss, injury or death involving wild land fires, including where wild lands are adjacent to urbanized areas or where residences are intermixed with wild lands?                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                             |                                           |                              | X         |
| <p><b>Discussion:</b><br/>There are numerous State and federal laws which regulate the transport, use, storage and handling of hazardous materials. Among these regulations is a requirement for the operator to file a Hazardous Materials Business Plan with the Napa County Department of Environmental Services. Given this existing level of regulation, no impacts related to the transport, use, storage and handling of hazardous materials are anticipated.</p> <p>The project site borders the east boundary of the Napa County Airport property, and is within the boundaries of the Napa Airport Land Use Compatibility Plan (ALUCP). The vast majority of project site is within Compatibility Zone D (Common Traffic Pattern), with a very small sliver of the property in the northwest corner of the site</p>                                                                                   |                                             |                                           |                              |           |

| Environmental Issue Area                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Potentially Significant Impact, Unmitigated | Potentially Significant Impact, Mitigated | Less Than Significant Impact | No Impact |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------|-------------------------------------------|------------------------------|-----------|
| <p>falling within Compatibility Zone A (Runway Protection Zone). With the exception of some stormwater treatment facilities in the northwest corner of the property, the proposed improvements are all located in Zone D. The ALUCP indicates that most non-residential uses are normally acceptable in Zone D, with the exception of schools, libraries, hospitals, nursing homes, large shopping malls, amphitheaters, and ponds. Ponds are also listed as not normally acceptable in Zone A. Ponds are a concern due to their potential to attract birds. The area proposed for the new ponds are in area where ponds and bioswales have pre-existing for many years. There have been no reports of bird hazards associated with the ponds from Airport personnel in the many years that they have existed on the site.</p> <p>Feedstock also has potential to be a bird attractor; however, feedstock is proposed to be stored and processed in enclosed containers and systems. These provisions for handling feedstock are reiterated in the mitigation measures.</p> <p><b>Conclusion:</b><br/>Potentially significant impacts by hazards and hazardous materials can be mitigated to less than significant.</p> |                                             |                                           |                              |           |
| <b>IX. HYDROLOGY &amp; WATER QUALITY. <i>Would the project:</i></b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                             |                                           |                              |           |
| a. Violate any water quality standards or waste discharge requirements?                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                             |                                           | X                            |           |
| b. Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted?                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                             |                                           |                              | X         |
| c. Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site?                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                             |                                           |                              | X         |
| d. Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                             |                                           |                              | X         |
| e. Create or contribute runoff water which would exceed the capacity of existing or planned storm water drainage systems or provide substantial additional sources of polluted runoff?                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                             |                                           |                              | X         |
| f. Otherwise substantially degrade water quality?                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                             |                                           | X                            |           |
| g. Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                             |                                           |                              | X         |
| h. Place within a 100-year flood hazard area structures which would impede or redirect flood flows?                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                             |                                           |                              | X         |

| Environmental Issue Area                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Potentially Significant Impact, Unmitigated | Potentially Significant Impact, Mitigated | Less Than Significant Impact | No Impact |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------|-------------------------------------------|------------------------------|-----------|
| i. Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                             |                                           |                              | X         |
| j. Inundation by seiche, tsunami, or mudflow?                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                             |                                           |                              | X         |
| <p><b>Discussion:</b></p> <p>Overall, the project will have positive impact on drainage and stormwater pollution with the proposed improvements to the stormwater pollution prevention facilities and stormwater treatment facilities.</p> <p>A Preliminary Stormwater Management Plan dated July 3, 2013 was prepared by Riechers Spence Associates Consulting Civil Engineers to determine the necessary improvements for upgrading the stormwater pollution prevention and treatment facilities. The Stormwater Management Plan includes the following facilities:</p> <ul style="list-style-type: none"> <li>• Concrete curbing around compost processing areas to prevent run-on and run-off.</li> <li>• Use of existing storm drain system (with minor alterations) to convey stormwater runoff.</li> <li>• Pretreatment via the installation of a new 4-chamber solid separator in an existing concrete basin.</li> <li>• Primary treatment via a new two-stage treatment pond, separated by a floating baffle curtain.</li> <li>• Secondary treatment via a new facultative vegetated lagoon.</li> <li>• Upgrading of the existing grass-lined bioswale to current CASQA standards.</li> <li>• Tertiary treatment via installation of a new sand filter.</li> </ul> <p>Attachment 9 includes a summary of the Stormwater Management Plan with a site plan of proposed improvements.</p> <p>The conversion of the existing open air compost system to a covered composting system in three-sided bunkers will greatly reduce potential leachate runoff from the composting system.</p> <p>It is also noted that the overall project will include the installation of new roof covers over the existing recyclable materials outdoor storage area on the east side of the site, which will further reduce stormwater pollution.</p> <p>The applicant shall meet the requirements of discharging to a public storm drainage system as required to ensure compliance by the City with all state and federal laws and regulations related to storm water as stipulated in the Clean Water act. Developer shall meet the requirements of the National Pollutant Discharge Elimination System (NPDES) permit in effect prior to completion of project construction for storm water discharges from the municipal storm water system operated by the city of Napa. Developer shall comply with the Storm Water Pollution Mitigation Plan submitted by Developer as part of the application as modified and approved by the Director of Public Works.</p> <p>The compost pad and drainage system will be designed to protect water quality. The State Water Resources Control Board (SWRCB) had provided draft requirement for the General Waste Discharge Requirements for Composting Operations. An EIR is being scoped for this regulatory process where the General Order is expected to adopt in 2014/2015, with full implementation by 2015/2016. The Project will incorporate the following design features in which the SWRCB has deemed to be protective of water quality.</p> <ul style="list-style-type: none"> <li>• All working surfaces must be capable of resisting damage from the movement of mobile operating equipment and weight or piles and have a hydraulic conductivity of <math>1 \times 10^{-5}</math> cm/sec or less, which consists of one of the following: <ul style="list-style-type: none"> <li>○ Compacted soils, with a minimum thickness of one foot;</li> <li>○ Asphalt concrete or Portland concrete; or</li> <li>○ An equivalent engineered alternative.</li> </ul> </li> <li>• Wastewater handling system will need to include a pond with liners meeting the hydraulic conductivity of <math>1 \times 10^{-6}</math> cm/sec or less, which consist of one of the following: <ul style="list-style-type: none"> <li>○ A liner system consisting of a 40-mil synthetic geomembrane underlain by either one foot of compacted clay.</li> </ul> </li> </ul> |                                             |                                           |                              |           |

| Environmental Issue Area                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Potentially Significant Impact, Unmitigated | Potentially Significant Impact, Mitigated | Less Than Significant Impact | No Impact |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------|-------------------------------------------|------------------------------|-----------|
| <p>○ An equivalent engineered alternative</p> <p>Given the above positive improvements to the stormwater treatment system and the design feature of the compost pad and pond, the project will not result in any potential impacts to hydrology and water quality.</p> <p><b>Mitigation Measures:</b><br/>None required. Project design significantly decreases impacts to water quality.</p> <p><b>Conclusion:</b><br/>No impacts to hydrology and water quality.</p>                                                                                                                                                                               |                                             |                                           |                              |           |
| <b>X. LAND USE &amp; PLANNING. Would the project:</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                             |                                           |                              |           |
| a. Physically divide an established community?                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                             |                                           |                              | X         |
| b. Conflict with any applicable land use plan, policy, or resolution of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?                                                                                                                                                                                                                                                                                                                                          |                                             |                                           |                              | X         |
| c. Conflict with any applicable habitat conservation plan or natural community conservation plan?                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                             |                                           |                              | X         |
| <p><b>Discussion:</b><br/>The project site is already fully developed and is located within an industrial area that does not contain any residential development. As such, the proposed new facilities and processed would not divide an established community. The General Plan designation for the site is Public Serving and the zoning is Public/Quasi-Public. The proposed use is consistent with these designations. There are no existing biological conservation plans associated with this industrially developed site.</p> <p><b>Mitigation Measures:</b><br/>None.</p> <p><b>Conclusion:</b><br/>No impacts to land use and planning.</p> |                                             |                                           |                              |           |
| <b>XI. MINERAL RESOURCES. Would the project:</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                             |                                           |                              |           |
| a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                             |                                           |                              | X         |
| b) Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan?                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                             |                                           |                              | X         |
| <p><b>Discussion:</b><br/>There are no mineral resources on the project site. As such this proposal would not result in the loss of availability of mineral resources.</p> <p><b>Mitigation Measures:</b><br/>None.</p> <p><b>Conclusion:</b><br/>No impact to mineral resources.</p>                                                                                                                                                                                                                                                                                                                                                                |                                             |                                           |                              |           |
| <b>XII. NOISE. Would the project result in:</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                             |                                           |                              |           |
| a. Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                             |                                           | X                            |           |

| Environmental Issue Area                                                                                                                                     | Potentially Significant Impact, Unmitigated | Potentially Significant Impact, Mitigated | Less Than Significant Impact | No Impact |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------|-------------------------------------------|------------------------------|-----------|
| ordinance, or applicable standards of other agencies??                                                                                                       |                                             |                                           |                              |           |
| b. Exposure of persons to or generation of excessive ground borne vibration or ground borne noise levels?                                                    |                                             |                                           |                              | X         |
| c. A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project                                |                                             |                                           | X                            |           |
| d. A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?                   |                                             |                                           |                              | X         |
| e. For a project located within an airport land use plan, would the project expose people residing or working in the project area to excessive noise levels? |                                             |                                           |                              | X         |

#### **Discussion:**

The project site is an existing materials diversion facility surrounded by heavy industrial and public airport uses. There are no sensitive receptors such as residential or office in the vicinity. The new noise generation issues are limited to noise associated with construction activities for the project and the operations of the biomass gasification facility.

The proposed biomass gasification facility would be manufactured by Phoenix Energy, which recently installed a similar unit in Merced County (Phoenix Energy 2011). Sound readings were conducted at this existing unit in order to determine the potential noise levels at the project site with project implementation. In addition, manufacturer specifications were obtained for the Caterpillar G3516 TA electrical generation equipment that would be used in conjunction with the unit and would be located on the same pad. When open to the air, the mechanical and exhaust noise from this equipment is estimated to be 81.3 dBA to 91.6 dBA at 50 feet from the engine. However, this equipment would be completely enclosed in a steel container provided by the manufacturer and would include sound attenuators along air intake and air outlet paths. In addition, an exhaust silencer would be installed to further reduce noise levels. With these noise attenuation features in place, sound levels in any direction would not exceed 65 dBA at a distance of approximately 30 feet from the unit. This level of noise is within the normally acceptable range for industrial and manufacturing uses according to the City's General Plan (see Figure 12-3, Land Use Compatibility for Community Noise Environments, of the Noise Element).

Given that surrounding uses are exclusively industrial and Airport, there are no receptors in the area that would be adversely impacted by increased temporary construction noise levels and the buffered noise from the biomass gasification facility. As such no significant noise impacts will occur, and no mitigation is necessary.

#### **Mitigation Measures:**

None.

#### **Conclusion:**

No impact to noise.

#### **XIII. POPULATION AND HOUSING. Would the project:**

|                                                                                                                                                                                                            |  |  |  |   |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|--|---|
| a. Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads and other infrastructure)? |  |  |  | X |
| b. Displacing substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?                                                                                    |  |  |  | X |
| c. Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?                                                                                                |  |  |  | X |

#### **Discussion:**

The expansion of this industrial use with new equipment and processes will not impact housing or significantly increase employment. The project will not induce growth directly or indirectly nor will it displace existing housing units. As there is no construction involved, it does not present new impacts related to jobs and housing that

| Environmental Issue Area                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Potentially Significant Impact, Unmitigated | Potentially Significant Impact, Mitigated | Less Than Significant Impact | No Impact |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------|-------------------------------------------|------------------------------|-----------|
| were not already anticipated by the General Plan.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                             |                                           |                              |           |
| <b>Mitigation Measures:</b><br>None                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                             |                                           |                              |           |
| <b>Conclusion:</b><br>No impacts to population and housing.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                             |                                           |                              |           |
| <b>XIV. PUBLIC SERVICES.</b> <i>Would the project:</i>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                             |                                           |                              |           |
| a. Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, the need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services including:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                             |                                           |                              | X         |
| i) Fire Protection?                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                             | X                                         |                              |           |
| ii) Police Protection?                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                             |                                           |                              | X         |
| iii) Schools?                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                             |                                           |                              | X         |
| iv) Parks?                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                             |                                           |                              | X         |
| v) Other Public Facilities?                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                             |                                           |                              | X         |
| <b>Discussion:</b><br>The project site is located in an existing developed industrial park that is fully and adequately provided with all necessary public services. The addition of new facilities and processes at the site will not require any additional level of public services. A County fire station is located less than two miles from the project site. Given that it is an industrial project, it will not have an impact on park or school facilities. As such, the project will not have any impact on public services. To mitigate any potential fire concerns with the proposed CNG gas production and the biomass plant, a mitigation measure requiring the development of a Fire Safety Plan has been included.<br><br>Operation and maintenance of the anaerobic digester facilities would also involve the transport, use, storage and disposal of small quantities of hazardous materials such as fuels, lubricants, hydraulic fluids. Handling of hazardous materials is covered by federal and State laws which minimize worker safety risks from both physical and chemical hazards in the workplace. Cal/OSHA is responsible for developing and enforcing workplace safety standards, including the handling and use of hazardous materials. Businesses that use hazardous materials are required to submit a Hazardous Materials Business Plan to the local CUPA, which performs inspections to ensure compliance with hazardous materials labeling, training, and storage regulations. For example, hazardous materials must be stored in containers according to the manufacturer's guidelines and appropriately labeled. The Material Safety Data Sheet for each chemical must be available for review. Employers must inform workers of the hazards associated with the materials they handle and maintain records documenting training. As an existing facility with current use of hazardous materials, the Hazardous Materials Business Plan would be required to be updated to reflect any changes that might occur from the proposed project.<br><br>Transportation of hazardous materials is regulated by the DOT and Caltrans. Together, federal and State agencies determine driver-training requirements, load labeling procedures, and container specifications designed to minimize the risk of accidental release.<br><br>The proposed Project also involves the production of biogas generated through the anaerobic digestion process. Biogas is composed primarily of methane but can also contain small quantities of carbon dioxide and hydrogen sulfide. The biogas would be captured and the low quality lean gas (methane content below 20% and higher than 1%) would be destroyed in an enclosed lean gas flare (LGF) generated during digester termination operations. Methane is not toxic, but handling methane can be hazardous as it is ignitable and can be flammable. Methane has an ignition temperature of 1,000 degrees Fahrenheit (°F) and is flammable at concentrations between 5 percent and 15 percent in air. Unconfined mixtures of methane in air are not explosive; however, a flammable concentration within an enclosed space in the presence of an ignition source |                                             |                                           |                              |           |

| Environmental Issue Area                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Potentially Significant Impact, Unmitigated | Potentially Significant Impact, Mitigated | Less Than Significant Impact | No Impact |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------|-------------------------------------------|------------------------------|-----------|
| <p>can explode. Methane is buoyant at atmospheric temperatures and disperses rapidly in air. Unintentional releases of biogas from the facility could pose risks to human health and safety. For example, biogas could be released from a leak or rupture at the digester facility. If the gas reaches a combustible mixture and an ignition source is present, a fire and/or explosion could occur, resulting in possible injuries and/or deaths.</p> <p>Compliance with existing safety regulations and widely-accepted industry standards would minimize the hazard to the public and the environment. With respect to the flaring of biogas and potential fire hazards associated with the storage and transport of methane and small quantities of other materials used in operations, the National Fire Protection Association (NFPA) has established standards for fire protection which would be applicable to the construction of the AD facilities. These standards have been successfully implemented by numerous waste water treatment facilities across the country. Construction and operation of the project would be required to comply with the California fire code and local building codes (including requirements for the installation of fire suppression systems). Standard safety measures for anaerobic treatment facility construction and operation that would minimize the potential for risks from unintentional releases of biogas include leak detection systems, warning signals, and safety flares to reduce excess gas capacity. If released to the environment, methane would be dispersed rapidly in air, minimizing the hazards of exposure.</p> <p>Although compliance with existing laws and regulations governing the transport, use, storage, handling and disposal of hazardous materials would likely ensure less than significant impacts, a Fire Safety Plan would be implemented per <b>Mitigation Measure HAZ-1</b> due to the combustion potential of methane.</p> <p><b><u>Mitigation Measures:</u></b><br/> <b>Mitigation Measure HAZ-1:</b> Prior to project approval, the applicant shall prepare and implement a Fire Safety Plan that outlines fire hazards, describes facility operations procedures to prevent ignition of fires, requires regular inspection of fire suppression systems, and provides worker training in safety procedures as well as protocols for responding to fire incidents. The Fire Safety Plan shall be reviewed and approved by the local fire enforcement agency.</p> <p><b><u>Conclusion:</u></b><br/> No impact to public services with mitigation.</p> |                                             |                                           |                              |           |
| <b>XV. RECREATION. <i>Would the project:</i></b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                             |                                           |                              |           |
| a. Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that a substantial physical deterioration of the facility would occur or be accelerated?                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                             |                                           |                              | X         |
| b. Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                             |                                           |                              | X         |
| <p><b><u>Discussion:</u></b><br/> The project is an industrial use in an industrially developed area, and therefore would not increase use of recreational facilities. The project does not include the construction or expansion of recreational facilities.</p> <p><b><u>Mitigation Measures:</u></b><br/> None</p> <p><b><u>Conclusion:</u></b><br/> No impacts to recreation.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                             |                                           |                              |           |
| <b>XVI. TRANSPORTATION &amp; TRAFFIC. <i>Would the project:</i></b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                             |                                           |                              |           |
| a) Cause an increase in traffic which is substantial in relation to the existing traffic load and capacity of the street system (i.e., result in a substantial increase in either the number of vehicle trips, the volume to capacity ratio on roads, or congestion at intersections)?                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                             |                                           |                              | X         |

| Environmental Issue Area                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Potentially Significant Impact, Unmitigated | Potentially Significant Impact, Mitigated | Less Than Significant Impact | No Impact |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------|-------------------------------------------|------------------------------|-----------|
| b) Exceed, either individually or cumulatively, a level of service standard established by the county congestion management agency for designated roads or highways?                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                             |                                           |                              | X         |
| c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that result in substantial safety risks?                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                             |                                           |                              | X         |
| d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersection) or incompatible uses (e.g., farm equipment)?                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                             |                                           |                              | X         |
| e) Result in inadequate emergency access?                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                             |                                           |                              | X         |
| f) Result in inadequate parking capacity                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                             |                                           |                              | X         |
| g) Conflict with adopted policies supporting alternative transportation (e.g., bus turnouts, bicycle racks)?                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                             |                                           |                              | X         |
| <p><b>Discussion:</b><br/> A Napa Recycling and Composting Facility Traffic Impact Analysis was recently prepared for the MRF facility by consulting engineers Omni Means, and is incorporated into this Initial Study as Attachment 8. The analysis was prepared to address the renewal of the City's five-year MRF permit, and focused on the following six project-serving intersections: Airport Boulevard/SR-12/SR-29, Levitin Way/Tower Road, Devlin Road/Tower Road, Tower Road/SR-29, Devlin Road/South Kelly Road, and South Kelly Road/SR-29. The Analysis found that the facility has never operated at its previously permitted level of 392 daily truck trips. In the past four years, the highest number of trips was 190 in 2009. This would allow for an excess capacity of 202 daily truck trips. Given the significant excess capacity of truck trips compared to previous permitted and anticipated truck traffic, the potential minimal traffic increase associated with increased delivery of feedstock would not adversely affect local roadways and intersections.</p> <p>"Analysis of On-Site Traffic Conditions at the City of Napa Materials Diversion Facility" was prepared by CalRecovery for on-site traffic circulation. The findings and conclusions of the study was based on a detailed time and motion analysis for the two areas of the MDF that are considered to have greatest potential for congestion, namely the weigh scale facilities and the area encompassing the maneuvering and discharge of vehicular loads in the green waste/wood waste tipping pad and the MRF processing building.</p> <p>Based on the conditions of this analysis, with proper operator monitoring and direction of user traffic the MDF can safely and operationally accommodate permitted maximum traffic amount. Consequently, the weigh scale facilities are adequate to accommodate maximum usage levels.</p> <p><b>Mitigation Measures:</b><br/>None</p> <p><b>Conclusion:</b><br/>No impact to transportation or traffic or on-site circulation</p> |                                             |                                           |                              |           |
| <b>XVII. UTILITIES &amp; SERVICE SYSTEMS. Would the project:</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                             |                                           |                              |           |
| a. Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                             |                                           |                              | X         |
| b. Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                             |                                           |                              | X         |
| c. Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                             |                                           |                              | X         |
| d. Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                             |                                           |                              | X         |



| Environmental Issue Area                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Potentially Significant Impact, Unmitigated | Potentially Significant Impact, Mitigated | Less Than Significant Impact | No Impact |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------|-------------------------------------------|------------------------------|-----------|
| e. Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?                                                                                                                                                                                                                                                                                                      |                                             |                                           |                              | X         |
| f. Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?                                                                                                                                                                                                                                                                                                                                                                                                                 |                                             |                                           |                              | X         |
| g. Comply with federal, state, and local statutes and regulations related to solid waste?                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                             |                                           |                              | X         |
| <b>Discussion:</b><br>The project site is located in an existing developed industrial park that is fully and adequately provided with all necessary utilities. The addition of new facilities and processes for anaerobic digestion, covered composting, biomass gasification, new stormwater treatment facilities, and solar panels will not require any additional improvements to these utility systems. As such, the project will not have any impact on utility and service systems.                                              |                                             |                                           |                              |           |
| <b>Mitigation Measures:</b><br>None                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                             |                                           |                              |           |
| <b>Conclusion:</b><br>No impact to utilities and service systems.                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                             |                                           |                              |           |
| <b>XVIII. MANDATORY FINDINGS OF SIGNIFICANCE.</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                             |                                           |                              |           |
| a. Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal, or eliminate important examples of the major periods of California history or prehistory?                                                                              |                                             |                                           |                              | No        |
| b. Does the project have impacts which are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in conjunction with the effects of past projects, the effects of other current projects and the effects of probable future projects.)                                                                                                                                                                                        |                                             |                                           |                              | No        |
| c. Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?                                                                                                                                                                                                                                                                                                                                                                                            |                                             |                                           |                              | No        |
| <b>Discussion:</b><br>The project will have an overall <u>beneficial</u> impact on the environment including the following: <ul style="list-style-type: none"><li>• Use of waste feedstock and yardwaste to produce a low-carbon biofuel to replace diesel fuel usage</li><li>• Increased re-use of feedstock as compost material</li><li>• Conversion of wood waste to energy.</li><li>• Improved stormwater treatment</li><li>• Use of solar panels to produce clean energy</li><li>• Significantly decrease VOC emissions</li></ul> |                                             |                                           |                              |           |

#### SOURCES OF INFORMATION USED IN PREPARATION OF THIS INITIAL STUDY:

City of Napa; *Alternative and Renewable Anaerobic Digestion and Biofuel Production Facility Grant Proposal* CH2MHill; *Assessment of Options: Materials Diversion Facility Planning for Covered Compost and Anaerobic Digestion*, August 2012

California Department of Resources, *Final Program Environmental Impact Report for Statewide Anaerobic Digester Facilities for the Treatment of Municipal Solid Waste*, June 2011

County of Napa, *Environmental Assessment Maps*

City of Napa; *General Plan Policy Document*, Adopted December, 1998 (Amended 2007).

City of Napa; *General Plan Background Report*, Adopted December, 1998.

City of Napa; *General Plan Final Environmental Impact Report*, Adopted December, 1998.

City of Napa; *Zoning Ordinance*, 2003.

San Joaquin Valley Air Pollution Control District; *Technology Assessment of ECS Composter*, March 11, 2013

CalRecycle, *Greenwaste Compost Site, Emissions Reductions from Solar-powered Aeration and Biofilter Layer*, March 14, 2013, funded by the San Joaquin Valley Technology Advancement Program,

**ATTACHMENTS:**

1. – Project Vicinity Map
2. – Aerial Location Map
3. – Existing Site Uses Map
4. – Proposed Site Plan
5. – Simplified Schematic of a Dry ADF
6. – Process Flow Diagram
7. – Emissions Report
8. – Traffic Impact Analysis
9. – Preliminary Stormwater Management Plan
10. - "Assessment of Options – Material Diversion Facility Planning for Covered Compost and Anaerobic Digestion" dated August 2012 prepared CH2M HILL.
- 11- Odor Impact Minimization Plan
- 12 - Analysis of On-Site Traffic Conditions at the City of Napa Materials Diversion Facility by CalRecovery

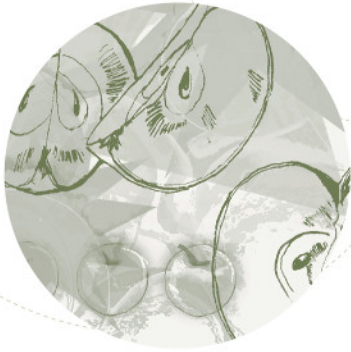






**Attachment 5: Compost certifications and testing results**





# OMRI Listed®

The following product is OMRI Listed. It may be used in certified organic production or food processing and handling according to the USDA National Organic Program Rule.

## Product Compost

## Company

Napa Recycling & Waste Services

Mr. Greg Kelley

P.O. Box239  
Napa, CA 94559

## Status

Allowed

## Category

NOP: Compost – windrow (plant and animal materials)

## Issue date

23-Aug-2007

## Product number

nrw-0772

## Class

Crop Fertilizers and Soil Amendments

## Expiration date

01-Sep-2018

## Restrictions

Not applicable.

Executive Director

Product review is conducted according to the policies in the current *OMRI Policy Manual*® and based on the standards in the current *OMRI Standards Manual*®. To verify the current status of this or any OMRI Listed product, view the most current version of the *OMRI Products List*® at [OMRI.org](http://OMRI.org). OMRI listing is not equivalent to organic certification and is not a product endorsement. It cannot be construed as such. Final decisions on the acceptability of a product for use in a certified organic system are the responsibility of a USDA accredited certification agent. It is the operator's responsibility to properly use the product, including following any restrictions.



Organic Materials Review Institute  
P.O. Box 11558, Eugene, OR 97440-3758, USA  
541.343.7600 • fax 541.343.8971 • [info@omri.org](mailto:info@omri.org) • [www.omri.org](http://www.omri.org)







**NAPA RECYCLING &  
WASTE SERVICES**

## COMPOST

Purpose: Conditions the soil.

Directions for use: Apply approximately 10 cubic yards per 1000 square feet of area, depending on specific use and desired thickness. Till into soil.

Ingredients: compost

Guaranteed by: Napa Recycling & Waste Services  
P.O. Box 239  
Napa, CA 94559  
[www.naparecycling.com](http://www.naparecycling.com)

Bulk > 110 lbs/50 kgs



# PARTICIPANT



**US** Composting  
Council

*Seal of Testing  
Assurance®*

**Frank Franciosi**  
USCC Executive Director

A handwritten signature in green ink, appearing to read 'Frank Franciosi', is positioned below the printed name and title.

**Napa Recycling**

**4/25/17 – 4/24/18**

[compostingcouncil.org](http://compostingcouncil.org)

**US COMPOSTING  
COUNCIL***Seal of Testing  
Assurance***Napa Recycling & Waste Services**

William Cook

P.O. Box 239

Napa

CA 94559

Date Sampled/Received: 20 Sep. 17 / 22 Sep. 17

**Product Identification** Compost

Napa 9-17

## COMPOST TECHNICAL DATA SHEET

| LABORATORY: Soil Control Lab; 42 Hangar Way; Watsonville, CA 95076 <i>tel:</i> 831.724.5422 <i>fax:</i> 831.724.3188 |                                                                          |                          |                          |
|----------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------|--------------------------|--------------------------|
| <i>Compost Parameters</i>                                                                                            | <i>Reported as (units of measure)</i>                                    | <i>Test Results</i>      | <i>Test Results</i>      |
| Plant Nutrients:                                                                                                     | %, weight basis                                                          | Not reported             | Not reported             |
| Moisture Content                                                                                                     | %, wet weight basis                                                      | 38.5                     |                          |
| Organic Matter Content                                                                                               | %, dry weight basis                                                      | 52.7                     |                          |
| pH                                                                                                                   | units                                                                    | 8.26                     |                          |
| Soluble Salts<br><i>(electrical conductivity EC<sub>5</sub>)</i>                                                     | dS/m (mmhos/cm)                                                          | 3.7                      |                          |
| Particle Size or Sieve Size                                                                                          | maxium aggregate size, inches                                            | 0.64                     |                          |
| Stability Indicator ( <i>respirometry</i> )                                                                          |                                                                          | <i>Stability Rating:</i> |                          |
| CO <sub>2</sub> Evolution                                                                                            | mg CO <sub>2</sub> -C/g OM/day                                           | 1.8                      | Very Stable              |
|                                                                                                                      | mg CO <sub>2</sub> -C/g TS/day                                           | 0.95                     |                          |
| Maturity Indicator (bioassay)                                                                                        |                                                                          |                          |                          |
| Percent Emergence                                                                                                    | average % of control                                                     | 93.3                     |                          |
| Relative Seedling Vigor                                                                                              | average % of control                                                     | 101.9                    |                          |
| Select Pathogens                                                                                                     | PASS/FAIL: per US EPA Class A standard, 40 CFR § 503.32(a)               | Pass                     | <i>Fecal coliform</i>    |
|                                                                                                                      |                                                                          | Pass                     | <i>Salmonella</i>        |
| Trace Metals                                                                                                         | PASS/FAIL: per US EPA Class A standard, 40 CFR § 503.13, Tables 1 and 3. | Pass                     | <i>As,Cd,Cr,Cu,Pb,Hg</i> |
|                                                                                                                      |                                                                          |                          | Mo,Ni,Se,Zn              |

*Participants in the US Composting Council's Seal of Testing Assurance Program have shown the commitment to test their compost products on a prescribed basis and provide this data, along with compost end use instructions, as a means to better serve the needs of their compost customers.*

Laboratory Group: Sep17D

Laboratory Number: 7090632-1/1

Analyst: Assaf Sadeh

www.compostlab.com



**US COMPOSTING  
COUNCIL**

*Seal of Testing  
Assurance*

**Napa Recycling & Waste Services**

William Cook

P.O. Box 239

Napa

CA 94559

Date Sampled/Received: 20 Sep. 17 / 22 Sep. 17

**Product Identification** Compost

Napa 9-17

## COMPOST TECHNICAL DATA SHEET

| LABORATORY: Soil Control Lab; 42 Hangar Way; Watsonville, CA 95076 <i>tel:</i> 831.724.5422 <i>fax:</i> 831.724.3188 |                                                                          |                     |                          |
|----------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------|---------------------|--------------------------|
| <i>Compost Parameters</i>                                                                                            | <i>Reported as (units of measure)</i>                                    | <i>Test Results</i> | <i>Test Results</i>      |
| Plant Nutrients:                                                                                                     | %, weight basis                                                          | %, wet weight basis | %, dry weight basis      |
| Nitrogen                                                                                                             | Total N                                                                  | 1.2                 | 1.9                      |
| Phosphorus                                                                                                           | P <sub>2</sub> O <sub>5</sub>                                            | 0.48                | 0.77                     |
| Potassium                                                                                                            | K <sub>2</sub> O                                                         | 1.2                 | 2.0                      |
| Calcium                                                                                                              | Ca                                                                       | 1.5                 | 2.5                      |
| Magnesium                                                                                                            | Mg                                                                       | 0.28                | 0.46                     |
| Moisture Content                                                                                                     | %, wet weight basis                                                      | 38.5                |                          |
| Organic Matter Content                                                                                               | %, dry weight basis                                                      | 52.7                |                          |
| pH                                                                                                                   | units                                                                    | 8.26                |                          |
| Soluble Salts<br><i>(electrical conductivity EC<sub>5</sub>)</i>                                                     | dS/m (mmhos/cm)                                                          | 3.7                 |                          |
| Particle Size or Sieve Size                                                                                          | % under 9.5 mm, dw basis                                                 | 98.2                |                          |
| Stability Indicator ( <i>respirometry</i> )                                                                          |                                                                          | Stability Rating:   |                          |
| CO <sub>2</sub> Evolution                                                                                            | mg CO <sub>2</sub> -C/g OM/day                                           | 1.8                 | Very Stable              |
|                                                                                                                      | mg CO <sub>2</sub> -C/g TS/day                                           | 0.95                |                          |
| Maturity Indicator (bioassay)                                                                                        |                                                                          |                     |                          |
| Percent Emergence                                                                                                    | average % of control                                                     | 93.3                |                          |
| Relative Seedling Vigor                                                                                              | average % of control                                                     | 101.9               |                          |
| Select Pathogens                                                                                                     | PASS/FAIL: per US EPA Class A standard, 40 CFR § 503.32(a)               | Pass                | <i>Fecal coliform</i>    |
|                                                                                                                      |                                                                          | Pass                | <i>Salmonella</i>        |
| Trace Metals                                                                                                         | PASS/FAIL: per US EPA Class A standard, 40 CFR § 503.13, Tables 1 and 3. | Pass                | <i>As,Cd,Cr,Cu,Pb,Hg</i> |
|                                                                                                                      |                                                                          |                     | Mo,Ni,Se,Zn              |

*Participants in the US Composting Council's Seal of Testing Assurance Program have shown the commitment to test their compost products on a prescribed basis and provide this data, along with compost end use instructions, as a means to better serve the needs of their compost customers.*

Laboratory Group:

Sep17D

Laboratory Number: 7090632-1/1

Analyst: Assaf Sadeh

www.compostlab.com



**US COMPOSTING  
COUNCIL**

*Seal of Testing  
Assurance*

**Caltrans**

Napa Recycling & Waste Services

William Cook

P.O. Box 239

Napa CA 94559

**Product Identification:**

Napa 9-17

Date Sampled/Received: 20 Sep. 17 / 22 Sep. 17

## COMPOST TECHNICAL DATA SHEET for Caltrans

LABORATORY: Soil Control Lab, 42 Hangar Way, Watsonville, CA 95076 tel (831) 724-5422 fax (831) 724-3188 www.compostlab.com

| <i>Compost Parameters</i>                                                     | <i>Test Results</i> | <i>Reported as (units of measure)</i>                           | <i>TMECC Test Method</i>                                    |
|-------------------------------------------------------------------------------|---------------------|-----------------------------------------------------------------|-------------------------------------------------------------|
| pH                                                                            | 8.26                | Unitless                                                        | 04.11-A 1:5 Slurry pH                                       |
| Soluble Salts<br>(electrical conductivity)                                    | 3.7                 | dS/m (mmhos/cm)                                                 | 04.10-A 1:5 Slurry Method<br>Mass Basis                     |
| Moisture content                                                              | 38.5                | %, wet weight basis                                             | 03.09-A - Total Solids and<br>Moisture                      |
| Organic Matter Content                                                        | 52.7                | %, dry weight basis                                             | 05.07-A Loss-on-Ignition<br>Organic Matter Method (LOI)     |
| Maturity Indicator (bioassay)<br>Percent Emergence<br>Relative Seedling Vigor | 93.3<br>101.9       | average % of control<br>average % of control                    | 05.05-A Germination and vigor                               |
| Stability Indicator                                                           | 1.8                 | mg CO <sub>2</sub> -C/g OM/day                                  | 05.08-B Carbon Dioxide<br>Evolution Rate                    |
| Particle Size                                                                 | 98.2                | %, dry weight passing through<br>9.5 mm                         | 02.02-B Sample Sieving for<br>Aggregate Size Classification |
| Pathogens                                                                     | Pass                | PASS/FAIL: Per US EPA Class A<br>standard, 40 CFR 503.32(a)     | 07.01-B Fecal coliforms                                     |
| Pathogens                                                                     | Pass                | PASS/FAIL: Per US EPA Class A<br>standard, 40 CFR 503.32(a)     | 07.02 Salmonella                                            |
| Physical Contaminants                                                         | None Detected       | %, dry weight basis                                             | 02.02-C - Man-Made Inerts<br>Total content                  |
| Physical Contaminants                                                         | None Detected       | %, dry weight basis                                             | 02.02-C - Man-Made Inerts<br>Sharps content                 |
| Heavy Metals Content                                                          | Pass                | PASS/FAIL: Per US EPA Class A<br>40 CFR 503.13, tables 1 and 3. | 04.06-Heavy Metals standard,<br>and Hazardous Elements      |

*Participants in the US Composting Council's Seal of Testing Assurance Program have shown the commitment to test their compost products on a prescribed basis and provide this data, along with compost end use instructions, as a means to better serve the needs of their compost customers.*

*For additional information pertaining to compost use, the specific compost parameters tested for within the Seal of Testing assurance Program, or the program in general, log on to the US Composting Council's TMECC web-site at <http://www.tmecc.org>.*

This compost product has been sampled and tested as required by the Seal of Testing assurance Program on the United States Composting Council (USCC), using certain methods from the "Test Methods for the Examination of Compost and Composting" manual. Test results are available upon request by contacting the compost producer (address at top of page). The USCC makes no warranties regarding this product or its content, quality, or suitability for any particular use.

Laboratory Group: Sep17D

Laboratory Number: 7090632-1/1

Analyst: Assaf Sadeh

www.compostlab.com

## SOIL CONTROL LAB

42 HANGAR WAY  
WATSONVILLE  
CALIFORNIA  
95076  
USA

Account #: 7090632-1/1-4775  
Group: Sep17D #48  
Reporting Date: October 4, 2017

Napa Recycling & Waste Services  
P.O. Box 239  
Napa, CA 94559  
Attn: William Cook

Date Received: 22 Sep. 17  
Sample Identification: Napa 9-17  
Sample ID #: 7090632 - 1/1

|                                                 |         |           |          |                                              |                    |                    |
|-------------------------------------------------|---------|-----------|----------|----------------------------------------------|--------------------|--------------------|
| <b>Nutrients</b>                                | Dry wt. | As Rcvd.  | units    | <b>Stability Indicator:</b>                  |                    | Biologically       |
| Total Nitrogen:                                 | 1.9     | 1.2       | %        | <b>CO2 Evolution</b>                         | Respirometry       | Available C        |
| Ammonia (NH <sub>4</sub> -N):                   | 220     | 140       | mg/kg    | mg CO <sub>2</sub> -C/g OM/day               | 1.8                | 1.9                |
| Nitrate (NO <sub>3</sub> -N):                   | 85      | 52        | mg/kg    | mg CO <sub>2</sub> -C/g TS/day               | 0.95               | 1.0                |
| Org. Nitrogen (Org.-N):                         | 1.9     | 1.2       | %        | <i>Stability Rating</i>                      | <i>very stable</i> | <i>very stable</i> |
| Phosphorus (as P <sub>2</sub> O <sub>5</sub> ): | 0.77    | 0.47      | %        |                                              |                    |                    |
| Phosphorus (P):                                 | 3400    | 2100      | mg/kg    | <b>Maturity Indicator: Cucumber Bioassay</b> |                    |                    |
| Potassium (as K <sub>2</sub> O):                | 2.0     | 1.2       | %        | Compost:Vermiculite(v:v)                     | 1:2                |                    |
| Potassium (K):                                  | 17000   | 10000     | mg/kg    | Emergence (%)                                | 93                 |                    |
| Calcium (Ca):                                   | 2.5     | 1.5       | %        | Seedling Vigor (%)                           | 102                |                    |
| Magnesium (Mg):                                 | 0.46    | 0.28      | %        | <i>Description of Plants</i>                 | <i>healthy</i>     |                    |
| Sulfate (SO <sub>4</sub> -S):                   | 340     | 210       | mg/kg    |                                              |                    |                    |
| Boron (Total B):                                | 69      | 42        | mg/kg    | <b>Pathogens</b>                             | Results            | Units              |
| Moisture:                                       | 0       | 38.5      | %        | Fecal Coliform                               | < 7.5              | MPN/g              |
| Sodium (Na):                                    | 0.19    | 0.12      | %        | Salmonella                                   | < 3                | MPN/4g             |
| Chloride (Cl):                                  | 0.20    | 0.13      | %        | Date Tested: 22 Sep. 17                      |                    |                    |
| pH Value:                                       | NA      | 8.26      | unit     |                                              |                    |                    |
| Bulk Density :                                  | 21      | 35        | lb/cu ft | <b>Inerts</b>                                | % by weight        | Rating             |
| Carbonates (CaCO <sub>3</sub> ):                | 31      | 19        | lb/ton   | Plastic                                      | < 0.5              |                    |
| Conductivity (EC5):                             | 3.7     | NA        | mmhos/cm | Glass                                        | < 0.5              |                    |
| Organic Matter:                                 | 52.7    | 32.4      | %        | Metal                                        | < 0.5              |                    |
| Organic Carbon:                                 | 27.0    | 16.0      | %        | Sharps                                       | ND                 |                    |
| Ash:                                            | 47.3    | 29.1      | %        |                                              |                    |                    |
| C/N Ratio                                       | 14      | 14        | ratio    |                                              |                    |                    |
| AgIndex                                         | > 10    | > 10      | ratio    |                                              |                    |                    |
| <b>Metals</b>                                   | Dry wt. | EPA Limit | units    | <b>Size Distribution</b>                     |                    |                    |
| Aluminum (Al):                                  | 6500    | -         | mg/kg    | MM                                           | % by weight        |                    |
| Arsenic (As):                                   | 4.3     | 41        | mg/kg    | > 50                                         | 0.0                |                    |
| Cadmium (Cd):                                   | < 1.0   | 39        | mg/kg    | 25 to 50                                     | 0.0                |                    |
| Chromium (Cr):                                  | 23      | 1200      | mg/kg    | 16 to 25                                     | 0.0                |                    |
| Cobalt (Co)                                     | 4.6     | -         | mg/kg    | 9.5 to 16                                    | 1.8                |                    |
| Copper (Cu):                                    | 45      | 1500      | mg/kg    | 6.3 to 9.5                                   | 3.1                |                    |
| Iron (Fe):                                      | 12000   | -         | mg/kg    | 4.0 to 6.3                                   | 9.2                |                    |
| Lead (Pb):                                      | 29      | 300       | mg/kg    | 2.0 to 4.0                                   | 26.6               |                    |
| Manganese (Mn):                                 | 330     | -         | mg/kg    | < 2.0                                        | 59.3               |                    |
| Mercury (Hg):                                   | < 1.0   | 17        | mg/kg    |                                              |                    |                    |
| Molybdenum (Mo):                                | 1.6     | 75        | mg/kg    |                                              |                    |                    |
| Nickel (Ni):                                    | 19      | 420       | mg/kg    |                                              |                    |                    |
| Selenium (Se):                                  | < 1.0   | 36        | mg/kg    |                                              |                    |                    |
| Zinc (Zn):                                      | 150     | 2800      | mg/kg    |                                              |                    |                    |

Analyst: Assaf Sadeh

*Chas. Sabel*

\*Sample was received and handled in accordance with TMECC procedures.

Account No.:  
7090632 - 1/1 - 4775  
Group: Sep17D No. 48

Date Received 22 Sep. 17  
Sample i.d. Napa 9-17  
Sample I.d. No. 1/1 7090632

## INTERPRETATION:

Page one of three

### Is Your Compost Stable?

|                                        |                                                                            |
|----------------------------------------|----------------------------------------------------------------------------|
| Respiration Rate                       | Biodegradation Rate of Your Pile                                           |
| 1.8 mg CO <sub>2</sub> -C/<br>g OM/day | +++++++<br>< Stable > < Moderately Unstable> < Unstable > < High For Mulch |
| Biologically Available Carbon (BAC)    | Optimum Degradation Rate                                                   |
| 1.9 mg CO <sub>2</sub> -C/<br>g OM/day | +++++++<br>< Stable > < Moderately Unstable> < Unstable > < High For Mulch |

### Is Your Compost Mature?

|                         |                                               |
|-------------------------|-----------------------------------------------|
| Ammonia/Nitrate/N ratio |                                               |
| 2.6 Ratio               | +++++++<br>VeryMature> < Mature > < Immature  |
| Ammonia N ppm           |                                               |
| 220 mg/kg<br>dry wt.    | +++++++<br>VeryMature> < Mature > < Immature  |
| Nitrate N ppm           |                                               |
| 85 mg/kg<br>dry wt.     | +++++++<br>< Immature > < Mature              |
| pH value                |                                               |
| 8.26 units              | +++++++<br>< Immature > < Mature > < Immature |
| Cucumber Emergence      |                                               |
| 93.3 percent            | +++++++<br>< Immature > < Mature              |

### Is Your Compost Safe Regarding Health?

|                            |                                                                             |
|----------------------------|-----------------------------------------------------------------------------|
| Fecal Coliform             |                                                                             |
| < 1000 MPN/g dry wt.       | +++++++<br>< Safe > < High Fecal Coliform                                   |
| Salmonella                 |                                                                             |
| Less than 3 /4g dry wt.    | +++++++<br><Safe (none detected) > < High Salmonella Count(> 3 per 4 grams) |
| Metals                     |                                                                             |
| US EPA 503<br>Pass dry wt. | +++++++<br><All Metals Pass > < One or more Metals Fail                     |

### Does Your Compost Provide Nutrients or Organic Matter?

|                                                  |                                                                                         |
|--------------------------------------------------|-----------------------------------------------------------------------------------------|
| Nutrients (N+P2O5+K2O)                           |                                                                                         |
| 4.7 Percent<br>dry wt.                           | +++++++<br><Low > < Average > < High Nutrient Content                                   |
| AgIndex (Nutrients / Sodium and Chloride Salts)  | ((N+P2O5+K2O) / (Na + Cl))                                                              |
| 12 Ratio                                         | +++++++<br>Na & Cl > < Nutrient and Sodium and Chloride Provider > < Nutrient Provider  |
| Plant Available Nitrogen (PAN)                   | Estimated release for first season                                                      |
| 3 lbs/ton<br>wet wt.                             | +++++++<br>Low Nitrogen Provider> < Average Nitrogen Provider > <High Nitrogen Provider |
| C/N Ratio                                        |                                                                                         |
| 14 Ratio                                         | +++++++<br>< Nitrogen Release > < N-Neutral > < N-Demand> < High Nitrogen Demand        |
| Soluble Available Nutrients & Salts (EC5 w/w dw) |                                                                                         |
| 3.7 mmhos/cm<br>dry wt.                          | +++++++<br>SlolRelease> < Average Nutrient Release Rate > <High Available Nutrients     |
| Lime Content (CaCO <sub>3</sub> )                |                                                                                         |
| 31 Lbs/ton<br>dry wt.                            | +++++++<br>< Low > < Average > < High Lime Content (as CaCO <sub>3</sub> )              |

### What are the physical properties of your compost?

|                               |                                                                                 |
|-------------------------------|---------------------------------------------------------------------------------|
| Percent Ash                   |                                                                                 |
| 47.3 Percent<br>dry wt.       | +++++++<br>< High Organic Matter > < Average > < High Ash Content               |
| Sieve Size % > 6.3 MM (0.25") |                                                                                 |
| 4.9 Percent<br>dry wt.        | +++++++<br>All Uses > < Size May Restrict Uses for Potting mix and Golf Courses |

Account No.:  
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## INTERPRETATION:

### Is Your Compost Stable?

Page two of three

#### Respiration Rate

1.8 Low: Good for all uses mg CO<sub>2</sub>-C/g OM/day

The respiration rate is a measurement of the biodegradation rate of the organic matter in the sample (as received).

The respiration rate is determined by measuring the rate at which CO<sub>2</sub> is released under optimized moisture and temperature conditions.

#### Biologically Available Carbon

1.9 Low: Good for all uses mg CO<sub>2</sub>-C/g OM/day

Biologically Available Carbon (BAC) is a measurement of the rate at which CO<sub>2</sub> is released under optimized moisture, temperature, porosity, nutrients, pH and microbial conditions. If both the RR and the BAC test values are close to the same value, the pile is optimized for composting. If both values are high the compost pile just needs more time. If both values are low the compost has stabilized and should be moved to curing. BAC test values that are higher than RR indicate that the compost pile has stalled. This could be due to anaerobic conditions, lack of available nitrogen due to excessive air converting ammonia to the unavailable nitrate form, lack of nitrogen or other nutrients due to poor choice of feedstock, pH value out of range, or microbes rendered non-active.

### Is Your Compost Mature?

#### Ammonia:N:nitrate:N ratio

2.6 mature

#### Ammonia N ppm

220 mature

#### Nitrate N ppm

85 mature

#### pH value

8.26 immature

Composting to stabilize carbon can occur at such a rapid rate that sometimes phytotoxins remain in the compost and must be neutralized before using in high concentrations or in high-end uses. This step is called curing. Typically ammonia is in excess with the break-down of organic materials resulting in an increase in pH. This combination results in a loss of volatile ammonia (it smells). Once this toxic ammonia has been reduced and the pH drops, the microbes convert the ammonia to nitrates. A low ammonia + high nitrate score is indicative of a mature compost, however there are many exceptions. For example, a compost with a low pH (<7) will retain ammonia, while a compost with high lime content can lose ammonia before the organic fraction becomes stable. Composts must first be stable before curing indicators apply.

#### Cucumber Bioassay

93.3 Percent

Cucumbers are chosen for this test because they are salt tolerant and very sensitive to ammonia and organic acid toxicity. Therefore, we can germinate seeds in high concentrations of compost to

measure phytotoxic effects without soluble salts being the limiting factor. Values above 80% for both percent emergence and vigor are indicative of a well-cured compost. Exceptions include very high salts that affect the cucumbers, excessive concentrations of nitrates and other nutrients that will be in range when formulated to make a growing media.

### Is Your Compost Safe Regarding Health?

#### Fecal Coliform

< 1000 / g dry wt.

Fecal coliforms can survive in both aerobic and anaerobic conditions and is common in all initial compost piles. Most human pathogens occur from fecal matter and all fecal matter is loaded in fecal coliforms. Therefore fecal coliforms are used as an indicator to determine if the chosen method for pathogen reduction (heat for compost) has met the requirements of sufficient temperature, time and mixing. If the fecal coliforms are reduced to below 1000 per gram dry wt. it is assumed all other pathogens are eliminated. Potential problems are that fecal coliform can regrow during the curing phase or during shipping. This is because the conditions are now more favorable for growth than during the composting process.

#### Salmonella Bacteria

Less than 3 3 / 4g dry wt. Salmonella is not only another indicator organism but also a toxic microbe. It has been used in the case of biosolids industry to determine adequate pathogen reduction.

#### Metals

Pass

The ten heavy metals listed in the EPA 503 regulations are chosen to determine if compost can be applied to ag land and handled without toxic effects. Most high concentrations of heavy metals are derived from woodwaste feedstock such as chrome-arsenic treated or lead painted demolition wood. Biosolids are rarely a problem.

### Does Your Compost Provide Nutrients or Organic Matter?

#### Nutrients (N+P<sub>2</sub>O<sub>5</sub>+K<sub>2</sub>O)

4.7 Average nutrient content

This value is the sum of the primary nutrients Nitrogen, Phosphorus and Potassium. Reported units are consistent with those found on fertilizer formulations. A sum greater than 5 is indicative of a compost with high nutrient content, and best used to supply nutrients to a receiving soil. A sum below 2 indicates low nutrient content, and is best-used to improve soil structure via the addition of organic matter. Most compost falls between 2 and 5.



Account No.:  
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## INTERPRETATION:

Page three of three

### AgIndex (Nutrients/Na+Cl)

12 High nutrient ratio Composts with low AgIndex values have high concentrations of sodium and/or chloride compared to nutrients. Repeated use of a compost with a low AgIndex (< 2) may result in sodium and/or chloride acting as the limiting factor compared to nutrients, governing application rates. These composts may be used on well-draining soils and/or with salt-tolerant plants. Additional nutrients from another source may be needed if the application rate is limited by sodium or chloride. If the AgIndex is above 10, nutrients optimal for plant growth will be available without concern of sodium and/or chloride toxicity. Composts with an AgIndex of above 10 are good for increasing nutrient levels for all soils. Most composts score between 2 and 10. Concentrations of nutrients, sodium, and chloride in the receiving soil should be considered when determining compost application rates. The AgIndex is a product of feedstock quality. Feedstock from dairy manure, marine waste, industrial wastes, and halophytic plants are likely to produce a finished compost with a low AgIndex.

### Plant Available Nitrogen (lbs/ton)

3 Low N Provider Plant Available Nitrogen (PAN) is calculated by estimating the release rate of Nitrogen from the organic fraction of the compost. This estimate is based on information gathered from the BAC test and measured ammonia and nitrate values. Despite the PAN value of the compost, additional sources of Nitrogen may be needed during the growing season to offset the Nitrogen demand of the microbes present in the compost. With ample nutrients these microbes can further breakdown organic matter in the compost and release bound Nitrogen. Nitrogen demand based on a high C/N ratio is not considered in the PAN calculation because additional Nitrogen should always be supplemented to the receiving soil when composts with a high C/N ratio are applied.

### C/N Ratio

14 Indicates maturity As a guiding principal, a C/N ratio below 14 indicates maturity and above 14 indicates immaturity, however, there are many exceptions. Large woodchips (>6.3mm), bark, and redwood are slow to breakdown and therefore can result in a relatively stable product while the C/N ratio value is high. Additionally, some composts with chicken manure and/or green grass feedstocks can start with a C/N ratio below 15 and are very unstable. A C/N ratio below 10 supplies Nitrogen, while a ratio above 20 can deplete Nitrogen from the soil. The rate at which Nitrogen will be released or used by the microbes is indicated by the respiration rate (BAC). If the respiration rate is too high the transfer of Nitrogen will not be controllable.

### Soluble Nutrients & Salts (EC5 w/w dw - mmhos/cm)

3.7 Average salts This value refers to all soluble ions including nutrients, sodium, chloride and some soluble organic compounds. The concentration of salts will change due to the release of salts from the organic matter as it degrades, volatilization of ammonia, decomposition of soluble organics, and conversion of molecular structure. High salts + high AgIndex is indicative of a compost high in readily available nutrients. The application rate of these composts should be limited by the optimum nutrient value based on soil analysis of the receiving soil. High Salts + low AgIndex is indicative of a compost low in nutrients with high concentrations of sodium and/or chloride. Limit the application rate according to the toxicity level of the sodium and/or chloride. Low salts indicates that the compost can be applied without risking salt toxicity, is likely a good source of organic matter, and that nutrients will release slowly over time.

### Lime Content (lbs. per ton)

31 High lime content Compost high in lime or carbonates are often those produced from chicken manure (layers) ash materials, and lime products. These are excellent products to use on a receiving soil where lime has been recommended by soil analysis to raise the pH. Composts with a high lime content should be closely considered for pH requirements when formulating potting mixes.

### Physical Properties

#### Percent Ash

47.3 Average ash content Ash is the non-organic fraction of a compost. Most composts contain approximately 50% ash (dry weight basis). Compost can be high in ash content for many reasons including: excess mineralization (old compost), contamination with soil base material during turning, poor quality feedstock, and soil or mineral products added. Finding the source and reducing high ash content is often the fastest means to increasing nutrient quality of a compost.

### Particle Size % > 6.3 MM (0.25")

4.9 May restrict use Large particles may restrict use for potting soils, golf course topdressings, seed-starter mixes, and where a fine size distribution is required. Composts with large particles can still be used as excellent additions to field soils, shrub mixes and mulches.

### Particle Size Distribution

Each size fraction is measured by weight, volume and bulk density. These results are particularly relevant with decisions to screen or not, and if screening, which size screen to use. The bulk density indicates if the fraction screened is made of light weight organic material or heavy mineral material. Removing large mineral material can greatly improve compost quality by increasing nutrient and organic concentrations.

|                                                                                                                                                                                                                                                                          |                                                                                                                                                                                                                               |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Appendix:                                                                                                                                                                                                                                                                | Estimated available nutrients for use when calculating application rates<br>lbs/ton (As Rcvd.)                                                                                                                                |
| Plant Available Nitrogen (PAN) calculations:<br>$PAN = (X * (\text{organic N})) + ((\text{NH}_4\text{-N}) + (\text{NO}_3\text{-N}))$<br>X value = If BAC < 2 then X = 0.1<br>If BAC =2.1 to 5 then X = 0.2<br>If BAC =5.1 to 10 then X = 0.3<br>If BAC > 10 then X = 0.4 | Plant Available Nitrogen (PAN) 2.7<br>Ammonia (NH <sub>4</sub> -N) 0.28<br>Nitrate (NO <sub>3</sub> -N) 0.10<br>Available Phosphorus (P <sub>2</sub> O <sub>5</sub> *0.64) 6.1<br>Available Potassium (K <sub>2</sub> O) 24.1 |
| Note: If C/N ratio > 15 additional N should be applied.                                                                                                                                                                                                                  |                                                                                                                                                                                                                               |



**Attachment 6: De-packaging, anaerobic digestion and biomass gasification information**



(949) 646-9731

**Olympic**

*wire and equipment, inc.*

[www.OlympicEquipment.com](http://www.OlympicEquipment.com)

**Olympic Wire and Equipment, Inc.**

# THOR -Turbo Separator Proposal for: XYZ Co.

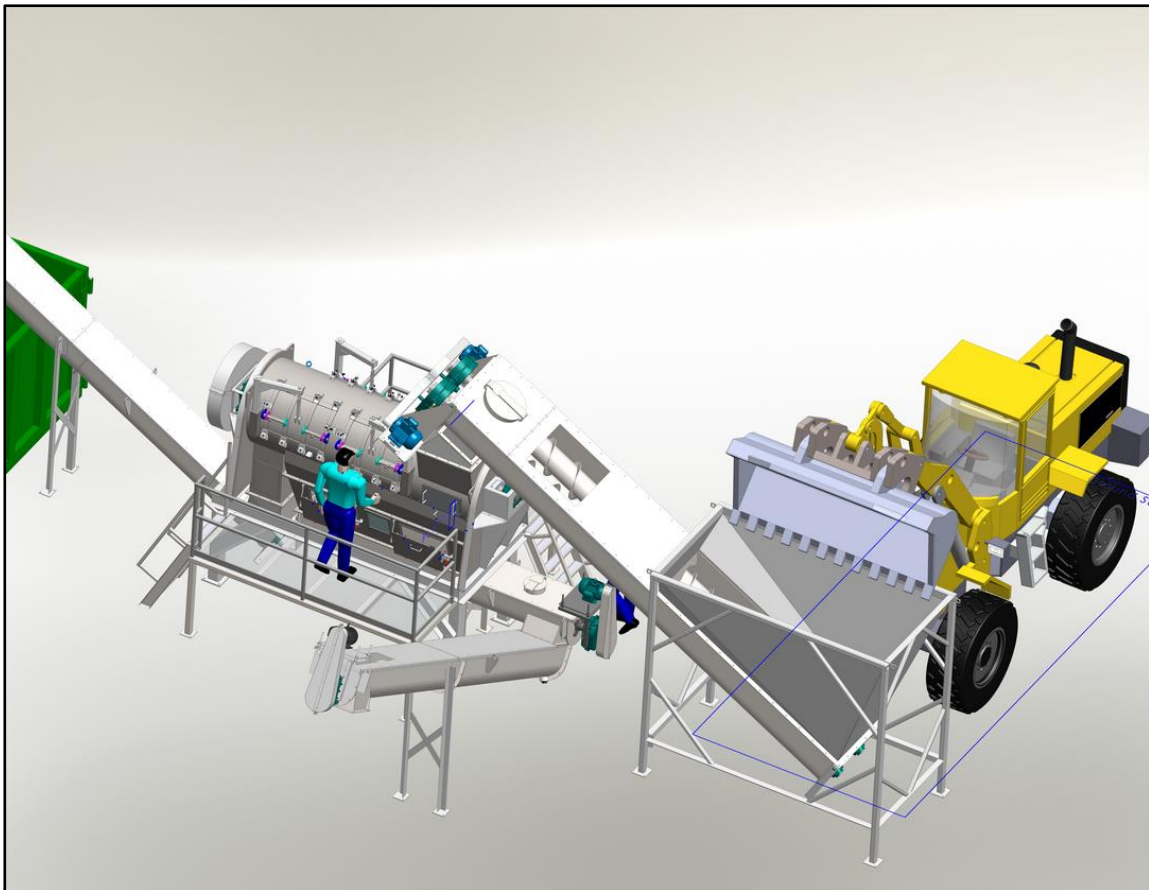
Greg

GM

Napa Recycling

820 Levetin Way

Napa, CA: 94559



(949) 646-9731

**Olympic**

*wire and equipment, inc.*

[www.OlympicEquipment.com](http://www.OlympicEquipment.com)



# TURBO SEPARATOR

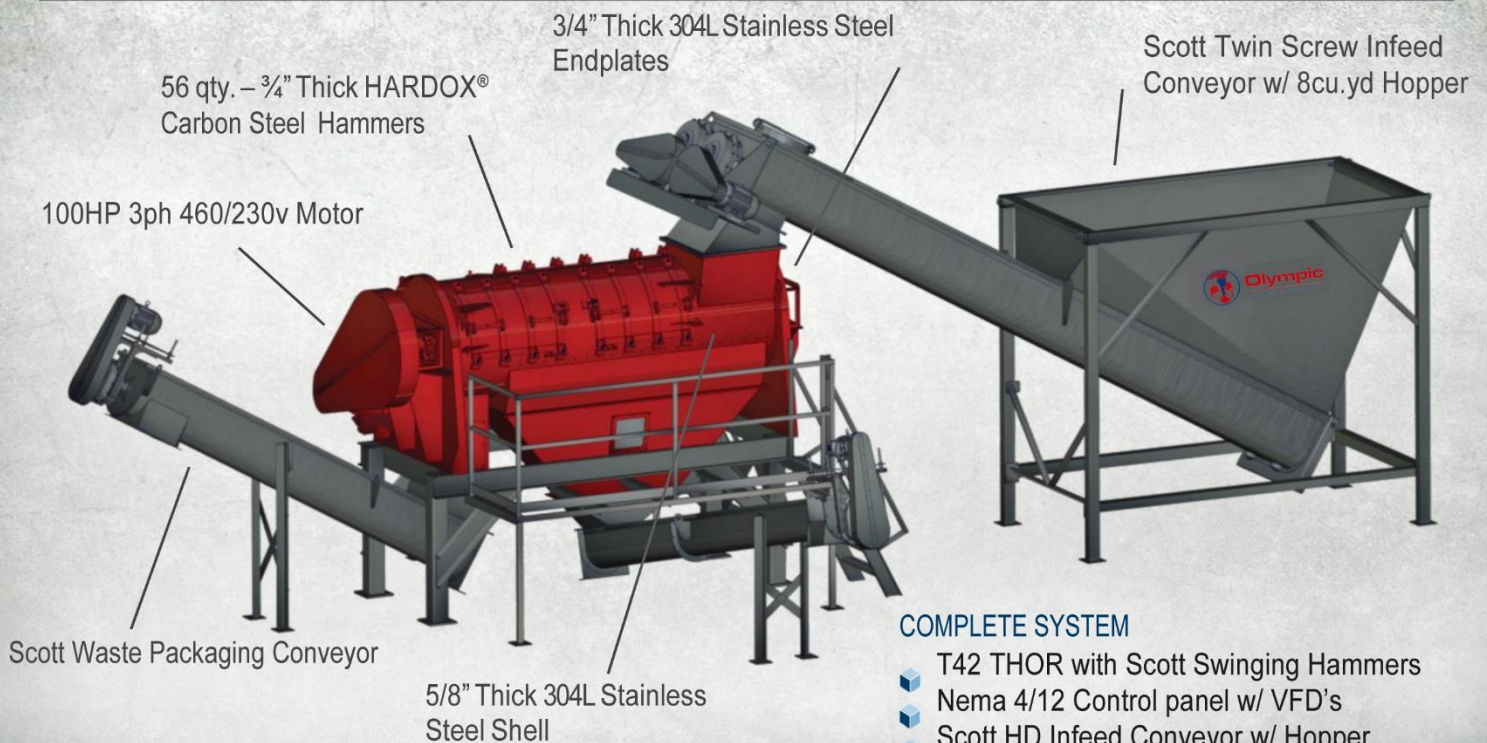
## ORGANIC WASTE DEPACKAGING/SEPARATION SYSTEM

Introducing the latest in depackaging performance and flexibility, the T42 THOR with patented Scott Swinging Hammers

# THE THOR

RATES UP TO 20 TON PER HOUR

Anaerobic Digesters  
Compost Operations



### COMPLETE SYSTEM

- T42 THOR with Scott Swinging Hammers
- Nema 4/12 Control panel w/ VFD's
- Scott HD Infeed Conveyor w/ Hopper
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- Options: Integrated Pump, 316 Stainless Build, Magnetics & Multicrusher

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## SMARTFERM Technology

SMARTFERM is a state-of-the-art dry anaerobic digestion system that processes organic waste feedstocks and generates renewable natural gas. SMARTFERM systems can include biogas-processing technology for combined heat and power (CHP) generation as well as compressed natural gas (CNG). In addition, in-vessel composting (IVC) options can provide partial or complete maturing of compost for the wholesale or retail market.

Based on the amount of organic waste to be processed, SMARTFERM is offered on two platforms: shop fabricated steel digesters or cast-in-place (CIP) concrete digesters. A basic prefabricated SMARTFERM features steel fabricated digesters, requiring a minimal amount of space. The cast-in-place concrete SMARTFERM digester system combines the SMARTFERM's modular mechanical and electrical systems design with on-site construction of concrete digesters. SMARTFERM facilities can process over 4,000 TPY of any organic waste.

The space-efficient, prefabricated, scalable modular system is manufactured in the U.S. by Marathon Equipment Company, one of the solid waste industry's most respected brands of waste handling and recycling equipment. Marathon is part of Environmental Solutions Group, a division of Dover Corporation.

*"Because AD to biofuel using food material as the primary feedstock is a carbon negative system (as verified by CARB), the City of Napa will be able reduce its overall emissions by over 30% compared to 2010 levels. This is more than double the goals of the City's adopted Sustainability Plan and achieves the reduction 2-3 years earlier than the plan's target date of 2020."*

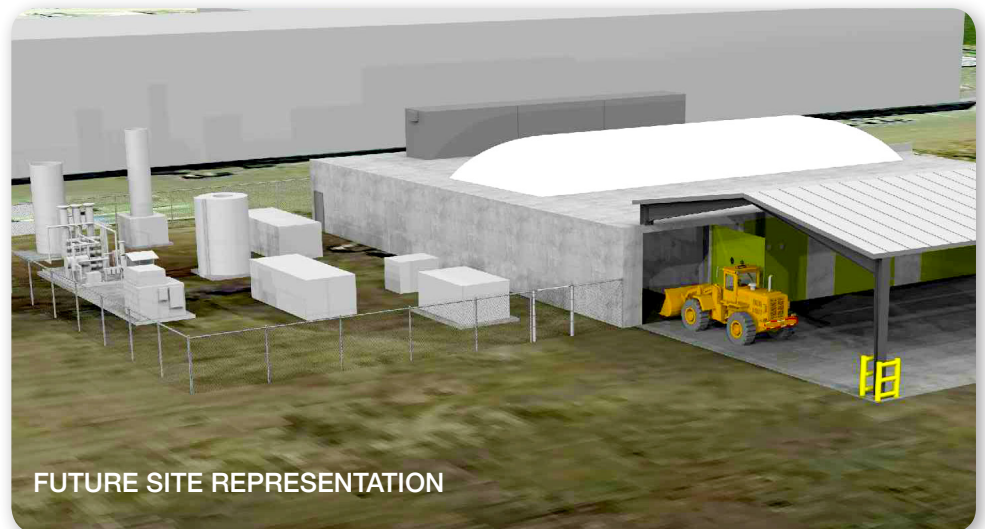
— Kevin Miller

## CITY OF NAPA BIOGENIC CNG FACILITY

The City of Napa and Napa Recycling and Waste Services, LLC are working with Zero Waste Energy (ZWE) to develop an anaerobic digestion (AD) to biofuel project that will help the City of Napa achieve California AB32, AB340 and AB1826 goals as well as City goals, seeking to reach 75% total landfill diversion and increase organic waste recovery from food services businesses by 2020. Successful pilot programs have been underway for both the proposed business and residential diversion programs. The commercial food program will expand service to over 200 businesses up to 5 times a week. Approximately 25,000 tons per year of yard and food waste will be processed via the SMARTFERM facility and generate the equivalent of 330,000 diesel gallons (DGE) to fuel the waste collection fleet. This is a biogenic process, meaning it produces something from living organisms, such as the organic waste that breaks down to produce methane gas. The ZWE AD project will begin preliminary construction efforts in 2015 and will be fully operational in 2017.

*"Our dry Anaerobic Digestion to biofuel project with Zero Waste Energy will help us reach environmental sustainability goals, such as AB 32, AB341, AB 1826 and City goals earlier and more effectively than we could have otherwise hoped to achieve. ZWE's technology was selected through a thorough and comprehensive process and was the clear choice to help Napa complete the food-to-fuel cycle. Not only will the City of Napa be able to meet and exceed a 75% diversion level several years early, but it will provide the City-owned facility the ability to capture our community's organic waste (along other organic waste from the North Bay) and convert into over 330,000 DGE of renewable and clean compressed natural gas for local collection vehicles. This is the true embodiment of a local and environmentally sustainable system that is a win-win-win for the City of Napa, the local environment and the community as a whole."*

— Kevin Miller, City of Napa Materials Diversion Administrator (Recycling Manager)



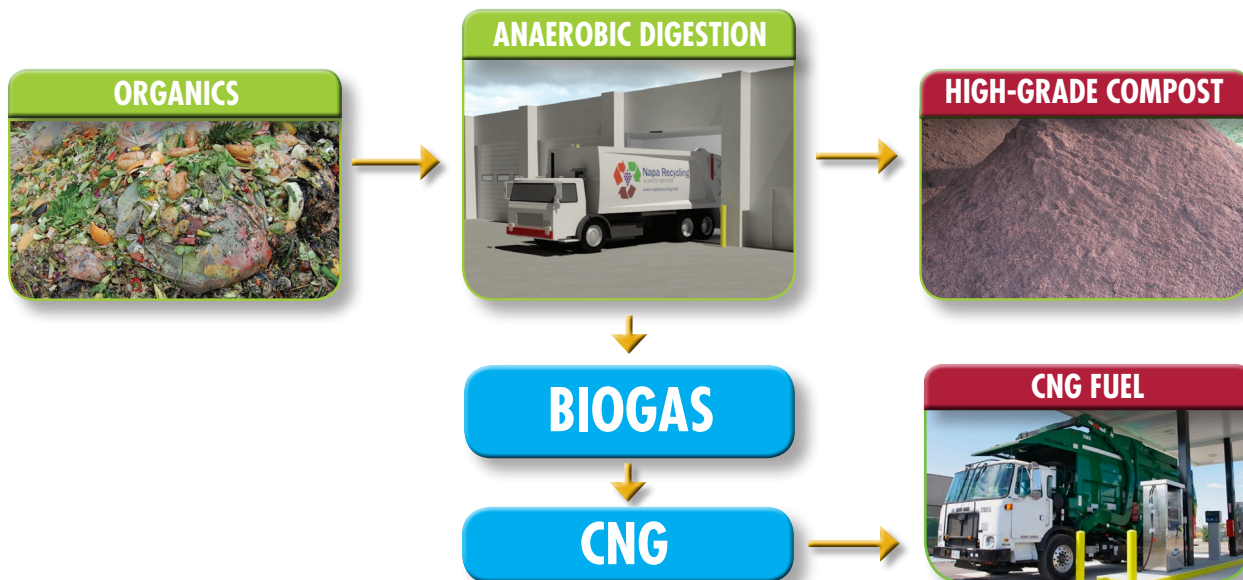
FUTURE SITE REPRESENTATION

- 5 dry AD Concrete SMARTFERM digesters
- Up to 25,000 tons per year of organic waste throughput
- Fueling station capable of 2 fast-fill fueling options and 16 time-filled fueling options
- 21-day batch process transforms waste into biogas and digestate for high-quality compost

## Benefits of AD System in Napa

- Enables City of Napa to reach 75% diversion from landfill
- Achieves California AB32, AB340 and AB1826 sustainability goals with SMARTFERM
- Produces enough bio CNG to fuel up to 36 Napa collection trucks
- Provides digestate for the production of high-quality compost
- Offers economic savings based on current tipping fees
- Scalable system provides custom solutions tailored to the City of Napa

| SMARTFERM AD Process            | Results                                                    |
|---------------------------------|------------------------------------------------------------|
| Maximum Annual Volume           | 25,000 TPY                                                 |
| Digester Dimensions             | 97' x 18.2'                                                |
| Concrete Digesters              | 5                                                          |
| Residence Time                  | 21 Days                                                    |
| Mode of Operation               | Thermophilic (125°-131°F)                                  |
| Biogas Yield (CF/Ton)           | 3,000 - 3,200                                              |
| Methane Content (%)             | 58 - 62                                                    |
| Compressed Natural Gas (DGE/yr) | 330,000 - Estimated<br>(will fuel approx. 36 trucks daily) |



## **BIOMASS POWER PLANT**

The operators of the City of Napa Material Diversion Facility (MDF) proposes to add a biomass power plant that uses clean processed wood waste in a gasification unit at the location adjacent to where the MDF is now located. The Site Map 1 shows the Elevation View of the Biomass Gasification Plant, and Site Map 2 shows the Plan View of the Biomass Gasification Plant. MDF will stockpile processed wood chips adjacent to the in-feed conveyor at the operations pad to provide wood chips to the gasification chamber of the plant. A minimum of 2 days of feedstock, or 80 tons of wood chips, or 400 CYD, is required to be next to the feed conveyor, where the remaining wood chips will be stored at the compost facility.

The overall greenhouse gas benefit of the Biomass Gasification Plant could be 7,035 metric tons of GHGs avoided. The amount of volatile organic compounds (VOCs) would stay under 1.5 tons per year, and be able to be permitted by the Bay Area AQMD.

### **Biomass Gasification Unit**

#### *Fuel Types*

The Biomass Gasification Plant will be design to handle 40 TPD of biomass feedstock and will be operating 24 hours per day, 7 days per week, with about 6 planned maintenance days per year. The following biomass material types will be used: (1) Wood, wood chips, and wood waste; (2) Agricultural crop residuals; (3) Bark, lawn, yard, and garden clipping; (4) Leaves, silvicultural residue, and tree and brush pruning. The primary fuel type will be wood chips from on-site wood grinding operations. Agricultural crop residuals from vineyard wastes and biomass waste from quarantined materials such as Sudden Oak Death could be treated at the biomass gasification unit.

#### *Fuel Storage*

A minimum of 2 days of feedstock, or 80 tons of wood chips, or 400 CYD, is required to be next to the feed conveyor, where the remaining wood chips may be stored elsewhere. The size of the pile will not exceed 15 feet in height, and will have a minimum of 20 feet fire lane around the perimeter of the pile.

#### *Fuel Sources*

Most of the wood chips will be generated at the composting facility from incoming loads of green and yard waste that will be screened, where the overs will be processed into wood chips.

#### *Aesthetics*

The proposed Biomass Gasification Plant will be located adjacent to the MDF. The Unit will peak out at 41 feet as shown on Figure 1. Most of the mass of the unit will be less than 20 feet tall. The in-feed conveyor and the biomass feed into the chamber will be 41 feet in an area of less than 25 feet by 25 feet.



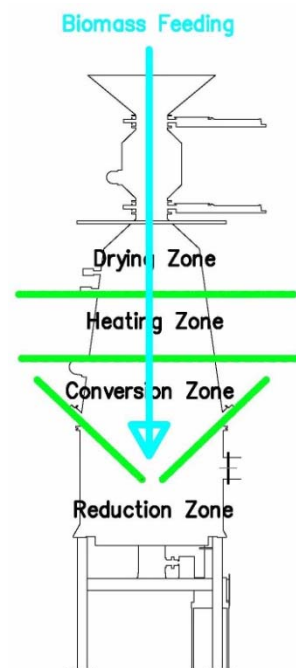
### *Biomass Gasification Operations*

The applicant proposes to add biomass gasification to produce electricity out of the clean processed materials that are currently recovered at the compost facility. The applicant proposes to utilize 40 TPD of clean wood chips to generate approximately 1 MW of electricity. The biomass gasification facility will only receive clean processed wood chips, and will obtain the necessary air permits from the BAAQMD. The electricity is considered renewable power and is sold to the utilities for their achievement of the state mandate of utilizing 33% renewable energy by 2020.

The applicant proposes to use technologies that convert biomass into a synthetic natural gas (syngas) through the process of thermo-chemical conversion in a gasification unit. This syngas is then used to fuel a specially modified natural gas genset that provides renewable electricity and heat. The biomass gasification process is a thermo-chemical one that ‘cooks’ biomass in an oxygen starved environment. By depriving the fuel of sufficient oxygen the biomass does not burn, but rather gives off a hydrogen rich syngas. As the biomass gives off the syngas, it is transformed into bio-char and ash of approximately 3-5% of the volume of biomass fuel. The syngas is then captured, cleaned and cooled before being sent as fuel to the Genset. The gensets are provided by a variety of nationally known vendors such as Cummins, Caterpillar, or GE. This ensures that there are readily available spare parts and maintenance technicians available locally. The bio-char has demonstrated ability to sequester carbon in solid form for upward of 1,000 years if applied as a soil amendment.

A conveyor fed hopper provides the most flexible solution to deliver biomass wood chips into the unit into the fuel hopper. Once in the hopper, the system uses a robust platform and fuel metering sensors to continuously feed the conversion unit in small batches as needed.

The biomass gasification, or conversion, chamber as shown in the adjacent figure is essentially a chemical reactor where various complex thermo-chemical processes take place. As it flows through the reactor, the biomass gets dried, heated, converted into gas and reduced into bio-char and ash. Although there is a considerable overlap, each process can be considered to be occupying a separate zone, in which fundamentally different chemical and thermal reactions take place. The fuel must pass through all of these zones to be completely converted. The downdraft conversion unit, employed by the technology, is under vacuum drawn by a high-pressure blower (“negative air”). The essential characteristic of the downdraft design is that the tars given off in the heating zone are drawn through the conversion zone, where they will be broken down or oxidized. When this happens, the energy they contain is usefully recovered and the mixture of gases in the exit stream is relatively clean. Expected total gas contaminant concentration prior to filtration is up to 100 times less than is often seen in updraft and fluid bed systems.



### *Gas cleansing*

After the syngas has been extracted from the conversion chamber it is cooled and cleaned by a series of scrubbers and filters. First the gas passes through a venturi scrubber, which is known to remove particulate in the submicrometer range. The gas is then passed through a series of four filters. The first is a coarse filter to coalesce residual liquids. The second is a rejuvenating active sawdust filter, the third is a similar passive filter, and the fourth is a fabric bag filter. The filter media are sawdust and biomass chips so instead of using expensive synthetic filters that need to be thrown away, the used filter media can be simply placed into the fuel hopper and consumed.

### *Power Generation*

The power units are based on a spark-ignited engine genset. Depending on the model chosen, the engines are capable of providing up to 1 mega-watt (net) operating on syngas. The applicant will customize to allow syngas carburetion for this engine and provide standard paralleling switchgear for electrical output with up to 1 mega-watt.

The applicant plans to utilize a CAT 3516 or the Cummins 1710 as the most attractive engine options. These engines also have unique features of better fuel economy, better emissions, durability, and extended oil and filter change period. Both CAT and Cummins engines have been designed to combine compact size, low emission levels and excellent performance characteristics of high-speed technology with the medium speed benefits of water-cooled exhaust valve seats, steel-crown pistons & combustion control. A Bay Area Air Management Quality District Permit to Operate will be obtained. The San Joaquin Valley Air Pollution Control District has issued a Permit to operate for similar biomass conversion unit.

### *Bio-char & Ash Handling*

Bio-char & ash is removed from the conversion chamber using pumped slurry. Scrubbed particulate is combined with the bio-char stream. A closed water loop is used for cooling as well as to provide a seal to the bottom of the gasifier. Water slurry level is maintained in a tank and pumped to an automated filter. The automated filter is typical for river sludge treatment and separates the solids from the recirculated water. The char byproduct, also called biochar, is separated out using a special mechanical separator for resale as a soil amendment, sequestering carbon in the ground in solid form for up to 1,000 years. Water leaving the filter is passed through a final stationary filter prior to heat exchange. The scrubbing water is absorbing heat from the product gas and must be cooled in a cooling tower prior to returning to the closed-loop scrubber.

### **Emission Estimates**

An **Authority to Construct** was granted to a similar biomass power plant using gasification technologies by the San Joaquin Valley Air Pollution Control District (SJVAPCD) for a project to produce syngas from biomass feed stocks (SJVAPCD, 2009). The emissions estimates in this

document are based on the permit limits placed on the engine by the SJVAPCD. Those limits are shown in Table 1.

**Table 1. SJVAPCD Permit Limits for Biomass Gasification Energy Production**

| Constituent | SJVAPCD Permit Limit |
|-------------|----------------------|
| NOx         | 9 ppmv @ 15% O2      |
| Sox         | 0.03 g/hp-hr         |
| PM-10       | 0.05 g/hp-hr         |
| CO          | 75 ppmv @ 15% O2     |
| VOC         | 25 ppmv @ 15% O2     |

The following parameters are used in the estimate of emissions (Table 2):

**Table 2. SJVAPCD Permit Limits for Biomass Gasification Energy Production**

| Parameter               | Value             | Source                   |
|-------------------------|-------------------|--------------------------|
| Power Generation        | 1 MW              | Applicant                |
| Syngas Heat Content     | 131 Btu/scf       | ATC – Application Review |
| Syngas F-Factor         | 7,648 dscf/MMBtu  | ATC – Application Review |
| Engine Efficiency       | 30%               | Typical for IC Engine    |
| Thermal Energy Required | 273 MMBtu/day     | Calculated               |
| Syngas Flow to Engine   | 2,083,861 scf/day | Calculated               |

Constituent limits given in terms of ppmv are converted grams per day using the calculations shown below.

$$\text{EF-NOx} = (9/10^6) * (7,648 \text{ dscf}_{\text{out}}/\text{MMBTU}) * (131 \text{ MMBtu}/\text{MMscf}) * (2.083861 \text{ MMscf}/\text{day}) * (46 \text{ lb}/\text{lb-mole}) * (1 \text{ lb-mole}/379.5 \text{ scf}) * (453.6 \text{ g}/\text{lb}) * ((20.9/(20.9 - 15)))$$

$$\text{EF-NOx} = \mathbf{3,660 \text{ g/day}}$$

$$\text{EF-CO} = (75/10^6) * (7,648 \text{ dscf}_{\text{out}}/\text{MMBTU}) * (131 \text{ MMBtu}/\text{MMscf}) * (2.083861 \text{ MMscf}/\text{day}) * (28 \text{ lb}/\text{lb-mole}) * (1 \text{ lb-mole}/379.5 \text{ scf}) * (453.6 \text{ g}/\text{lb}) * ((20.9/(20.9 - 15)))$$

$$\text{EF-CO} = \mathbf{18,564 \text{ g/day}}$$

$$\text{EF-VOC} = (25/10^6) * (7,648 \text{ dscf}_{\text{out}}/\text{MMBTU}) * (131 \text{ MMBtu}/\text{MMscf}) * (2.083861 \text{ MMscf}/\text{day}) * (16 \text{ lb}/\text{lb-mole}) * (1 \text{ lb-mole}/379.5 \text{ scf}) * (453.6 \text{ g}/\text{lb}) * ((20.9/(20.9 - 15)))$$

$$\text{EF-VOC} = \mathbf{3,536 \text{ g/day}}$$

Constituent limits in units of grams per brake horsepower-hour (g/bhp-hr) are converted to g/MW-hr using the conversion of 1,341 g/bhp-hr = 1 g/Mw-hr (CARB Fleet Emission Calculator), and further converted to grams per day.

$$\text{EF-Sox} = \mathbf{966 \text{ g/day}}$$

**EF-PM10 = 1,609 g/day**

### **Criteria Pollutant Emissions**

Annual criteria pollutant emissions are shown in Table 3. The annual emissions provided assume that the engine-generator set operates 24 hours per day, 365 days per year, generating 1 MW of power.

**Table 3. Annual Criteria Pollutant Emissions – SynGas Engine**

| Constituent                | Annual Emissions<br>Lbs./year |
|----------------------------|-------------------------------|
| Volatile Organic Compounds | 2,846                         |
| Carbon Monoxide            | 14,941                        |
| NOx                        | 2,946                         |
| PM10                       | 1,295                         |
| SOx                        | 777                           |

The engine-generator system will be shut down from time to time for maintenance or repair. In this case, the gasifier would either be shut down and the wood chip fuel alternatively managed, or the syngas would be routed to a flare with lower emissions impacts than the gasifier.

### **Greenhouse Gas Impacts of Biomass Gasification**

Carbon Dioxide from the Biomass Gasification Unit will be biogenic as it derives from waste wood biomass. However, there is a small amount of methane generated that would contribute slightly to the overall greenhouse gas impact. GHG emissions are reduced by offsetting utility-provided power and storage of carbon in biochar.

#### Genset Methane Pass Through Emissions

The type of downdraft biomass gasification system proposed typically produces a syngas consisting of 2 to 5% methane (see “Parametric Study of a Commercial-Scale Biomass Downdraft Gasifier: Experiments and Equilibrium Modeling”, Gopal Gautam, thesis submitted to the Graduate Faculty of Auburn University, Alabama, December 2010). The “Authority to Construct Application Review”, conducted by the San Joaquin Valley Air Pollution Control District in 2008, refers to a methane concentration of 3%. The syngas passes through a filter system and then is combusted in an internal combustion engine. Internal combustion engines typically have destruction efficiencies for methane of 98.3% (see SCS Engineers, Current MSW Industry Position and State of the Practice on Methane Destruction Efficiency in Flares, Turbines, and Engines, July, 2007).

Based on the San Joaquin Valley Project, an annual syngas flow of 651,950,777 ft<sup>3</sup>/year is anticipated. At a methane concentration of 3%, a methane density of 0.668 kg/m<sup>3</sup>, a destruction efficiency of 98.3% and a global warming potential of 21, the annual greenhouse gas emissions from the Biomass Gasification Unit are 220 MTCO<sub>2</sub>e/year.

### Avoided Utility Emissions

The Biomass Gasification Facility will generate 1 MW of electric power. The facility's parasitic power requirements and occasional down time for maintenance reduce the available power supply to about 750 kW, which will offset utility-provided electricity. The greenhouse gas benefits of generating on-site biogenic energy are estimated using the Climate Registry emission factor for utility-provided electricity in California. Utility provided electric power in California has a carbon intensity of 309 kg CO<sub>2</sub>e per MWhr provided (Climate Registry General Reporting Protocol), and includes only anthropogenic power sources. Using this emission factor and considering that the power generated from the biomass gasification unit is biogenic and will provide 750 kW of power to the grid, it will displace 2,037 MTCO<sub>2</sub>e of indirect anthropogenic electricity emissions per year.

### BioChar Carbon Storage

Phoenix Energy made the following measurements at an operating facility:

- 247 lbs/hr of biochar production
- 0.75 tons per hour of wood feedstock input @ 11% moisture content
- Which gives 0.668 lbs. dry wood per hour

Biochar characteristics from a test done by Soil Control Lab in Watsonville:

- Moisture content = 8.6%
- Organic carbon content (dry) = 90.8%

Proposed MDF facility:

- 40 tons per day of wood feedstock
- 30% moisture content (typical)
- Which gives 28 tons dry wood per day

### Carbon in Biochar

Based on these parameters, this is 10,361 lbs. of biochar (wet) per day, or 3,781,783 dry lbs. per year, which is 3,138,547 dry lbs of stored carbon per year. Note that this wood would otherwise be trucked to an off-site biomass energy plant for combustion; therefore, avoided emissions at the biomass energy facility would be approximately;

$$(3,138,547 \text{ dry lbs of stored carbon per year}) / (44/12) / 2,205 = \mathbf{5,219 \text{ MTCO}_2}$$

Therefore, the overall GHG impact of the Biomass Gasification Plant is:

$$220 \text{ MTCO}_2\text{e (emitted)} - 2,036 \text{ MTCO}_2\text{e (avoided)} - 5,219 \text{ MTCO}_2\text{e (avoided)} = - 7,035 \text{ MTCO}_2\text{e}$$



## **Attachment 7: Injury & Illness Prevention Plan**

**Napa Recycling**  
**Injury Illness Prevention Plan**  
**Rev. 2017**



**Napa Recycling  
Injury & Illness Prevention Program  
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# Policy Statement

## INTRODUCTION

### 1 HEALTH & SAFETY POLICY STATEMENT

---

It is the policy of Napa Recycling that the safety of our employees is the most vital aspect of our operations. Employee safety must be considered above anything else when planning, carrying out a job, or purchasing equipment for jobsite use.

As an employer, we fully intend to comply with Cal/OSHA standards and the best practices of our industry. We identify and correct recognized hazards on the jobsite, and establish this policy along with other policies and procedures that allow our employees to work in a safe and healthy workplace. Our goal is to correct any hazardous conditions which present a danger to our employees.

Management is committed to provide the leadership, training, and funds necessary to carry out all operations in a safe manner. We are committed to eliminate unsafe practices and conditions on the jobsite.

This manual is designed to be used as a guide to jobsite safety. Since all unsafe conditions or scenarios cannot be covered, common sense must guide all employee actions. Our ultimate goal is that no one gets hurt; period.

We wish to eliminate employee injuries to ensure employee health, to maintain employee's ability to support their family, to eliminate any loss of production, to maintain our excellent safety record, and to minimize insurance and worker's compensation costs.

Michael Murray

CFO

August 2017

# Injury & Illness Prevention Program Components

## ONE: RESPONSIBILITIES

---

Management is responsible for ensuring that all safety and health policies and procedures are clearly communicated and understood by all employees. Managers and supervisors are expected to enforce the rules fairly and uniformly.

### Senior Management

- A. The main function of senior management is to adopt safety policies and to visibly support the safety effort.
- 1- Direct the implementation of the safety program and to formulate and/or approve safety policies.
  - 2- Designate a Health & Safety Administrator (s) and provide for appropriate authority to carry out duties.
  - 3- Approve major changes in the safety program or changes in the organization of the same.
  - 4- Respond promptly to loss control recommendations regarding the management duties relative to the safety program.
  - 5- Visibly show support for the Health & Safety Program.

A Senior Management Safety Team has been established which consists of the following individuals:

- Michael Murray, CFO
- Greg Kelley, General Manager
- Steve Manasse, Operations
- Grant Ingalls, Safety Manager

**The day-to-day safety administration is shared the responsibility of Grant Ingalls, Safety Manager.**

### Safety Administrator(s)

- A. The main function of the Safety Administrator(s) is to delegate the responsibilities of the program and to monitor and direct these activities.
- 1- Coordinate safety program implementation with company management and employees.
  - 2- Organize safety training meetings for company employees.

- 3- Conduct periodic reviews of the Health and Safety Program to determine if all safety programs are in place.
- 4- Receive and follow up on safety paperwork: Incident Reports, Safety Documentation, New Hire Orientation documentation, etc.
- 5- Maintain an awareness of site conditions and situations relative to the safety program.
- 6- Provide Supervisors with safety programs and related paperwork: Safety Information, Incident Investigation Forms, etc.

## **Supervisors**

A. The Supervisors at Napa Recycling are the front line staff responsible for the day to day safety. It is critical that all aspects of the safety program are followed and supported. The example of the Supervisors will have a significant impact on the employee's perception of the safety program. The following are identified as duties of Supervisors:

- 1- Maintain safety as a top priority.
- 2- Enforce and follow all safety rules.
- 3- Personally use all safety equipment and follow safety rules.
- 4- Conduct regular informal safety inspections of the jobsite.
- 5- Investigate all incidents.
- 6- Report any injuries, including minor ones, immediately when the injury occurs.
- 7- Conduct documented Health & Safety training
- 8- Provide safety orientation for all new employees.

### **9- SUPPORT THE SAFETY PROGRAM AND SET A POSITIVE EXAMPLE.**

## **Employees**

A. On the job incidents can lead to employee injury. Therefore, the employee has a major responsibility to work safely. The following are identified as duties of the Employee:

- 1- Become familiar with, and comply with the Code of Safe Practices and specific work procedures as they apply to their area of authority.
- 2- Attend and participate in training sessions as scheduled.
- 3- Report all injuries and near miss incidents immediately to their supervisor.
- 4- Report unsafe conditions and work practices to their supervisor.
- 5- Stop any and all work if there is a real or perceived safety related concern
- 6- SUPPORT THE SAFETY PROGRAM.

## TWO: COMPLAINT

---

Our Injury & Illness Prevention Program ensures that employees comply with safe and healthful work practices. Compliance with this provision includes recognition of employees who follow safe and healthful work practices, training and retraining programs, disciplinary actions, or any other such means that ensures employee compliance with safe and healthful work practices. To this end Napa Recycling has identified hazards which employees may be exposed, have developed effective training programs as required and hold employees accountable to follow safe and healthy workplace rules.

### **Disciplinary action**

Violation of company policies generally result in disciplinary action which may include any one or more of the following: Verbal, written, final, or other forms of discipline. [Form 1 – Coaching and Counseling Notice.](#)

The company reserves the right to determine when conduct violations have occurred and how they will be handled. Napa Recycling is an “at-will” employer. We do not utilize a progressive disciplinary procedure and disciplinary action will not follow any particular order. When disciplinary action is necessary, the company will consider each case individually. All employment actions, including discipline, are applied without unlawful discrimination. If an employee violates a safety policy that results or may result in serious injury or death to another employee; we reserve the right to implement immediate termination of that employee.

### **Incentive program**

Safety is a company value and we view working safely as a condition of employment. The company does not have a formal incentive program. It is the company’s stated position that safe, pleasant, and efficient working conditions are of great concern to the company and we are all constantly striving to improve these conditions. We also recognize that safety and good housekeeping are necessary parts of our daily activity and we believe that it is everyone’s responsibility to actively work to prevent workplace injuries.

In keeping with our workplace safety philosophy, the company periodically recognizes safe practices, provides training and retraining, conducts disciplinary actions, or takes action to ensure we maintain a culture of safety.

### **Training, Retraining, and Accountability**

Everyone is accountable for safety; however, the company has identified specific safety activities that managers and supervisors are responsible for. These activities include conducting safety meetings, inspections, accident investigations, attendance at training sessions, and accident rate performance. Performance in these and additional safety activities is maintained and may be included in an annual performance appraisal. To this end, the company may also identify hazards and opportunities (after an injury or incident) where training and retraining programs may be required.

## **THREE: COMMUNICATION**

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Our IIPP provides a system to communicate with employees about safety and health matters, including an anonymous way for employees to report safety and health concerns. Communication may take the form of posters, paycheck stuffers, training, re-training and use of an anonymous system of communication.

### **Initial Training**

New employees (and contract employees) attend a new hire orientation which includes a review of our workplace safety program. This includes but is not limited to:

- Site-specific safety and health policies and procedures
- Employees safety responsibilities
- Injury reporting procedures
- Emergency procedures
- Hazard identification and correction
- Safe Driving/ cell phone policy
- Job specific safety rules

### **Safety Meetings**

Qualified personnel or outside consultants conduct safety meetings at least two times per year. Safety meetings will be held more frequently if required based on accidents, new regulatory requirements, or employee concerns. Training will be conducted in a language that is readily understandable.

Meetings may include information on the following subjects as applicable but is not limited to:

- A. Review Code of Safe Practices, policies or procedures.
- B. On the Job or Off the Job safety information.
- C. Feedback from employees on hazards, and safety suggestions or concerns.
- D. Review of previous accidents, causes, and corrective actions.
- E. Recognition for compliance, and good safety performance or attitude
- F. New policies, equipment or procedures
- G. Safe driving
- H. Pedestrian Safety
- I. Supervisor and employee safety responsibility

Attendance at safety meetings is considered part of everyone's job. All meetings are documented in writing with the date, topic, and employee printed name & attendance signature.

Safety meetings are held periodically and/or when a situation arises that requires a more immediate review. Meetings are conducted in accordance with best practices and regulatory guidelines.

## **Safety Suggestions and Concerns**

Employees have an opportunity to make suggestions and/or express their concerns in various ways, including: 1) to their supervisor, 2) to the Safety Program Administrator, and 3) via the Safety Suggestion Form found in the employee breakroom. Employee suggestions may be made anonymously. In all cases, no employee shall be disciplined, demoted or otherwise discriminated against for making a suggestion and can do without fear of reprisal. [Form 2 – Employee Safety Suggestion Form.](#)

## **Written Communications**

Safety communications are posted which may include the following information: 1) on-the-job / off-the-job safety, 2) changes in safety procedures, 3) accident causes, 4) employee safety suggestions, and 5) other information as appropriate. In addition, the company may provide communication via e-mail, voice mail, or written memo.

## **Safety Committee**

Napa Recycling uses a safety committee comprised of various levels of staff and line employees to effectively communicate safety related information to employees. [Form 3- Safety Committee Meeting Minutes](#)

The objective of the safety committee is accident prevention. Safety committee meets to accomplish the following objectives

- Meets at least quarterly. The meetings will be facilitated by the program administrator(s) and or a member of senior management
- Reviews safety inspection findings to detect both, unsafe conditions and unsafe work methods
- Review accidents to determine root causes and control measures to prevent injury recurrence
- Follow up on the status of open or active safety recommendations and committee tasks.
- Members of the safety committee may be asked to assist in safety tasks such as participating in safety inspections and other assignments.

Minutes will be kept using by the safety committee secretary. Minutes are posted and will be made available to any employee who is interested. The meeting minutes serve to keep our meetings on track and our meeting time to a minimum.

## **FOUR: HAZARD ASSESSMENT**

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Our IIPP provides a system to evaluate workplace hazards. Hazards are identified when: 1) the IIPP was first introduced; 2) new substances, processes, procedures or equipment are introduced into the workplace that represents a new workplace safety or health hazard; and 3) whenever the company is aware of a new or previously unrecognized hazard.

Methods used to identify unsafe conditions and work practices include several different techniques, including the review of 1) pertinent safety policies, 2) scheduled inspection results, 3) employee/employees observations, 4) accident / incident investigation results, and 5) injury, illness, and loss trends 6) Job Hazard Analysis. [Form – 4 Job Hazard Analysis](#)

## **Safety Inspections**

Each site manager will conduct at a minimum; monthly inspections of their facility. These inspections will be documented and any hazards identified will be identified with a date for correction. [Form 12 – Monthly Health & Safety Inspection Check List](#)  
[Form – 13 – Vehicle Repair shop Inspection Checklist](#)

Hazards will be prioritized with the most hazardous given priority for correction in a timely manner. If a hazard is identified that cannot be corrected right away; employees will be protected by the hazard to prevent injury.

Employees authorized and trained to correct the hazard will be provided appropriate protective measures such as training, personal protective equipment and / or professional assistance.

The inspection includes an evaluation of work areas, equipment, housekeeping, work practices, and other regulatory items.

## **Outside Consultant Inspections and Surveys**

In addition to outside consultants, the company may bring in our insurance broker, carrier, and others to conduct onsite surveys.

## **Loss Trends Analysis and OSHA Logs**

We may review injury, illness, and loss trends to help us identify hazards, and identify training and communication opportunities to prevent injuries.

## **Codes of Safe Work Practices**

Napa Recycling has completed a hazard assessment and created general codes of safe practices that reflect general hazards in the workplace. These Codes of Safe Work Practices are reviewed with employees and all employees are held accountable to understand and follow these general safe Practices.

Codes of Safe Practices can be found in Appendix B of the Injury & Illness Prevention Program.

## **FIVE: ACCIDENT INVESTIGATION**

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### **Employee Reporting**

Employees must report every on-the-job injury or illness or incident, no matter how slight, to their immediate supervisor. Employees are to follow the following procedures whenever a job-related incident occurs:

- Report the incident no matter how slight, including any “near hit” incidents, and incidents of equipment or property damage to your supervisor immediately, no later than the end of your shift
- Inform your immediate supervisor as to what has occurred



- Assist in the filling-out of the necessary forms, and actively participate in the accident investigation process, if possible
- Keep your supervisor apprised of your status if the injury results in time away from work
- Obtain a Doctor's return-to-work statement prior to returning to work

### **Supervisor Reporting**

If an on the job injury is sustained, the following procedures should be followed:

- Supervisors must complete [Form 5 – Accident Investigation Report](#) as to a "root cause" loss investigation. If there were any witnesses, then [Form 6 – Accident/Incident Witness Statement](#) must be completed.
- Supervisors must provide and assist injured employees in completing the [Form 5020 Employers Report, "DWC 1 Employee's Claim for Workers' Compensation Benefits Form](#) within 24 hours. Note: if employees do not sign their medical release this will hinder payment to employee.
- For automobile accidents, use [Form 7– Driver's Report of Accident](#)
- The supervisor must immediately contact Grant Ingalls as soon as they are notified or have knowledge of any illness or injury.

### **Investigation Procedures**

Whenever there is an employee involved accident, near-hit incident, or damage to equipment/property occurs it is important that the injured employee receive immediate medical attention and care. Accident investigations are to be completed by the employee supervisor and/ or the program administrators. The investigation process is not intended to place blame or fault, but rather to determine root cause factors that contributed to the accident so that the proper measures can be taken to prevent recurrence of similar incidents. An objective of Napa Recycling safety committee meetings is to review accident investigations to assist in recommending appropriate corrective actions to prevent similar recurrence.

We have established an accident investigation process for this purpose. The individual responsible for initiating investigations shall be the immediate supervisor. [Form 5 – Accident Investigation Report](#) should be used whenever conducting accident investigations.

Accidents, near hits, and incidents involving damage to equipment/property shall be investigated as soon as possible. The investigation for the root cause(s) of accidents must be done to determine the true cause(s) of the accident. The implementation of specific recommendations/suggestions resulting from accident investigations is the direct responsibility of the immediate Supervisor/Manager.

Accident/Incident investigations process will include:

- Visiting the incident scene as soon as possible, while the facts are fresh, and before witnesses forget important details.

- Identifying who was injured and the nature of the injuries. If possible, interview the injured employee at the scene of the accident and “walk” him or her through the re-enactment.
- Identify what the employee was doing at the time of the accident.
- Include specific root cause(s) of accident. Focus on causes and hazards. Describe what happened, how it happened, and why it happened.
- Document the incident details. Use sketches, diagrams, and photographs. Take measurements when appropriate, and for some incidents you may need to preserve the scene by cordoning the area until the investigation is complete.
- If a third party or defective product contributed to the accident, save any evidence as this could lead to recovery of claim costs.
- Obtain names of other individuals involved/witnessed in the incident, and interview these witnesses
- Identify physical and behavioral factors that contributed to the accident
- Obtain information as to job training injured employee received
- List job procedures violated
- Control measures implemented as a result of the accident to prevent incident recurrence (Such corrective actions may involve employee training or retraining, changing of processes or procedures, correcting unsafe conditions, or a combination of the above.

### **Medical Treatment First Aid**

If an employee sustains an on-the-job injury, no matter how slight an injury, they are to notify their supervisor immediately. The supervisor will direct the injured employee to the appropriate medical facility. Napa Recycling has a designated list of medical provider health care facilities (MPN) for medical treatment.

In an emergency, the injured worker should go to the nearest hospital emergency room or call the local 911 emergency number for assistance. The injured employee must notify the treating facility that the injury/illness is work related.

After medical treatment, employee is responsible to keep supervisor apprised of recovery status if the injury results in time away from work, and to obtain a doctor's return-to-work statement prior to returning to work. If employee is released to return to work with any restrictions, Supervisors/Managers will assign temporary transitional duty assignments (modified duty) that the employee is physically capable of performing if such work is available.

### **Medical Definitions**

Serious Injury – [8 CCR 330(h)] - any injury or illness occurring in a place of employment or in connection with any employment which requires inpatient hospitalization for a period in excess of 8 hours for other than medical observation or in which an employee suffers a loss of any member of the body or suffers any serious degree of permanent disfigurement any injury or illness-related accident that results in:

- Death;

- Amputations involving the loss of bone or tissue;
- Loss of consciousness;
- Possible permanent functional impairment of a body part (excluding those resulting from a back strain)

First-aid only – any accident/incident which results in minor injury that can be treated in-house or by a physician that fits the definition of first under for Cal/OSHA Form 300 reporting purposes.

**First aid is limited to only:**

- Using a non-prescription medication at nonprescription strength (for medications available in both prescription and non-prescription form, a recommendation by a physician or other licensed health care professional to use a non-prescription medication at prescription strength is considered medical treatment for recordkeeping purposes)
- Administering tetanus immunizations (other immunizations, such as Hepatitis B vaccine or rabies vaccine, are considered medical treatment);
- Cleaning, flushing or soaking wounds on the surface of the skin;
- Using wound coverings such as bandages, Band-Aids™, gauze pads, etc.; or using butterfly bandages or Steri-Strips™ (other wound closing devices such as sutures, staples, etc., are considered medical treatment);
- Using hot or cold therapy;
- Using any non-rigid means of support, such as elastic bandages, wraps, non-rigid back belts, etc. (devices with rigid stays or other systems designed to immobilize parts of the body are considered medical treatment for recordkeeping purposes);
- Using temporary immobilization devices while transporting an accident victim (e.g., splints, slings, neck collars, back boards, etc.).
- Drilling of a fingernail or toenail to relieve pressure, or draining fluid from a blister;
- Using eye patches;
- Removing foreign bodies from the eye using only irrigation or a cotton swab;
- Removing splinters or foreign material from areas other than the eye by irrigation, tweezers, cotton swabs or other simple means;
- Using finger guards;
- Using massages (physical therapy or chiropractic treatment are considered medical treatment for recordkeeping purposes); or
- Drinking fluids for relief of heat stress.

## SIX: HAZARD CORRECTION

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Whenever appropriate, supervisor/manager/safety coordinator will correct work place hazards and unsafe work practices as soon as they are identified including after an accident or incident investigation. Including:

(a) when unsafe or unhealthful conditions, work practices or procedures are observed or discovered; and  
(b) when an imminent hazard exists which cannot be immediately abated without endangering employee(s) and/or property, all exposed personnel will be removed from the area except those necessary to correct the existing condition. Employees necessary to correct the condition must be provided the necessary safeguards.

1- When an accident or near-miss incident occurs

2- Hazards are prioritized based on their severity.

The supervisor/manager/safety coordinator will establish the correction, based on the following:

- **Imminent Hazard**: An Imminent Hazard is one that is immediately dangerous to all employees. Employees should stop activity and notify their supervisor/manager/safety coordinator who will take immediate corrective action. If the imminent hazard cannot be corrected immediately, the area shall be declared “off limits” and/or secured until the hazard is corrected.
- **Serious Hazard**: A Serious Hazard is one that has substantial potential to cause serious bodily injury such as loss of consciousness, amputation, fractures, or any other illness or injury resulting in a hospital stay of more than 24 hours.
- **General Hazard**: A General Hazard is one, which may affect the safety and health of employees and should be brought to the attention of the department supervisor and be corrected as appropriate.
- **Regulatory Item**: A Regulatory Item pertains to deficiencies in permits, postings, record keeping, reporting requirements, or procedures deficiencies not directly affecting the safety and health of the employees. These deficiencies will be corrected as appropriate.

Hazards will be documented on the [Form 8- Report of Unsafe Condition or Hazard](#) which will be reviewed routinely by Supervisors and provided to the Human Resources. Any Imminent Hazard or Serious Hazard will be brought to the immediate attention of the department supervisors and co-workers for immediate review and correction. Supervisors, Managers and Department Heads will be responsible for ensuring that all hazards are corrected in a timely manner. Corrective actions shall be documented using [Form 10 – Hazard Abatement](#) and made available for review. Employees will be protected from any

identified serious hazards until corrected. Those employees responsible for correcting the hazard will be provided with any required safeguards.

## **SEVEN: TRAINING**

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Training and education make up one of the most important elements of any safety program. Training permits employees to learn their job properly, brings new ideas into the workplace and reinforces existing ideas and practices.

Employees and supervisors shall be trained regarding the hazards to which they may be exposed and how to prevent injury to themselves and their employees. The supervisor/manager/safety coordinator is responsible for evaluating job hazards and assuring that training and safety information is provided for equipment, tasks and processes. The supervisor/manager/safety coordinator, in addition to coordinating general safety will provide assistance in obtaining safety training needs. Training shall be documented using [Form 9 – Employee Training Record](#).

Supervisors and managers are responsible to ensure that their employees receive applicable safety-related training for specific job tasks prior to assigning employees to perform that tasks and whenever a new process or equipment/material is introduced and whenever Napa Recycling is made aware of a new or previously unrecognized hazard.

For those areas that require periodic refresher training, the supervisor shall ensure that refresher training is provided in a timely manner.

New employees shall be provided with a New Hire Safety Orientation. A copy of the signed checklist shall be provided to Human Resources for inclusion into the employee's personnel file using [Form 11 - New Employee Safety Orientation](#).

Training is provided for supervisors to familiarize them with the safety and health hazards to which employees under their immediate direction and control may be exposed.

Supervisors shall provide employees with safety information relevant to the hazards associated with specific job duties. The orientation includes, but is not limited to, the following:

- Site-specific safety and health policies and procedures
- Employees safety responsibilities
- Injury reporting procedures
- Emergency procedures
- Hazard identification and correction
- Safe Driving/ cell phone policy

- Job specific safety rules
- Hazard communication information (Safety Data Sheets /SDS)
- Other job-specific hazard awareness information.
- Review of Safety Communications to include the location of written safety programs.
- How to report injuries, incidents and safety concerns.
- Were to get additional safety information.

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All new employees and any current employee undergoing a significant change in work assignment will be provided a safety orientation prior to performing work assignments. Review of any special training, certificates, or licenses that will be necessary before performance of certain assigned tasks. i.e. forklift, front loader, roll-off driver, maintenance shop, , sorters, scout drivers shall be evaluated for competency.

## **EIGHT: RECORDKEEPING**

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Essential records, including those mandated for Workers' Compensation, insurance audits and government inspections must be maintained for as long as legally required. Records that must be maintained include, but are not limited to, the OSHA 300 Log of Occupational Injuries and Illnesses; OSHA 300A Summary of Occupational Injuries and Illnesses, training records, scheduled and periodic inspections, incident and accident investigations, reports of unsafe conditions, employee exposures to toxic substances and Safety Data Sheets/SDS. Other records that should be maintained include, but are not limited to, equipment and building maintenance records and safety-related contractor work records. Inspection records shall be kept for no less than three years.

Employee safety training records shall be kept for a minimum 3 years or the length of employment plus 5 years. Industrial Hygiene reports such as noise level testing or air contaminant testing will required to be maintained for 30 years.

Inspection records shall be maintained for 3 years including documentation of corrective action taken to mitigate hazards is called for in the program.

### **Contractor safety**

Contractors providing services for Napa Recycling shall provide their employees with safe and healthful working conditions required by Federal and State Safety, Health and Environmental Regulations. Each contractor and/or vendor is responsible for complying with their own Injury and Illness Prevention Policy and all provisions of Federal and State OSHA, EPA and other regional safety, health and environmental regulations and standards.

Any chemical brought onsite to Napa Recycling must be accompanied by the most recent SDS sheet and kept on file by management onsite.



**Attachment 8: Sample monthly tonnage report**



**December 2017 Sonoma County tonnage report**

| Month         | VEHICLE  | MATERIAL | ORIG          | DESC   | TICKET | NET | QTY   | AMT    | CUST NAME            | MAT DESC  | Processing Area | DATE       | TONS  |
|---------------|----------|----------|---------------|--------|--------|-----|-------|--------|----------------------|-----------|-----------------|------------|-------|
| December 2017 | NORTHBAY | YW       | SONOMA COUNTY | 620451 | 27080  |     | 13.54 | 460.36 | NORTHERN RECYCLING-N | YARDWASTE | Composting Area | 12/01/2017 | 13.54 |
| December 2017 | NORTHBAY | YW       | SONOMA COUNTY | 620433 | 36540  |     | 18.27 | 621.18 | NORTHERN RECYCLING-N | YARDWASTE | Composting Area | 12/01/2017 | 18.27 |
| December 2017 | NORTHBAY | YW       | SONOMA COUNTY | 620506 | 38000  |     | 19.00 | 646.00 | NORTHERN RECYCLING-N | YARDWASTE | Composting Area | 12/01/2017 | 19.00 |
| December 2017 | NORTHBAY | YW       | SONOMA COUNTY | 620468 | 38560  |     | 19.28 | 655.52 | NORTHERN RECYCLING-N | YARDWASTE | Composting Area | 12/01/2017 | 19.28 |
| December 2017 | NORTHBAY | YW       | SONOMA COUNTY | 620396 | 39660  |     | 19.83 | 674.22 | NORTHERN RECYCLING-N | YARDWASTE | Composting Area | 12/01/2017 | 19.83 |
| December 2017 | NORTHBAY | YW       | SONOMA COUNTY | 620550 | 42780  |     | 21.39 | 727.26 | NORTHERN RECYCLING-N | YARDWASTE | Composting Area | 12/01/2017 | 21.39 |
| December 2017 | NORTHBAY | YW       | SONOMA COUNTY | 620411 | 44480  |     | 22.24 | 756.16 | NORTHERN RECYCLING-N | YARDWASTE | Composting Area | 12/01/2017 | 22.24 |
| December 2017 | NORTHBAY | YW       | SONOMA COUNTY | 620492 | 44660  |     | 22.33 | 759.22 | NORTHERN RECYCLING-N | YARDWASTE | Composting Area | 12/01/2017 | 22.33 |
| December 2017 | NORTHBAY | YW       | SONOMA COUNTY | 620415 | 45020  |     | 22.51 | 765.34 | NORTHERN RECYCLING-N | YARDWASTE | Composting Area | 12/01/2017 | 22.51 |
| December 2017 | NORTHBAY | YW       | SONOMA COUNTY | 620527 | 45520  |     | 22.76 | 773.84 | NORTHERN RECYCLING-N | YARDWASTE | Composting Area | 12/01/2017 | 22.76 |
| December 2017 | NORTHBAY | FOOD     | SONOMA COUNTY | 620683 | 7460   |     | 3.73  | 171.58 | NORTHERN RECYCLING-N | FOODWASTE | Composting Area | 12/02/2017 | 3.73  |
| December 2017 | NORTHBAY | YW       | SONOMA COUNTY | 620684 | 34140  |     | 17.07 | 580.38 | NORTHERN RECYCLING-N | YARDWASTE | Composting Area | 12/02/2017 | 17.07 |
| December 2017 | NORTHBAY | YW       | SONOMA COUNTY | 620649 | 36520  |     | 18.26 | 620.84 | NORTHERN RECYCLING-N | YARDWASTE | Composting Area | 12/02/2017 | 18.26 |
| December 2017 | NORTHBAY | YW       | SONOMA COUNTY | 620738 | 36700  |     | 18.35 | 623.90 | NORTHERN RECYCLING-N | YARDWASTE | Composting Area | 12/02/2017 | 18.35 |
| December 2017 | NORTHBAY | YW       | SONOMA COUNTY | 620716 | 37440  |     | 18.72 | 636.48 | NORTHERN RECYCLING-N | YARDWASTE | Composting Area | 12/02/2017 | 18.72 |
| December 2017 | NORTHBAY | YW       | SONOMA COUNTY | 620729 | 38000  |     | 19.00 | 646.00 | NORTHERN RECYCLING-N | YARDWASTE | Composting Area | 12/02/2017 | 19.00 |
| December 2017 | NORTHBAY | YW       | SONOMA COUNTY | 620621 | 38200  |     | 19.10 | 649.40 | NORTHERN RECYCLING-N | YARDWASTE | Composting Area | 12/02/2017 | 19.10 |
| December 2017 | NORTHBAY | YW       | SONOMA COUNTY | 620675 | 40120  |     | 20.06 | 682.04 | NORTHERN RECYCLING-N | YARDWASTE | Composting Area | 12/02/2017 | 20.06 |
| December 2017 | NORTHBAY | YW       | SONOMA COUNTY | 620617 | 40860  |     | 20.43 | 694.62 | NORTHERN RECYCLING-N | YARDWASTE | Composting Area | 12/02/2017 | 20.43 |
| December 2017 | NORTHBAY | YW       | SONOMA COUNTY | 621025 | 28080  |     | 14.04 | 477.36 | NORTHERN RECYCLING-N | YARDWASTE | Composting Area | 12/04/2017 | 14.04 |
| December 2017 | NORTHBAY | YW       | SONOMA COUNTY | 621011 | 30020  |     | 15.01 | 510.34 | NORTHERN RECYCLING-N | YARDWASTE | Composting Area | 12/04/2017 | 15.01 |
| December 2017 | NORTHBAY | YW       | SONOMA COUNTY | 621004 | 34840  |     | 17.42 | 592.28 | NORTHERN RECYCLING-N | YARDWASTE | Composting Area | 12/04/2017 | 17.42 |
| December 2017 | NORTHBAY | YW       | SONOMA COUNTY | 621023 | 34840  |     | 17.42 | 592.28 | NORTHERN RECYCLING-N | YARDWASTE | Composting Area | 12/04/2017 | 17.42 |
| December 2017 | NORTHBAY | YW       | SONOMA COUNTY | 620944 | 39300  |     | 19.65 | 668.10 | NORTHERN RECYCLING-N | YARDWASTE | Composting Area | 12/04/2017 | 19.65 |
| December 2017 | NORTHBAY | YW       | SONOMA COUNTY | 620969 | 41280  |     | 20.64 | 701.76 | NORTHERN RECYCLING-N | YARDWASTE | Composting Area | 12/04/2017 | 20.64 |
| December 2017 | NORTHBAY | YW       | SONOMA COUNTY | 621277 | 28240  |     | 14.12 | 480.08 | NORTHERN RECYCLING-N | YARDWASTE | Composting Area | 12/05/2017 | 14.12 |
| December 2017 | NORTHBAY | YW       | SONOMA COUNTY | 621260 | 30500  |     | 15.25 | 518.50 | NORTHERN RECYCLING-N | YARDWASTE | Composting Area | 12/05/2017 | 15.25 |
| December 2017 | NORTHBAY | YW       | SONOMA COUNTY | 621201 | 31420  |     | 15.71 | 534.14 | NORTHERN RECYCLING-N | YARDWASTE | Composting Area | 12/05/2017 | 15.71 |
| December 2017 | NORTHBAY | YW       | SONOMA COUNTY | 621303 | 31700  |     | 15.85 | 538.90 | NORTHERN RECYCLING-N | YARDWASTE | Composting Area | 12/05/2017 | 15.85 |
| December 2017 | NORTHBAY | YW       | SONOMA COUNTY | 621225 | 33540  |     | 16.77 | 570.18 | NORTHERN RECYCLING-N | YARDWASTE | Composting Area | 12/05/2017 | 16.77 |
| December 2017 | NORTHBAY | YW       | SONOMA COUNTY | 621295 | 36300  |     | 18.15 | 617.10 | NORTHERN RECYCLING-N | YARDWASTE | Composting Area | 12/05/2017 | 18.15 |
| December 2017 | NORTHBAY | YW       | SONOMA COUNTY | 621468 | 28900  |     | 14.45 | 491.30 | NORTHERN RECYCLING-N | YARDWASTE | Composting Area | 12/06/2017 | 14.45 |
| December 2017 | NORTHBAY | YW       | SONOMA COUNTY | 621556 | 30760  |     | 15.38 | 522.92 | NORTHERN RECYCLING-N | YARDWASTE | Composting Area | 12/06/2017 | 15.38 |
| December 2017 | NORTHBAY | YW       | SONOMA COUNTY | 621507 | 32400  |     | 16.20 | 550.80 | NORTHERN RECYCLING-N | YARDWASTE | Composting Area | 12/06/2017 | 16.20 |
| December 2017 | NORTHBAY | YW       | SONOMA COUNTY | 621442 | 33200  |     | 16.60 | 564.40 | NORTHERN RECYCLING-N | YARDWASTE | Composting Area | 12/06/2017 | 16.60 |
| December 2017 | NORTHBAY | YW       | SONOMA COUNTY | 621401 | 33560  |     | 16.78 | 570.52 | NORTHERN RECYCLING-N | YARDWASTE | Composting Area | 12/06/2017 | 16.78 |
| December 2017 | NORTHBAY | YW       | SONOMA COUNTY | 621543 | 36220  |     | 18.11 | 615.74 | NORTHERN RECYCLING-N | YARDWASTE | Composting Area | 12/06/2017 | 18.11 |
| December 2017 | NORTHBAY | YW       | SONOMA COUNTY | 621561 | 36680  |     | 18.34 | 623.56 | NORTHERN RECYCLING-N | YARDWASTE | Composting Area | 12/06/2017 | 18.34 |
| December 2017 | NORTHBAY | YW       | SONOMA COUNTY | 621388 | 37780  |     | 18.89 | 642.26 | NORTHERN RECYCLING-N | YARDWASTE | Composting Area | 12/06/2017 | 18.89 |
| December 2017 | NORTHBAY | YW       | SONOMA COUNTY | 621479 | 38020  |     | 19.01 | 646.34 | NORTHERN RECYCLING-N | YARDWASTE | Composting Area | 12/06/2017 | 19.01 |
| December 2017 | NORTHBAY | YW       | SONOMA COUNTY | 621545 | 39320  |     | 19.66 | 668.44 | NORTHERN RECYCLING-N | YARDWASTE | Composting Area | 12/06/2017 | 19.66 |
| December 2017 | NORTHBAY | YW       | SONOMA COUNTY | 621420 | 39420  |     | 19.71 | 670.14 | NORTHERN RECYCLING-N | YARDWASTE | Composting Area | 12/06/2017 | 19.71 |

|               |          |    |               |        |       |       |        |                      |           |                 |            |       |
|---------------|----------|----|---------------|--------|-------|-------|--------|----------------------|-----------|-----------------|------------|-------|
| December 2017 | NORTHBAY | YW | SONOMA COUNTY | 621432 | 45440 | 22.72 | 772.48 | NORTHERN RECYCLING-N | YARDWASTE | Composting Area | 12/06/2017 | 22.72 |
| December 2017 | NORTHBAY | YW | SONOMA COUNTY | 621688 | 26820 | 13.41 | 455.94 | NORTHERN RECYCLING-N | YARDWASTE | Composting Area | 12/07/2017 | 13.41 |
| December 2017 | NORTHBAY | YW | SONOMA COUNTY | 621804 | 31820 | 15.91 | 540.94 | NORTHERN RECYCLING-N | YARDWASTE | Composting Area | 12/07/2017 | 15.91 |
| December 2017 | NORTHBAY | YW | SONOMA COUNTY | 621812 | 33700 | 16.85 | 572.90 | NORTHERN RECYCLING-N | YARDWASTE | Composting Area | 12/07/2017 | 16.85 |
| December 2017 | NORTHBAY | YW | SONOMA COUNTY | 621678 | 34040 | 17.02 | 578.68 | NORTHERN RECYCLING-N | YARDWASTE | Composting Area | 12/07/2017 | 17.02 |
| December 2017 | NORTHBAY | YW | SONOMA COUNTY | 621664 | 34480 | 17.24 | 586.16 | NORTHERN RECYCLING-N | YARDWASTE | Composting Area | 12/07/2017 | 17.24 |
| December 2017 | NORTHBAY | YW | SONOMA COUNTY | 621817 | 34500 | 17.25 | 586.50 | NORTHERN RECYCLING-N | YARDWASTE | Composting Area | 12/07/2017 | 17.25 |
| December 2017 | NORTHBAY | YW | SONOMA COUNTY | 621670 | 34880 | 17.44 | 592.96 | NORTHERN RECYCLING-N | YARDWASTE | Composting Area | 12/07/2017 | 17.44 |
| December 2017 | NORTHBAY | YW | SONOMA COUNTY | 621810 | 37540 | 18.77 | 638.18 | NORTHERN RECYCLING-N | YARDWASTE | Composting Area | 12/07/2017 | 18.77 |
| December 2017 | NORTHBAY | YW | SONOMA COUNTY | 621743 | 37920 | 18.96 | 644.64 | NORTHERN RECYCLING-N | YARDWASTE | Composting Area | 12/07/2017 | 18.96 |
| December 2017 | NORTHBAY | YW | SONOMA COUNTY | 621721 | 38020 | 19.01 | 646.34 | NORTHERN RECYCLING-N | YARDWASTE | Composting Area | 12/07/2017 | 19.01 |
| December 2017 | NORTHBAY | YW | SONOMA COUNTY | 621746 | 40560 | 20.28 | 689.52 | NORTHERN RECYCLING-N | YARDWASTE | Composting Area | 12/07/2017 | 20.28 |
| December 2017 | NORTHBAY | YW | SONOMA COUNTY | 621697 | 42260 | 21.13 | 718.42 | NORTHERN RECYCLING-N | YARDWASTE | Composting Area | 12/07/2017 | 21.13 |
| December 2017 | NORTHBAY | YW | SONOMA COUNTY | 622052 | 31800 | 15.90 | 540.60 | NORTHERN RECYCLING-N | YARDWASTE | Composting Area | 12/08/2017 | 15.90 |
| December 2017 | NORTHBAY | YW | SONOMA COUNTY | 622102 | 35860 | 17.93 | 609.62 | NORTHERN RECYCLING-N | YARDWASTE | Composting Area | 12/08/2017 | 17.93 |
| December 2017 | NORTHBAY | YW | SONOMA COUNTY | 622278 | 21660 | 10.83 | 368.22 | NORTHERN RECYCLING-N | YARDWASTE | Composting Area | 12/09/2017 | 10.83 |
| December 2017 | NORTHBAY | YW | SONOMA COUNTY | 622247 | 31000 | 15.50 | 527.00 | NORTHERN RECYCLING-N | YARDWASTE | Composting Area | 12/09/2017 | 15.50 |
| December 2017 | NORTHBAY | YW | SONOMA COUNTY | 622520 | 29120 | 14.56 | 495.04 | NORTHERN RECYCLING-N | YARDWASTE | Composting Area | 12/11/2017 | 14.56 |
| December 2017 | NORTHBAY | YW | SONOMA COUNTY | 622427 | 29220 | 14.61 | 496.74 | NORTHERN RECYCLING-N | YARDWASTE | Composting Area | 12/11/2017 | 14.61 |
| December 2017 | NORTHBAY | YW | SONOMA COUNTY | 622441 | 29260 | 14.63 | 497.42 | NORTHERN RECYCLING-N | YARDWASTE | Composting Area | 12/11/2017 | 14.63 |
| December 2017 | NORTHBAY | YW | SONOMA COUNTY | 622533 | 29480 | 14.74 | 501.16 | NORTHERN RECYCLING-N | YARDWASTE | Composting Area | 12/11/2017 | 14.74 |
| December 2017 | NORTHBAY | YW | SONOMA COUNTY | 622401 | 30200 | 15.10 | 513.40 | NORTHERN RECYCLING-N | YARDWASTE | Composting Area | 12/11/2017 | 15.10 |
| December 2017 | NORTHBAY | YW | SONOMA COUNTY | 622555 | 31200 | 15.60 | 530.40 | NORTHERN RECYCLING-N | YARDWASTE | Composting Area | 12/11/2017 | 15.60 |
| December 2017 | NORTHBAY | YW | SONOMA COUNTY | 622465 | 32960 | 16.48 | 560.32 | NORTHERN RECYCLING-N | YARDWASTE | Composting Area | 12/11/2017 | 16.48 |
| December 2017 | NORTHBAY | YW | SONOMA COUNTY | 622501 | 36240 | 18.12 | 616.08 | NORTHERN RECYCLING-N | YARDWASTE | Composting Area | 12/11/2017 | 18.12 |
| December 2017 | NORTHBAY | YW | SONOMA COUNTY | 622449 | 36500 | 18.25 | 620.50 | NORTHERN RECYCLING-N | YARDWASTE | Composting Area | 12/11/2017 | 18.25 |
| December 2017 | NORTHBAY | YW | SONOMA COUNTY | 622467 | 37940 | 18.97 | 644.98 | NORTHERN RECYCLING-N | YARDWASTE | Composting Area | 12/11/2017 | 18.97 |
| December 2017 | NORTHBAY | YW | SONOMA COUNTY | 622404 | 44340 | 22.17 | 753.78 | NORTHERN RECYCLING-N | YARDWASTE | Composting Area | 12/11/2017 | 22.17 |
| December 2017 | NORTHBAY | YW | SONOMA COUNTY | 622627 | 22560 | 11.28 | 383.52 | NORTHERN RECYCLING-N | YARDWASTE | Composting Area | 12/12/2017 | 11.28 |
| December 2017 | NORTHBAY | YW | SONOMA COUNTY | 622660 | 29180 | 14.59 | 496.06 | NORTHERN RECYCLING-N | YARDWASTE | Composting Area | 12/12/2017 | 14.59 |
| December 2017 | NORTHBAY | YW | SONOMA COUNTY | 622726 | 32920 | 16.46 | 559.64 | NORTHERN RECYCLING-N | YARDWASTE | Composting Area | 12/12/2017 | 16.46 |
| December 2017 | NORTHBAY | YW | SONOMA COUNTY | 622696 | 38520 | 19.26 | 654.84 | NORTHERN RECYCLING-N | YARDWASTE | Composting Area | 12/12/2017 | 19.26 |
| December 2017 | NORTHBAY | YW | SONOMA COUNTY | 623025 | 24140 | 12.07 | 410.38 | NORTHERN RECYCLING-N | YARDWASTE | Composting Area | 12/13/2017 | 12.07 |
| December 2017 | NORTHBAY | YW | SONOMA COUNTY | 622886 | 24240 | 12.12 | 412.08 | NORTHERN RECYCLING-N | YARDWASTE | Composting Area | 12/13/2017 | 12.12 |
| December 2017 | NORTHBAY | YW | SONOMA COUNTY | 622846 | 30440 | 15.22 | 517.48 | NORTHERN RECYCLING-N | YARDWASTE | Composting Area | 12/13/2017 | 15.22 |
| December 2017 | NORTHBAY | YW | SONOMA COUNTY | 622933 | 30620 | 15.31 | 520.54 | NORTHERN RECYCLING-N | YARDWASTE | Composting Area | 12/13/2017 | 15.31 |
| December 2017 | NORTHBAY | YW | SONOMA COUNTY | 622997 | 32260 | 16.13 | 548.42 | NORTHERN RECYCLING-N | YARDWASTE | Composting Area | 12/13/2017 | 16.13 |
| December 2017 | NORTHBAY | YW | SONOMA COUNTY | 622914 | 32600 | 16.30 | 554.20 | NORTHERN RECYCLING-N | YARDWASTE | Composting Area | 12/13/2017 | 16.30 |
| December 2017 | NORTHBAY | YW | SONOMA COUNTY | 622973 | 34280 | 17.14 | 582.76 | NORTHERN RECYCLING-N | YARDWASTE | Composting Area | 12/13/2017 | 17.14 |
| December 2017 | NORTHBAY | YW | SONOMA COUNTY | 622959 | 34500 | 17.25 | 586.50 | NORTHERN RECYCLING-N | YARDWASTE | Composting Area | 12/13/2017 | 17.25 |
| December 2017 | NORTHBAY | YW | SONOMA COUNTY | 622875 | 41880 | 20.94 | 711.96 | NORTHERN RECYCLING-N | YARDWASTE | Composting Area | 12/13/2017 | 20.94 |
| December 2017 | NORTHBAY | YW | SONOMA COUNTY | 623223 | 26120 | 13.06 | 444.04 | NORTHERN RECYCLING-N | YARDWASTE | Composting Area | 12/14/2017 | 13.06 |
| December 2017 | NORTHBAY | YW | SONOMA COUNTY | 623097 | 28960 | 14.48 | 492.32 | NORTHERN RECYCLING-N | YARDWASTE | Composting Area | 12/14/2017 | 14.48 |
| December 2017 | NORTHBAY | YW | SONOMA COUNTY | 623134 | 33580 | 16.79 | 570.86 | NORTHERN RECYCLING-N | YARDWASTE | Composting Area | 12/14/2017 | 16.79 |
| December 2017 | NORTHBAY | YW | SONOMA COUNTY | 623174 | 35380 | 17.69 | 601.46 | NORTHERN RECYCLING-N | YARDWASTE | Composting Area | 12/14/2017 | 17.69 |

|               |          |      |               |        |       |       |        |                      |           |                 |            |       |
|---------------|----------|------|---------------|--------|-------|-------|--------|----------------------|-----------|-----------------|------------|-------|
| December 2017 | NORTHBAY | YW   | SONOMA COUNTY | 623211 | 35680 | 17.84 | 606.56 | NORTHERN RECYCLING-N | YARDWASTE | Composting Area | 12/14/2017 | 17.84 |
| December 2017 | NORTHBAY | YW   | SONOMA COUNTY | 623403 | 29580 | 14.79 | 502.86 | NORTHERN RECYCLING-N | YARDWASTE | Composting Area | 12/15/2017 | 14.79 |
| December 2017 | NORTHBAY | YW   | SONOMA COUNTY | 623390 | 29840 | 14.92 | 507.28 | NORTHERN RECYCLING-N | YARDWASTE | Composting Area | 12/15/2017 | 14.92 |
| December 2017 | NORTHBAY | YW   | SONOMA COUNTY | 623350 | 30300 | 15.15 | 515.10 | NORTHERN RECYCLING-N | YARDWASTE | Composting Area | 12/15/2017 | 15.15 |
| December 2017 | NORTHBAY | YW   | SONOMA COUNTY | 623342 | 31240 | 15.62 | 531.08 | NORTHERN RECYCLING-N | YARDWASTE | Composting Area | 12/15/2017 | 15.62 |
| December 2017 | NORTHBAY | YW   | SONOMA COUNTY | 623443 | 32120 | 16.06 | 546.04 | NORTHERN RECYCLING-N | YARDWASTE | Composting Area | 12/15/2017 | 16.06 |
| December 2017 | NORTHBAY | FOOD | SONOMA COUNTY | 623542 | 15620 | 7.81  | 359.26 | NORTHERN RECYCLING-N | FOODWASTE | Composting Area | 12/16/2017 | 7.81  |
| December 2017 | NORTHBAY | YW   | SONOMA COUNTY | 623568 | 24600 | 12.30 | 418.20 | NORTHERN RECYCLING-N | YARDWASTE | Composting Area | 12/16/2017 | 12.30 |
| December 2017 | NORTHBAY | YW   | SONOMA COUNTY | 623619 | 26560 | 13.28 | 451.52 | NORTHERN RECYCLING-N | YARDWASTE | Composting Area | 12/16/2017 | 13.28 |
| December 2017 | NORTHBAY | YW   | SONOMA COUNTY | 623546 | 29260 | 14.63 | 497.42 | NORTHERN RECYCLING-N | YARDWASTE | Composting Area | 12/16/2017 | 14.63 |
| December 2017 | NORTHBAY | YW   | SONOMA COUNTY | 623594 | 34280 | 17.14 | 582.76 | NORTHERN RECYCLING-N | YARDWASTE | Composting Area | 12/16/2017 | 17.14 |
| December 2017 | NORTHBAY | YW   | SONOMA COUNTY | 623534 | 38000 | 19.00 | 646.00 | NORTHERN RECYCLING-N | YARDWASTE | Composting Area | 12/16/2017 | 19.00 |
| December 2017 | NORTHBAY | YW   | SONOMA COUNTY | 623522 | 38080 | 19.04 | 647.36 | NORTHERN RECYCLING-N | YARDWASTE | Composting Area | 12/16/2017 | 19.04 |
| December 2017 | NORTHBAY | YW   | SONOMA COUNTY | 623749 | 22480 | 11.24 | 382.16 | NORTHERN RECYCLING-N | YARDWASTE | Composting Area | 12/18/2017 | 11.24 |
| December 2017 | NORTHBAY | YW   | SONOMA COUNTY | 623759 | 28760 | 14.38 | 488.92 | NORTHERN RECYCLING-N | YARDWASTE | Composting Area | 12/18/2017 | 14.38 |
| December 2017 | NORTHBAY | YW   | SONOMA COUNTY | 623838 | 30880 | 15.44 | 524.96 | NORTHERN RECYCLING-N | YARDWASTE | Composting Area | 12/18/2017 | 15.44 |
| December 2017 | NORTHBAY | YW   | SONOMA COUNTY | 623883 | 31360 | 15.68 | 533.12 | NORTHERN RECYCLING-N | YARDWASTE | Composting Area | 12/18/2017 | 15.68 |
| December 2017 | NORTHBAY | YW   | SONOMA COUNTY | 623781 | 31700 | 15.85 | 538.90 | NORTHERN RECYCLING-N | YARDWASTE | Composting Area | 12/18/2017 | 15.85 |
| December 2017 | NORTHBAY | YW   | SONOMA COUNTY | 623796 | 32880 | 16.44 | 558.96 | NORTHERN RECYCLING-N | YARDWASTE | Composting Area | 12/18/2017 | 16.44 |
| December 2017 | NORTHBAY | YW   | SONOMA COUNTY | 623729 | 37420 | 18.71 | 636.14 | NORTHERN RECYCLING-N | YARDWASTE | Composting Area | 12/18/2017 | 18.71 |
| December 2017 | NORTHBAY | YW   | SONOMA COUNTY | 623969 | 23480 | 11.74 | 399.16 | NORTHERN RECYCLING-N | YARDWASTE | Composting Area | 12/19/2017 | 11.74 |
| December 2017 | NORTHBAY | YW   | SONOMA COUNTY | 623974 | 26900 | 13.45 | 457.30 | NORTHERN RECYCLING-N | YARDWASTE | Composting Area | 12/19/2017 | 13.45 |
| December 2017 | NORTHBAY | YW   | SONOMA COUNTY | 624005 | 28440 | 14.22 | 483.48 | NORTHERN RECYCLING-N | YARDWASTE | Composting Area | 12/19/2017 | 14.22 |
| December 2017 | NORTHBAY | YW   | SONOMA COUNTY | 624068 | 29800 | 14.90 | 506.60 | NORTHERN RECYCLING-N | YARDWASTE | Composting Area | 12/19/2017 | 14.90 |
| December 2017 | NORTHBAY | YW   | SONOMA COUNTY | 624016 | 34800 | 17.40 | 591.60 | NORTHERN RECYCLING-N | YARDWASTE | Composting Area | 12/19/2017 | 17.40 |
| December 2017 | NORTHBAY | YW   | SONOMA COUNTY | 624048 | 35220 | 17.61 | 598.74 | NORTHERN RECYCLING-N | YARDWASTE | Composting Area | 12/19/2017 | 17.61 |
| December 2017 | NORTHBAY | YW   | SONOMA COUNTY | 624221 | 28060 | 14.03 | 477.02 | NORTHERN RECYCLING-N | YARDWASTE | Composting Area | 12/20/2017 | 14.03 |
| December 2017 | NORTHBAY | YW   | SONOMA COUNTY | 624158 | 30600 | 15.30 | 520.20 | NORTHERN RECYCLING-N | YARDWASTE | Composting Area | 12/20/2017 | 15.30 |
| December 2017 | NORTHBAY | YW   | SONOMA COUNTY | 624264 | 33420 | 16.71 | 568.14 | NORTHERN RECYCLING-N | YARDWASTE | Composting Area | 12/20/2017 | 16.71 |
| December 2017 | NORTHBAY | YW   | SONOMA COUNTY | 624414 | 26220 | 13.11 | 445.74 | NORTHERN RECYCLING-N | YARDWASTE | Composting Area | 12/21/2017 | 13.11 |
| December 2017 | NORTHBAY | YW   | SONOMA COUNTY | 624445 | 26980 | 13.49 | 458.66 | NORTHERN RECYCLING-N | YARDWASTE | Composting Area | 12/21/2017 | 13.49 |
| December 2017 | NORTHBAY | YW   | SONOMA COUNTY | 624389 | 27900 | 13.95 | 474.30 | NORTHERN RECYCLING-N | YARDWASTE | Composting Area | 12/21/2017 | 13.95 |
| December 2017 | NORTHBAY | YW   | SONOMA COUNTY | 624508 | 32080 | 16.04 | 545.36 | NORTHERN RECYCLING-N | YARDWASTE | Composting Area | 12/21/2017 | 16.04 |
| December 2017 | NORTHBAY | YW   | SONOMA COUNTY | 624391 | 32340 | 16.17 | 549.78 | NORTHERN RECYCLING-N | YARDWASTE | Composting Area | 12/21/2017 | 16.17 |
| December 2017 | NORTHBAY | YW   | SONOMA COUNTY | 624638 | 26720 | 13.36 | 454.24 | NORTHERN RECYCLING-N | YARDWASTE | Composting Area | 12/22/2017 | 13.36 |
| December 2017 | NORTHBAY | YW   | SONOMA COUNTY | 624742 | 27220 | 13.61 | 462.74 | NORTHERN RECYCLING-N | YARDWASTE | Composting Area | 12/22/2017 | 13.61 |
| December 2017 | NORTHBAY | YW   | SONOMA COUNTY | 624647 | 29160 | 14.58 | 495.72 | NORTHERN RECYCLING-N | YARDWASTE | Composting Area | 12/22/2017 | 14.58 |
| December 2017 | NORTHBAY | YW   | SONOMA COUNTY | 624741 | 34220 | 17.11 | 581.74 | NORTHERN RECYCLING-N | YARDWASTE | Composting Area | 12/22/2017 | 17.11 |
| December 2017 | NORTHBAY | YW   | SONOMA COUNTY | 624684 | 34400 | 17.20 | 584.80 | NORTHERN RECYCLING-N | YARDWASTE | Composting Area | 12/22/2017 | 17.20 |
| December 2017 | NORTHBAY | YW   | SONOMA COUNTY | 624702 | 37200 | 18.60 | 632.40 | NORTHERN RECYCLING-N | YARDWASTE | Composting Area | 12/22/2017 | 18.60 |
| December 2017 | NORTHBAY | YW   | SONOMA COUNTY | 624845 | 23160 | 11.58 | 393.72 | NORTHERN RECYCLING-N | YARDWASTE | Composting Area | 12/23/2017 | 11.58 |
| December 2017 | NORTHBAY | YW   | SONOMA COUNTY | 624824 | 29600 | 14.80 | 503.20 | NORTHERN RECYCLING-N | YARDWASTE | Composting Area | 12/23/2017 | 14.80 |
| December 2017 | NORTHBAY | YW   | SONOMA COUNTY | 625021 | 21900 | 10.95 | 372.30 | NORTHERN RECYCLING-N | YARDWASTE | Composting Area | 12/26/2017 | 10.95 |
| December 2017 | NORTHBAY | YW   | SONOMA COUNTY | 624973 | 27520 | 13.76 | 467.84 | NORTHERN RECYCLING-N | YARDWASTE | Composting Area | 12/26/2017 | 13.76 |
| December 2017 | NORTHBAY | YW   | SONOMA COUNTY | 625011 | 28300 | 14.15 | 481.10 | NORTHERN RECYCLING-N | YARDWASTE | Composting Area | 12/26/2017 | 14.15 |

|               |          |    |               |        |       |       |        |                      |           |                 |            |       |
|---------------|----------|----|---------------|--------|-------|-------|--------|----------------------|-----------|-----------------|------------|-------|
| December 2017 | NORTHBAY | YW | SONOMA COUNTY | 625138 | 20520 | 10.26 | 348.84 | NORTHERN RECYCLING-N | YARDWASTE | Composting Area | 12/27/2017 | 10.26 |
| December 2017 | NORTHBAY | YW | SONOMA COUNTY | 625186 | 21920 | 10.96 | 372.64 | NORTHERN RECYCLING-N | YARDWASTE | Composting Area | 12/27/2017 | 10.96 |
| December 2017 | NORTHBAY | YW | SONOMA COUNTY | 625233 | 25920 | 12.96 | 440.64 | NORTHERN RECYCLING-N | YARDWASTE | Composting Area | 12/27/2017 | 12.96 |
| December 2017 | NORTHBAY | YW | SONOMA COUNTY | 625146 | 29400 | 14.70 | 499.80 | NORTHERN RECYCLING-N | YARDWASTE | Composting Area | 12/27/2017 | 14.70 |
| December 2017 | NORTHBAY | YW | SONOMA COUNTY | 625244 | 31200 | 15.60 | 530.40 | NORTHERN RECYCLING-N | YARDWASTE | Composting Area | 12/27/2017 | 15.60 |
| December 2017 | NORTHBAY | YW | SONOMA COUNTY | 625181 | 33520 | 16.76 | 569.84 | NORTHERN RECYCLING-N | YARDWASTE | Composting Area | 12/27/2017 | 16.76 |
| December 2017 | NORTHBAY | YW | SONOMA COUNTY | 625331 | 27160 | 13.58 | 461.72 | NORTHERN RECYCLING-N | YARDWASTE | Composting Area | 12/28/2017 | 13.58 |
| December 2017 | NORTHBAY | YW | SONOMA COUNTY | 625394 | 28540 | 14.27 | 485.18 | NORTHERN RECYCLING-N | YARDWASTE | Composting Area | 12/28/2017 | 14.27 |
| December 2017 | NORTHBAY | YW | SONOMA COUNTY | 625382 | 32520 | 16.26 | 552.84 | NORTHERN RECYCLING-N | YARDWASTE | Composting Area | 12/28/2017 | 16.26 |
| December 2017 | NORTHBAY | YW | SONOMA COUNTY | 625611 | 28420 | 14.21 | 483.14 | NORTHERN RECYCLING-N | YARDWASTE | Composting Area | 12/29/2017 | 14.21 |
| December 2017 | NORTHBAY | YW | SONOMA COUNTY | 625514 | 29240 | 14.62 | 497.08 | NORTHERN RECYCLING-N | YARDWASTE | Composting Area | 12/29/2017 | 14.62 |
| December 2017 | NORTHBAY | YW | SONOMA COUNTY | 625493 | 29540 | 14.77 | 502.18 | NORTHERN RECYCLING-N | YARDWASTE | Composting Area | 12/29/2017 | 14.77 |
| December 2017 | NORTHBAY | YW | SONOMA COUNTY | 625530 | 32280 | 16.14 | 548.76 | NORTHERN RECYCLING-N | YARDWASTE | Composting Area | 12/29/2017 | 16.14 |
| December 2017 | NORTHBAY | YW | SONOMA COUNTY | 625599 | 32660 | 16.33 | 555.22 | NORTHERN RECYCLING-N | YARDWASTE | Composting Area | 12/29/2017 | 16.33 |
| December 2017 | NORTHBAY | YW | SONOMA COUNTY | 625743 | 28480 | 14.24 | 484.16 | NORTHERN RECYCLING-N | YARDWASTE | Composting Area | 12/30/2017 | 14.24 |
| December 2017 | NORTHBAY | YW | SONOMA COUNTY | 625791 | 34300 | 17.15 | 583.10 | NORTHERN RECYCLING-N | YARDWASTE | Composting Area | 12/30/2017 | 17.15 |

**December 2017 Sonoma County tonnage totals**

| Row Labels         | Sum of TONS    |
|--------------------|----------------|
| 12/01/2017         | 201.15         |
| 12/02/2017         | 154.72         |
| 12/04/2017         | 104.18         |
| 12/05/2017         | 95.85          |
| 12/06/2017         | 215.85         |
| 12/07/2017         | 213.27         |
| 12/08/2017         | 33.83          |
| 12/09/2017         | 26.33          |
| 12/11/2017         | 183.23         |
| 12/12/2017         | 61.59          |
| 12/13/2017         | 142.48         |
| 12/14/2017         | 79.86          |
| 12/15/2017         | 76.54          |
| 12/16/2017         | 103.2          |
| 12/18/2017         | 107.74         |
| 12/19/2017         | 89.32          |
| 12/20/2017         | 46.04          |
| 12/21/2017         | 72.76          |
| 12/22/2017         | 94.46          |
| 12/23/2017         | 26.38          |
| 12/26/2017         | 38.86          |
| 12/27/2017         | 81.24          |
| 12/28/2017         | 44.11          |
| 12/29/2017         | 76.07          |
| 12/30/2017         | 31.39          |
| <b>Grand Total</b> | <b>2400.45</b> |



**Attachment 9: Sustainability Report, Environmentally Preferable Purchasing Program**



**Napa Recycling**  
and Waste Services

# Sustainability Report

April 2013



(Excerpt)

## **5.7 Waste Diversion Beyond California Mandate**

The State of California recently passed a new mandatory commercial recycling program known as AB 341. This bill will build on the success of California's landmark 1989 recycling legislation (AB 939), which requires all the business in California to increase their diversion rate to 75% by 2020. The purpose of the AB 341 is to reduce GHG emissions by diverting commercial solid waste to recycling efforts and to expand the opportunity for additional recycling services and recycling manufacturing facilities in California (Theroux, 2013).

Our data shows that businesses can often reach over 80% diversion rates after working with us. We help all type of businesses identify the materials they are generating, develop strategies, provide service to reduce waste, and increase waste diversion. We also work with Napa County's Green Business Program and conduct recycling audits for businesses to help them meet the California diversion rate requirement.

## **5.8 Our Community**

Napa's Sustainability Plan was adopted in July 2012 to address AB 32 and related bills, SB 375 (land use), and SB 97 (CEQA), and focused on enhancing sustainability in city government operations, providing leadership, and creating a policy and regulatory environment that enables citizens and businesses to make cost-effective sustainable choices. This includes the cities adoption of ordinances and implementation of programs in energy, transportation, water, recycling, waste, planning, and landscape. NRWS' recycling and waste programs are crucial to the community's success in implementing a sustainability plan.

While we are offering and developing more programs to the community, we also offer education to residents on waste management and sustainability. Every resident in the City and southern unincorporated Napa County can learn what happens to the recyclables and yard waste after they put them in the curbside carts from our website. We have also utilized Facebook and YouTube to further provide education on waste management; YouTube videos are both in English and Spanish. Reaching out to every resident and business and providing sufficient education is a goal. We put up all the easy-to-use guidance on our website and update the new policies and laws which are relevant to our community.

NRWS has provided tours in the facility for numerous organizations, businesses, and schools. During the tour, we show recycling and composting materials and the processes involved. We also give presentations about the economic and environmental benefits of recycling and composting. We believe education on waste and recycling is very important, especially to our future generations. The Youth Education Program, which has led recycling center tours for thousands of students, developed “Recycling Trunk” with the Napa Valley Museum and designed zero waste programs at local schools. In 2012, we provided 43 MDF tours and 20 recycling outreach presentations; working with teachers, students, and staff at each Napa Valley Unified School District and various private schools. With the number of requests of international visitors, we will also be working with Global Alliance for Incinerator Alternatives (GAIA) to give tours to international visitors in 2013. We will be presenting at and attending various conferences and workshops, including California Resource Recovery Association, Northern California Recycling Association, and California Refuse Recycling Council.

We strive to be very active in advocacy. We have worked for several years with a number of groups to find ways to reduce the usage of plastic bags. We partnered with the local volunteer organization, Napa Valley CanDo, on a Better Bag Month, where they handed out reusable bags and gathered data on reusable bag usage. When it became apparent that the best way to reduce bag usage is through a local ban, we joined with the above groups on a task force to put together information to present to local elected officials. Just a few weeks ago, CanDo presented their findings to the City Council and the Council voted unanimously to pursue a local plastic bag ban. We will continue making every effort to make Napa County a pioneer in sustainability.

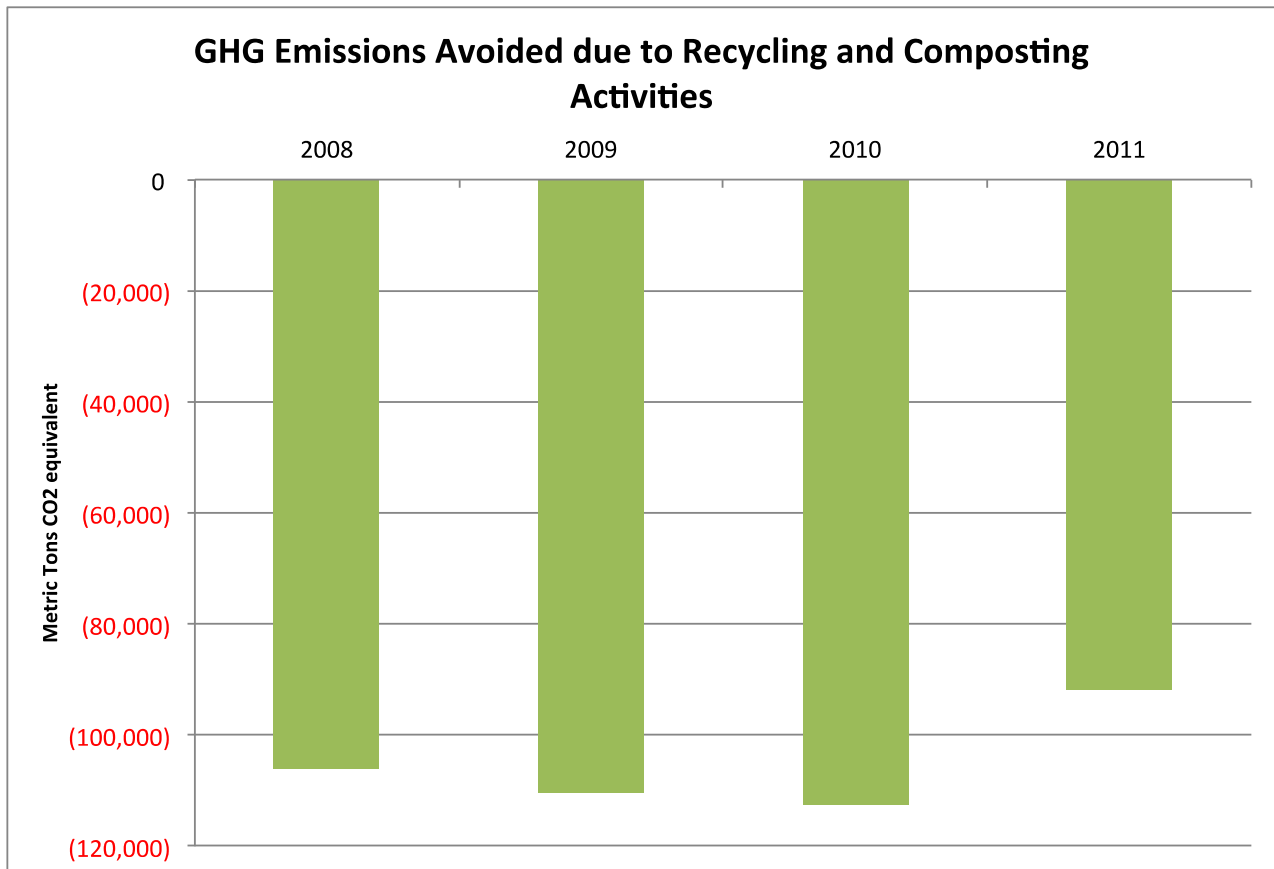
## **VI. Our Environment**

### **6.1 Sustainability and Environmental Responsibility**

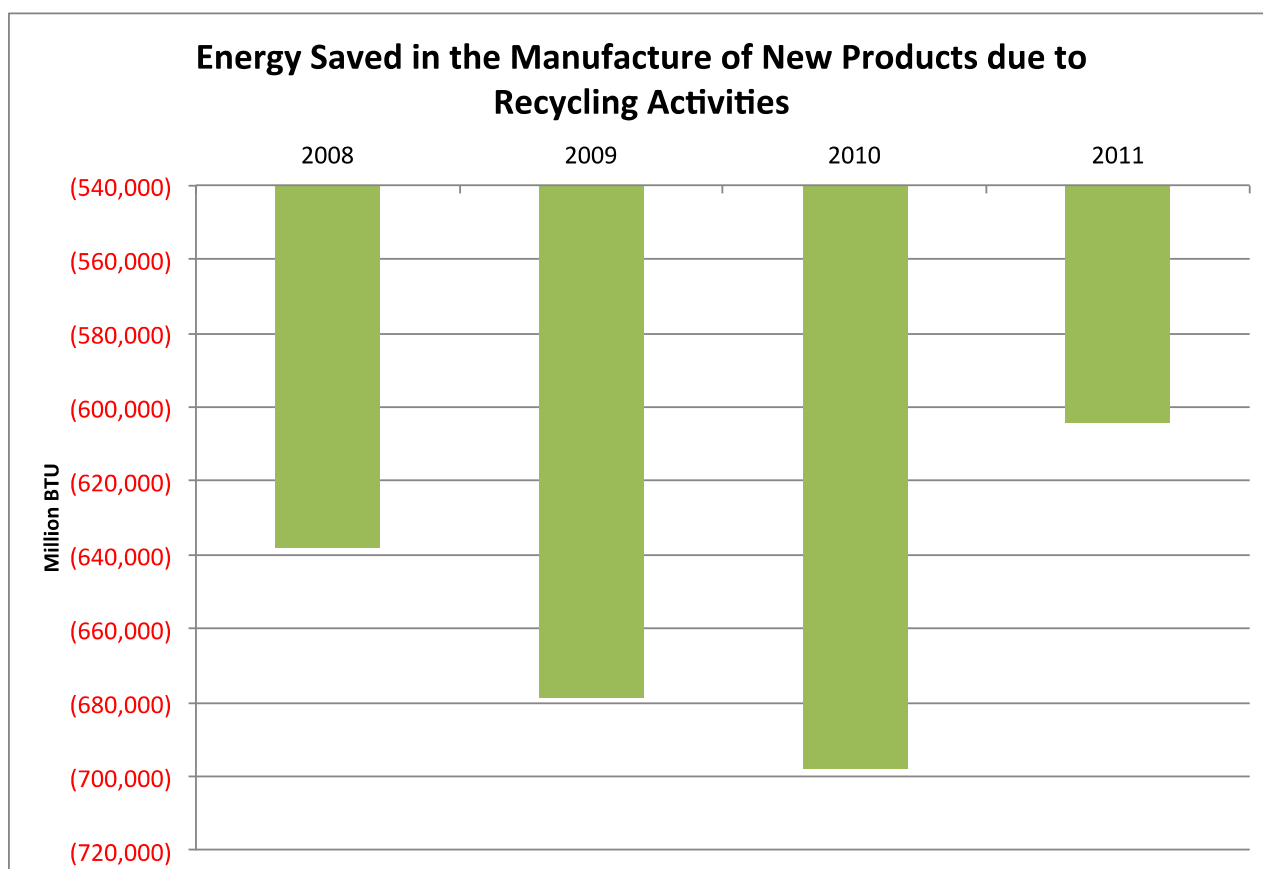
Recycling and composting reduce GHG emissions and improve air quality by reducing the amount of waste sent to landfills. In 2012, NRWS has contributed positively to the air quality in Napa by recycling and composting over 48,000 tons of material.

Using the Environmental Protection Agency’s (EPA) Waste Reduction Model (WARM) – we have been able to monitor the amount of GHG emissions that were eliminated and how much energy was saved through avoiding the manufacturing of new products as a result of our composting and recycling activities. See figure 6 and 7 for details. In four years, over 420,000 MTCO<sub>2</sub>e and over 2,600,000 million BTU were eliminated as a result. This is equivalent to removing 78,238 passenger vehicles from the roadway and conserving 24,155 households’ energy consumption.

**Figure 6. GHG Emissions Avoided from 2008 to 2011**



**Figure 7. Energy Avoided due to Recycling and Composting Activities, from 2008 to 2011**

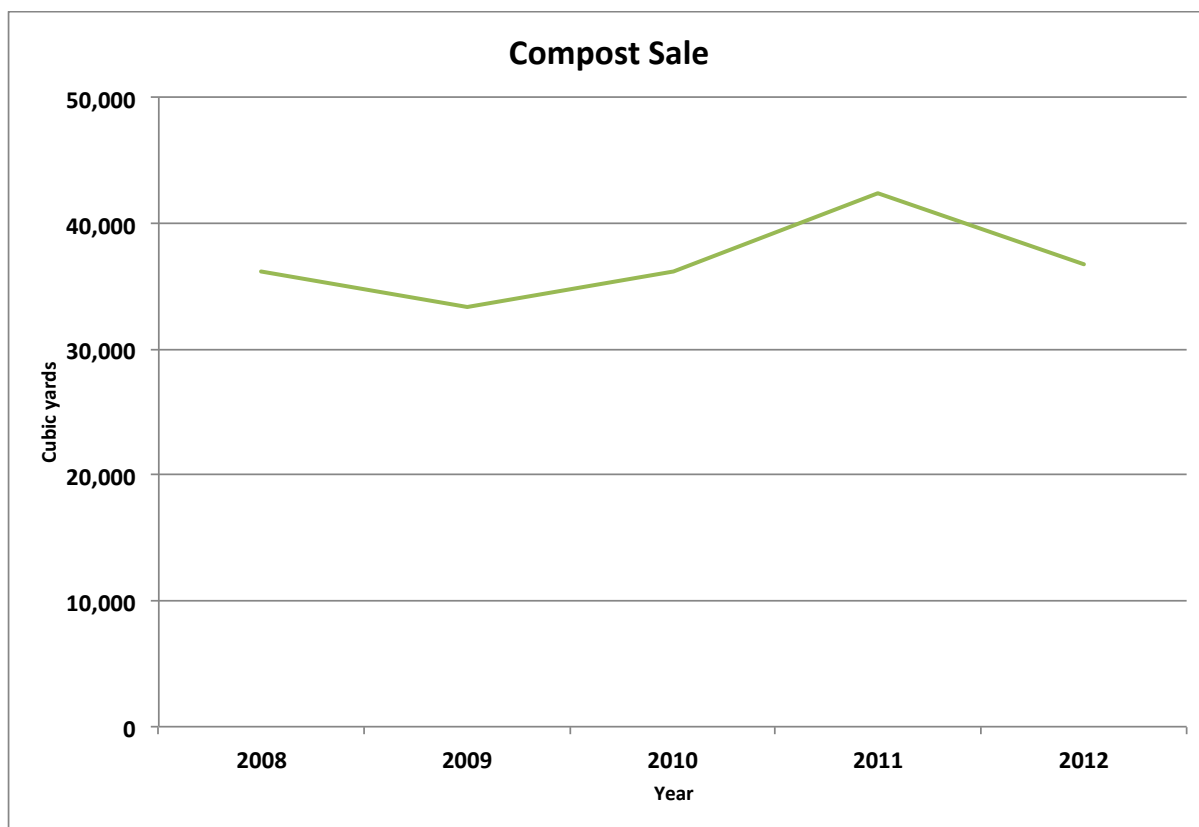


\*A new methodology of WARM was released in August 2010, emissions factor for C&D were added and region-specific electricity grid factors were also added (U.S. EPA WARM, 2012, p. 2).

The composting activity alone contributes to a large portion of the GHG emissions reduction and avoidance, methane produced in the landfills caused by the decay of organic waste is three times more potent than CO<sub>2</sub> and is the second most prevalent greenhouse gas emitted in the United States from human activities (U.S. EPA, 2013).

Our composting collection has been steadily increasing over time and we expect to increase the amount of organic materials collected with the introduction of the food waste composting collection for commercial customers. In 2012, food waste was collected at sixty-three commercial sites and in 2013, 2,500 residences in the City of Napa will participate in a food waste collection pilot program. If approved by the City of Napa and the state of California, our facility will add an anaerobic digestion system and a biomass plant to increase our capacity to process organic waste and produce organic compost to our wineries, agricultural sites, homes, and community gardens.

**Figure 8. Sales of Compost to Local Wineries and Landscapers from 2008 to 2012**



The application of compost into the soil helps to enhance soil fertility, prevents erosion, increases water retention rates, and avoids the application of petroleum-based fertilizers. As seen in figure 8, over the years NRWS has sold thousand of cubic yards of compost to local businesses and the general public. In 2012, NRWS helped to restore Napa's land by selling over 36,000 cubic yards of organic compost to wineries, landscapers, and the general public. We have also donated hundreds of yards of compost to school and community gardens every year and thousands of yards have been donated since the program began 2005. In the years to follow, we will keep our commitment to improve and preserve Napa's lands by continuously selling and donating high quality organic compost to our constituencies. By 2015, we plan to upgrade the composting facility to a covered composting system to prevent leachate, odors, and vectors.

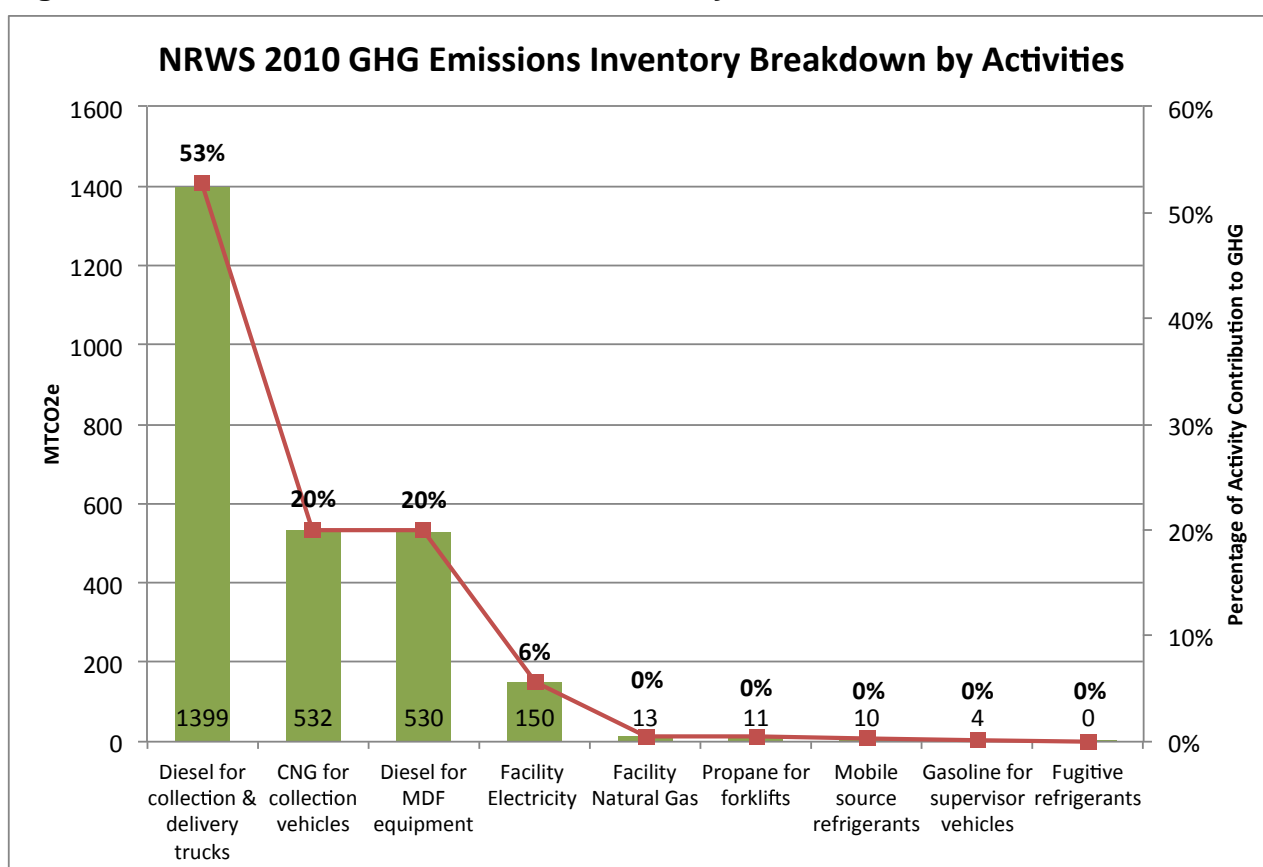
We have been working on increasing our capacity to expand the recycling services in the City and County of Napa. In 2011, a new carpet-recycling program was started and over 200 tons of carpet and carpet padding was collected and recycled. In 2013, we are conducting a study to test the feasibility of expanding our curbside residential recycling collection and be one of the first cities in the nation to offer a regular and

convenient pickup of carpets, furniture, mattresses, fluorescent bulbs, batteries, clothing/shoes, and reusable housewares.

## 6.2 Our Impacts and Our Investments in Cleaner Technologies

To better understand our direct impact on the environment, in 2010 we voluntarily calculated our GHG emissions and are now working toward alternatives to reduce our impact. The GHG emissions inventory of our facility revealed that our carbon footprint is 2,648 MT CO<sub>2</sub>e. See figure 9 for details.

**Figure 9. NRWS 2010 GHG Emissions Inventory**



To address our impacts, we have been making significant improvements in our business operations. In 2010, our Materials Recovery Facility went through lighting and equipment upgrades to decrease our cost and improve our energy efficiency. As a result of the upgrade our operations are saving us over 29,000 kWh annually.

In 2005, we made the choice to invest in clean fuel vehicles and now there are seven new Compressed Natural Gas (CNG) trucks collecting and serving the solid waste

routes around the city. These trucks avoid the use of 25,000 gallons of petroleum-based diesel. “Natural gas (CNG) is the cleanest of all the fossil fuels, composed primarily of methane, the main products of the combustion of natural gas are carbon dioxide and water vapor, the same compounds we exhale when we breathe. The combustion of natural gas, releases very small amounts of sulfur dioxide and nitrogen oxides, virtually no ash or particulate matter, and lower levels of carbon dioxide, carbon monoxide, and other reactive hydrocarbons” (Natural Gas.org, 2013). We hope to increase our CNG fleet over time and switch most of our vehicles to CNG. Our expectation is to add five more clean fuel vehicles to the fleet in the next few years, giving us twelve CNG trucks that will all be fueled by CNG that can be produced by us at our site.

We are also planning to install an anaerobic digestion composting system to increase the amount of organic materials processed. This is how we will produce our own CNG to fuel our heavy refuse and recycling collection fleet, consequently lowering our GHG emissions exponentially when we eliminate the cost of having to purchase CNG from an outside source.

In our projections, as seen in table 1, the installation of an anaerobic digestion composting system will process annually 20,000 tons of organic material and produce approximately 111,891 diesel gallon equivalent (DGE), which would provide enough CNG to fuel 14 solid waste and recycling collection vehicles per day and will reduce our dependence in diesel fuel by 50,000 gallons annually. Beyond increasing the capacity to process organic materials and producing clean fuel, the anaerobic digestion system will yield an annual production of 8,882 tons of finished compost and 160 KW of power. And, reduce GHG emissions by 18,192 MTCO<sub>2</sub>e over a period of 30 months.

**Table 1. Benefits of the Anaerobic Digestion System**

| <b>Anaerobic Digestion System</b>   | <b>Benefits</b>                    |
|-------------------------------------|------------------------------------|
| Processing of organic waste         | 20,000 tons annually               |
| Production of organic compost       | 8,882 tons annually                |
| Production of clean fuel            | 111,891 gallons annually           |
| Fueling trucks with CNG             | 14 trucks fueled daily             |
| Generation of energy                | 160 kW annually                    |
| Reduction in dirty fuel consumption | 50,000 gallons annually            |
| Reduction in GHG emissions          | 7,276 MTCO <sub>2</sub> e annually |

This is a unique “full circle” local project, including the collection of organic feedstock, capture of bio-methane, composting of solid digestive material, conversion of bio-methane into compressed natural gas (CNG), use of CNG by local refuse and recycling fleet, and sale of organic compost to landscapers, wineries and general public, all taking place within Napa County.

As part of our plan to have a closed loop system, a biomass plant is in the planning which will generate renewable energy on-site, to increase our service offerings to the local market, decrease our costs, and to further lower our GHG emissions. This plant will be able to generate one mega-watt (1.0 MW) of renewable energy thus decreasing the importation of 5,063,312 kWh per year of PG&E grid electricity and extinguishing the exportation of 11,500 tons of wood chips to the Central Valley.

The biomass gasification plant utilizes a combined heat and power (CHP) engine as an enabling technology to dry out grape pumice for cattle feed and to dry out the wood chips for a more efficient conversion process. It also uses urban wood waste feedstock as a renewable source of energy. The GHG emissions for our on-site facility alone will decrease by 1,199 MT CO<sub>2</sub>e per year, or by 39% from the baseline. The 522 trips of hauling wood chips to the Central Valley would not occur, effectively reducing GHG emission by 188 MT CO<sub>2</sub>e per year. The production of 1,360 tons per year of bio char will sequester carbon in the soil and decrease GHG emissions by 3,764 MT CO<sub>2</sub>e per year. As seen in table 2, this project would help to decrease our GHG emissions by 5,151 MT CO<sub>2</sub>e per year.

**Table 2. GHG Emissions Reduction due to Biomass Plant**

| <b>Biomass plant</b>             | <b>MT CO<sub>2</sub>e Reduction</b> |
|----------------------------------|-------------------------------------|
| Production of biochar            | 3,764                               |
| Energy generate on-site          | 1,199                               |
| Processing of wood chips on-site | 188                                 |
| Total emissions reduced          | 5,151                               |

### 6.3 Development of Napa's Local Market

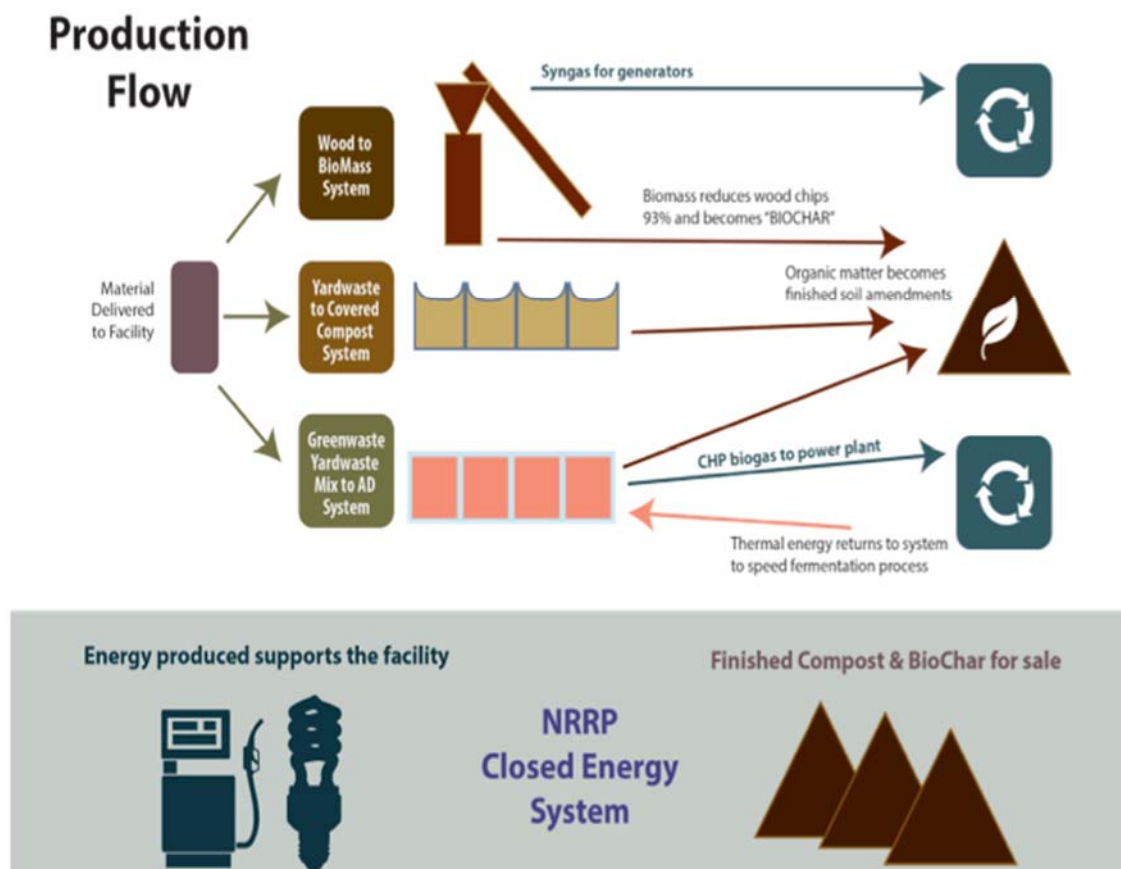
The biomass technology to process organics in the facility will expand the benefits beyond just our facility. We will be able to generate enough renewable energy on-site to distribute annually 1,236,655 kWh to net-meter back to the community. Along with the energy distributed, the by-product of the organics processing using the biomass technology and the bio char, will enable the protection and preservation of our surrounding community. Bio char functions as a soil enhancer, making the soil more fertile and reducing the need for chemical and fertilizer inputs (International Biochar Initiative, 2013).

We expect to keep developing the local market to increase the use of compost and bio char in the vineyards, in landscaping projects, and in community projects. Together, the two products assist in the natural preservation of our lands and in the production of our locally sourced food. We are planning to replace the Materials Recovery Facility (MRF) roof to a more advanced roof that will include solar panels to produce our own



energy onsite to operate a MRF that runs on clean, solar energy. The design of the closed energy system (see figure 10) will decrease our GHG emissions, increase our capacity to deliver services to the community, reduce our dependence on fossil fuels, and will improve Napa's renewable energy portfolio.

**Figure 10. Napa Renewable Resources Project - Production Flow**



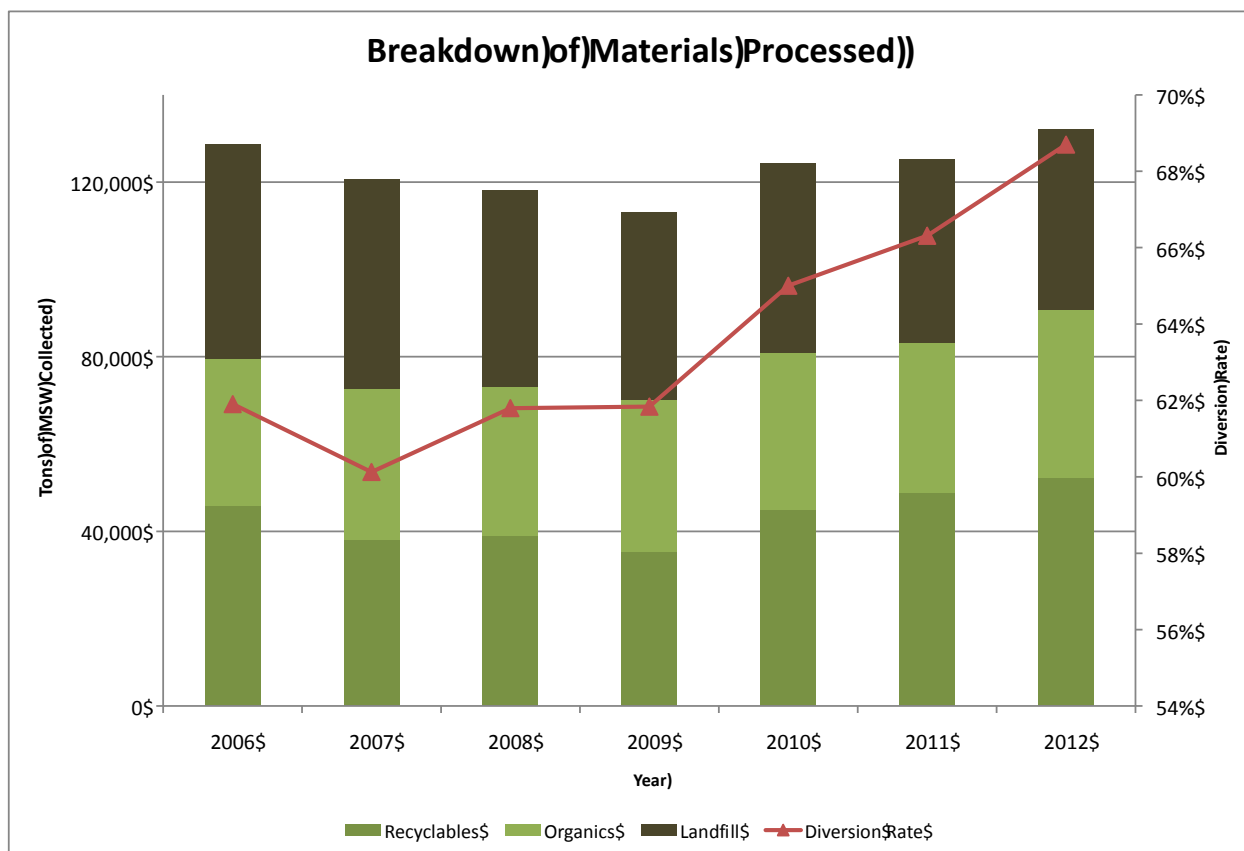
#### 6.4 Support for Napa's Sustainability Goals and California's Diversion Rate Goals

NRWS actively works with our customers to reduce, reuse, recycle, and recover materials from the waste stream to save natural resources, energy, and money. It is estimated that the state of California produces annually 39,722,818 tons of municipal solid waste (California Environmental Protection Agency, 2008). California has instituted legislation to reduce statewide GHG emissions in the management of municipal solid waste.

The current regulation, Integrated Waste Management Act 939, requires every city and county to divert 50% of all solid waste through source reduction, recycling, and composting activities. The next regulation, Assembly Bill 341 sets a statewide goal that

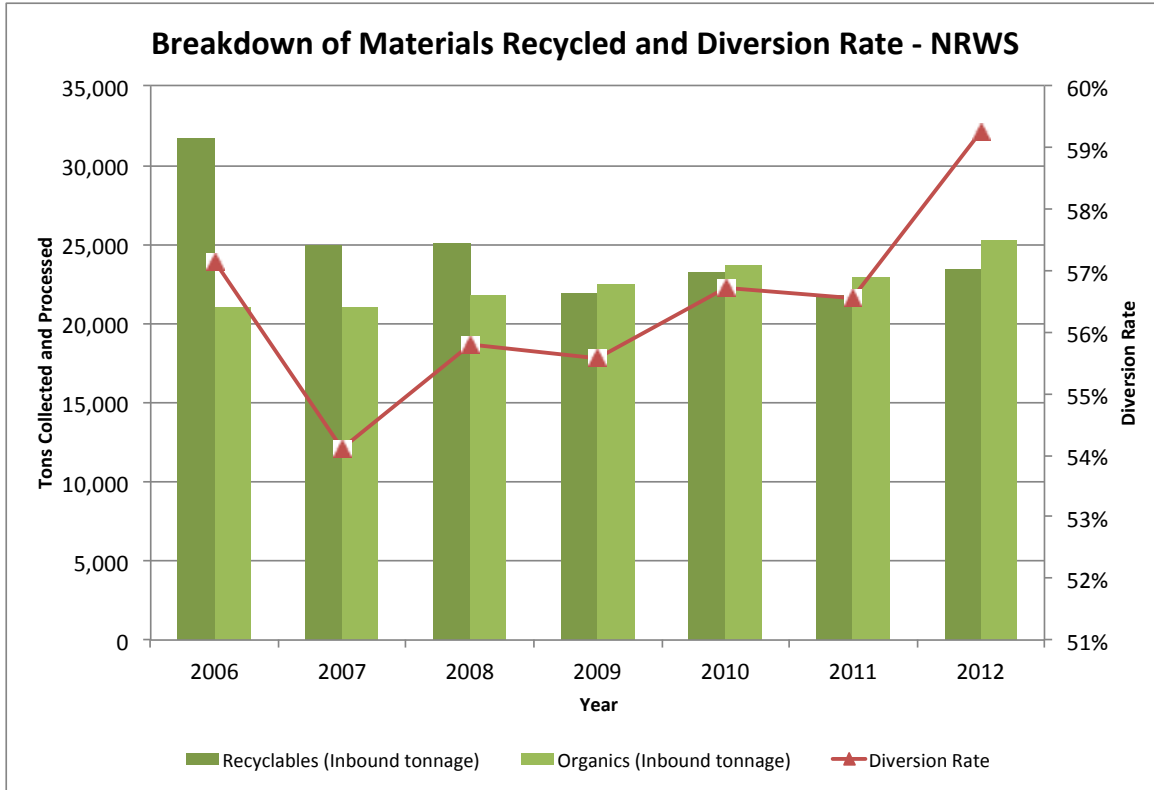
75% of waste is diverted from landfill disposal by the year 2020. In 2012, the City of Napa reached a diversion rate of almost 60% and the southern unincorporated Napa County reached a diversion rate of 84%, one of the highest rates in the State.

**Figure 11. Breakdown of Materials Processed in the MDF from 2006 to 2012**

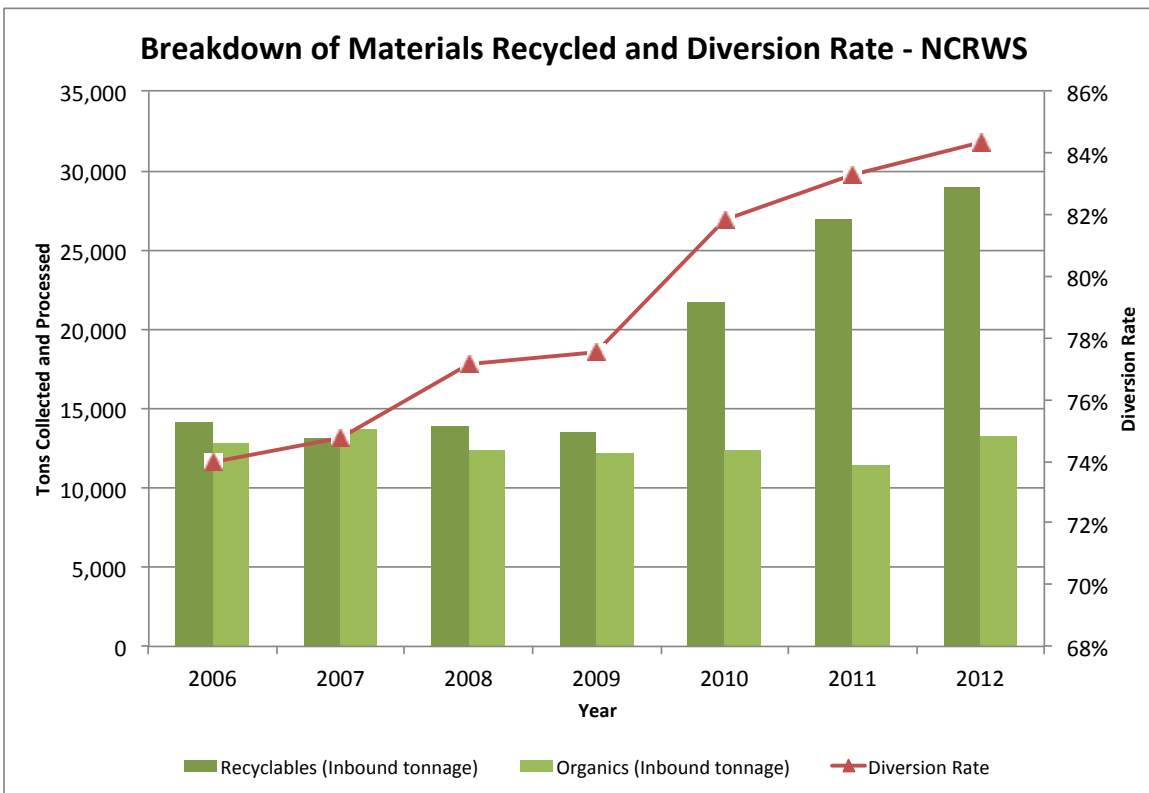


We are fully committed to Napa's sustainability plan and have steadily increased our rate of recycling and composting in the City and County of Napa. Figure 11 shows the breakdown of materials processed by the MDF from 2006 to 2012, jointly, the City of Napa and the southern unincorporated Napa County produces, an average of 123,000 tons of municipal solid waste annually. NRWS and NCRWS are already fully compliant with AB 341; the state mandated waste diversion bill and NCRWS has reached a diversion rate beyond the mandate. In 2012, we handled over 132,000 tons of municipal solid waste with 52,000 tons of recyclable materials and 38,000 tons of organic materials. Figure 12 and 13 shows the diversion rate and the breakdown of materials recycled and diverted from the landfill from both the City of Napa and the southern unincorporated Napa County.

**Figure 12. Diversion Rate and Breakdown of Recyclable and Organic Materials Collected in the City of Napa and Processed in the MDF from 2006 to 2012**

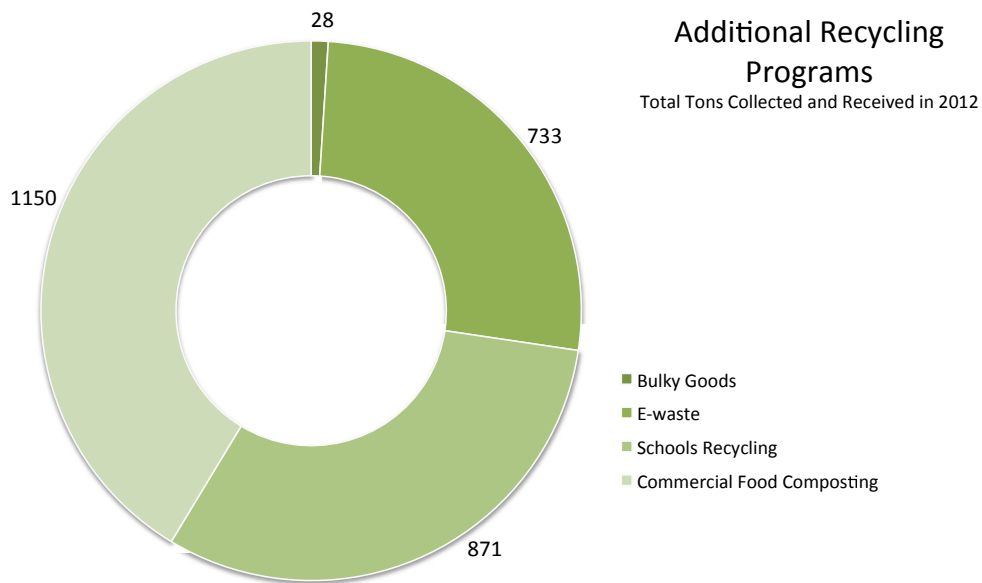


**Figure 13. Diversion Rate and Breakdown of Recyclable and Organic Materials Collected in the southern unincorporated Napa County and Processed in the MDF from 2006 to 2012**



We constantly are looking for ways to improve the City and County performance in diversion rates and to provide a quality level of service to our customers. The number of recycling programs were expanded to enhance the City's diversion rate and to reduce Napa's GHG emissions. Currently, a number of additional recycling programs are in place to better serve businesses and residents. As seen in figures 14 and 15, in 2012, these additional programs received over 2,700 tons of materials at our facilities and over 3,000 gallons of motor and cooking oil was collected and diverted from landfills.

**Figure 14. Additional Recycling Programs – Amount of Materials Collected in 2012 – In Tons**



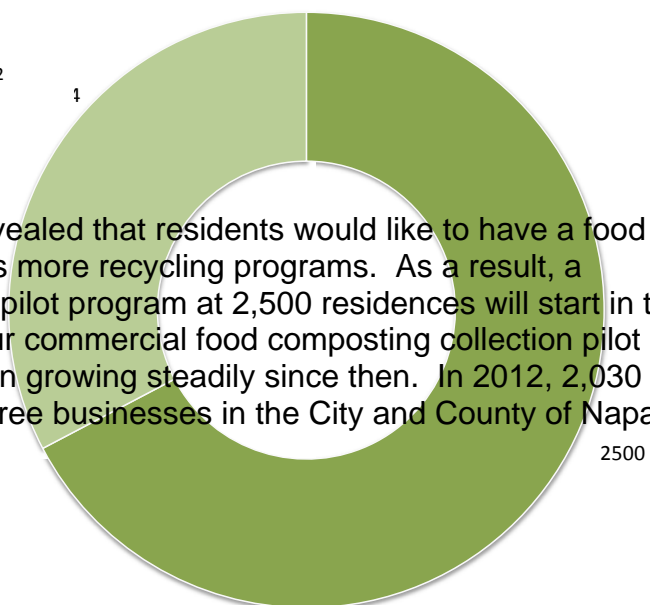
**Figure 15. Additional Recycling Programs – Amount of Materials Collected in 2012 – In Gallons**

### Additional Recycling Programs

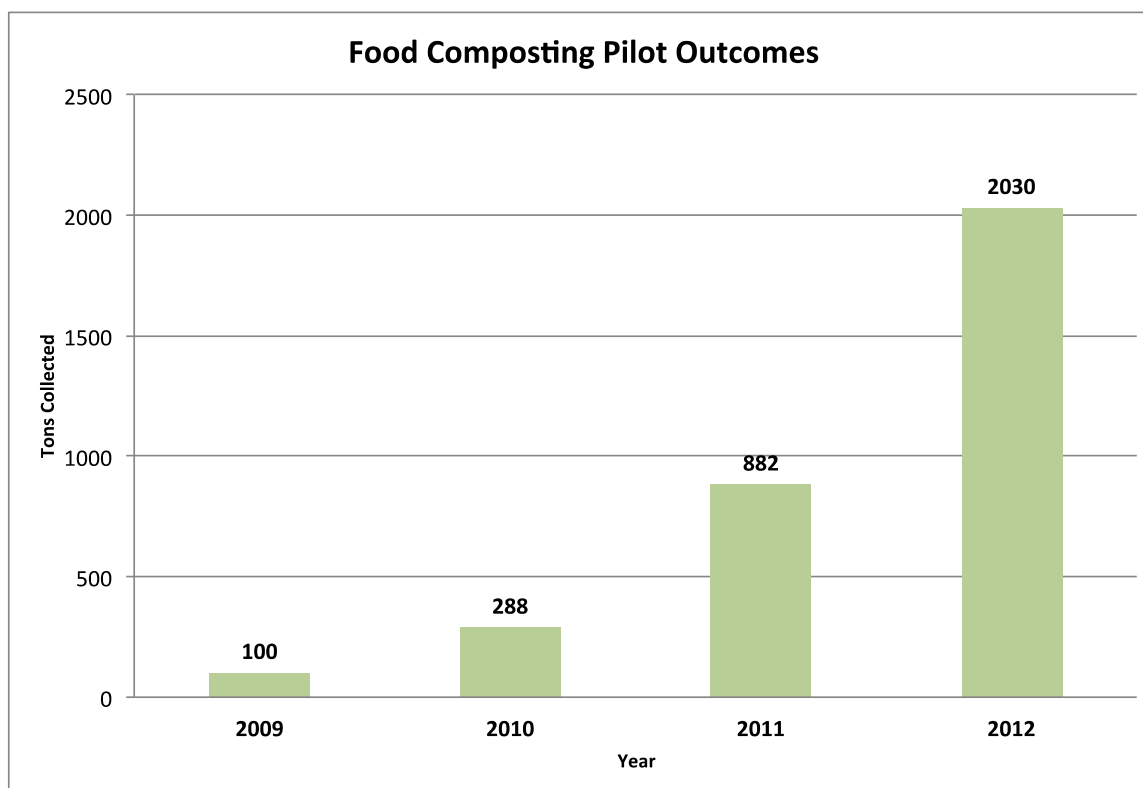
Total Gallons Collected and Received in 2012

In 2011, a citywide survey revealed that residents would like to have a food waste composting collection as well as more recycling programs. As a result, a residential food composting collection pilot program at 2,500 residences will start in the spring of 2013 in the City of Napa. Our commercial food composting collection pilot has been in place since 2009 and has been growing steadily since then. In 2012, 2,030 tons of food waste was collected at sixty-three businesses in the City and County of Napa.

■ Used Motor Oil (Recycled)  
■ Used Cooking Oil (Collected)



**Figure 16. Amount of Food Waste Collected in the Food Composting Pilot from 2009 to 20**



Our constant search for new and better solutions led us to offer in 2013, a special route – Recycle More route – that conveniently collects at the residential curbside used cooking oil, metal, and e-waste for our residential customers. We are studying the feasibility to start collecting clothing, carpets, mattresses, furniture, and other reusable materials. Our partner in this operation, Yokayo biofuels, generates green collar jobs in Mendocino County by transforming the cooking oil collected from our customers into biodiesel.

To increase the variety of materials recycled, a number of policies need to be in place; NRWS has supported the final version of SB 1118 (Hancock): the Mattresses Recycling and Recovery Act, which calls for extended producer responsibility in the mattress industry in California. In 2013, we will keep our support for more legislation to increase the rate of recycling and to require producers' responsibility.

## **6.5 Our Environmental Management Processes and Our Products Certifications**

The waste management industry is highly regulated by local and state agencies. NRWS and NCRWS have adopted an integrative and closed loop approach to manage

our environmental impacts in the region. The County and State conduct monthly audits and our company has been complying with all County and State permits.

Our facility is fully compliant with the California Environmental Resources Evaluation System's. The California Environmental Quality Act (CEQA) is a statute that requires state and local agencies to identify the significant environmental impacts of their actions and to avoid or mitigate those impacts, if feasible. Our facility also complies with all the California's Department of Resources Recycling and Recovery (CalRecycle) permits for air and water emissions.



Our compost is certified by the United States Composting Council's Seal of Testing Assurance and it is tested on a monthly basis for nutrient content and pathogens. The results of our compost testing show that our compost is a high quality product with an acceptable rate of nutrients and is free of pathogens. NRWS compost is listed by the Organic Materials Review Institute (OMRI) for use in organic production and is approved as an Organic Input Fertilizing Material by the California Department of Food and Agriculture (CDFA).



## VII. Our Promise and Our Future

Everyone at Napa Recycling and Waste Services wants to thank you for reading our sustainability report. We have shown in the past that we are committed to protecting the environment and we will continue to work hard to make the world a cleaner place. It is our pledge to all our customers that we will continue to find innovative and creative ways to decrease our footprint and become a more sustainable company. Protecting the

environment is a passion that we have and we will continue to develop innovations, create partnerships, work with community members and push the waste and recycling industry to new heights.

Here is a list of our goals to provide quality services and products to the City and County of Napa using the most advanced closed loop technologies:

- a) Installing an anaerobic digestion system to increase our capacity to collect organic materials and to produce Compressed Natural Gas (CNG) to fuel our trucks.
- b) Replacing 15% of our diesel fleet and convert to CNG, totaling 12 CNG trucks.
- c) Reducing our dependence on fossil fuel by producing our own CNG onsite to fuel 12 solid waste and recycling collection vehicles per day.
- d) Installing a biomass plant to generate renewable energy onsite lowering our GHG emissions and providing a source of renewable energy to the community.
- e) Promoting and increasing the usage of compost and bio char in our local community.
- f) Increasing the amount of food waste collected.
- g) Applying a covered compost system technology to reduce our odor emissions and water run-off in our composting facility.







**Napa Recycling**  
and Waste Services

# Environmentally Preferable Purchasing Program

March 2017

## Mission Statement

"Napa Recycling & Waste Services, LLC and its affiliated companies are committed to providing solid waste management services of the highest quality delivered with pride and professionalism to all our customers, utilizing environmentally sensitive equipment that is safe, efficient, reliable and appropriate to the work we perform. In carrying out our mission, we intend to provide and maintain the best possible work environment for our employees, fully cooperate with all governing and regulating agencies, and continue to do our part to help create a sense of partnership between our company and the communities we serve."

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# SECTION 1

## Overview and Purpose of Policy

Napa Recycling & Waste Services, LLC (NRWS) is committed to reducing its, and its clients' impact, on the environment. The purpose of this Environmental Purchasing Policy (EPP) is to demonstrate NRWS's commitment to procuring products and services that reduce greenhouse gas emissions, minimize toxic exposures, conserve energy and water, are offered by companies with a convenient recycling system, and that can yield other community-wide benefits. By incorporating environmental considerations in our purchasing, NRWS can reduce its burden on the local and global environment, remove unnecessary hazards from its operations, protect public health, reduce costs and liabilities, and help develop markets for environmentally responsible products.

The EPP will help NRWS conserve water, energy, and material while also allowing us to reduce our impact on the environment as well as our long-term operating and maintenance costs. This EPP will also assist NRWS in LEED certification applications for its existing and future buildings, when appropriate.

The goal of this policy is to encourage and increase the use of environmentally preferable products and services at NRWS. By including environmental considerations in purchasing decisions, NRWS can promote practices that improve public and worker health, conserve natural resources, and reward environmentally conscious manufacturers, while remaining fiscally responsible.

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## SECTION 2

### Environmentally Preferable Purchasing Policy

NRWS will institute purchasing procedures that shall minimize negative impacts on human health and the environment. Establishing operational purchasing decisions and practices will reduce the consumption of goods, packaging spent on shipping, and operation costs.

#### Goods and Products

Buyers should look for supplies & services that meet one or more of the following specifications, if applicable:

##### *Attributes, Certifications & Eco-labels*

###### ❖ Save Resources & Reduce Waste:

Recycled, Remanufactured, Responsible Forestry, Reusable, Rapidly Renewable, Biobased, Compostable, Refillable, Rechargeable, FSC, SFI, PEFC, SCS Recycled Content, Rainforest Alliance, Water Sense, CradletoCradle



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❖ Save Energy & Reduce Emissions:

Energy Efficient, Renewable Power, Carbon-balanced, Energy Star, Green-e



❖ Use Safer Chemical & Safeguard Human Health:

Reduced Harsh Chemicals, Chlorine-free, Biobased, Biodegradable, USDA Organic, U.S. EPA Design for the Environment, Greenguard, GreenSeal, Ecologo, SCS Indoor Advantage, ACMI, CFP, CRI, UL Environment



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Products should include recycled content, post-consumer or repurposed content. When applicable, products should be durable, reusable, recyclable, compostable, biodegradable, and/or long-lasting. Products should minimize release of greenhouse gases, local pollutants, persistent and bio-accumulative toxins, carcinogenic chemicals, and other agents that may deteriorate long-term health. If raw materials are used in products, they should be farmed and harvested sustainably, as well as come from a renewable source.

NRWS has made significant investments in developing a successful recycling system and recognizes that recycled content products are essential to the continuing viability of that recycling system and for the foundation of an environmentally sound production system. Therefore, to the greatest extent practicable, recycled content shall be included in products that also meet other specifications, such as chlorine free or bio-based.

Buyers will assure orders are placed efficiently and comprehensively, so as to reduce packaging as much as possible. When possible, purchasing from local companies is preferred. The health and safety of workers and citizens is of utmost importance and takes precedence over all other practices. Nevertheless, NRWS recognizes its duty to act in a fiscally responsible as well as a timely manner.

## **Building Maintenance and Land Upkeep**

NRWS will consider Green Building practices for design, construction, operation, and maintenance as described in the LEED™ Rating System for all buildings and renovations undertaken by CCWS. Products used should be low in volatile organic compounds (VOCs) and high, preferably over 30%, in recycled or post-consumer content.

For land upkeep, NRWS will consider sustainable landscape management techniques for landscape renovations and maintenance performed at NRWS facilities, where feasible. We will favor the use of native and drought-tolerant plants that require no or minimal watering once established. NRWS will contract with local landscapers that have training and qualifications that include conserving water, conserving energy, and protecting water and air quality.

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## Procedures

Buyers are responsible for selecting products and services that meet the EPP standards while assuring that the good or service will be obtained at a reasonable cost, arrive in good time, and still ensure worker safety. Purchasing goods in bulk is preferred as it reduces total packing used.

NRWS management shall implement this policy in coordination with the buyers and bookkeeping staff. The buyers and other staff can make recommendations of products to target under the policy. These groups may also find obstacles with the implementation of this EPP policy and devise solutions to mitigate them. Management and buyers will educate employees of NRWS of the new EPP guidelines and enlist their participation in the program. Management, along with applicable administrators, will review current purchasing and contracting policies to ensure access of suppliers that offer environmentally friendly goods and services.

## Program Evaluation

Buyers, bookkeepers, and others involved in the implementation and enforcement of EPP will review this policy with management at least annually and recommend updates.

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## Program Adoption

This EPP has been adopted, effective March 7, 2017

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Greg Kelley

Operations Manager

Napa Recycling & Waste Services, LLC