North County Household Hazardous Waste Facility Feasibility Study

Prepared for:

Zero Waste Sonoma

2300 County Center Drive, Suite B-100

Santa Rosa, CA 95403



By

Aptim Environmental & Infrastructure, LLC



And



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HOUSEHOLD HAZARDOUS WASTE FACILITY FEASIBILITY STUDY

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1 INTRODUCTION

The Sonoma County Waste Management Agency (Zero Wase Sonoma, herein ZWS) currently provides Household Hazardous Waste (HHW) management for its residents at the Household Toxics Facility (HTF) located at the Central Disposal Site at 500 Meacham Road in Petaluma. In addition, Community Toxics Collections (CTC) events are provided by ZWS in areas distant from the HTF. Operation of the HTF and CTC events are conducted by a private hazardous waste contractor.

ZWS commissioned a HHW program expansion analysis in 2018, *Sonoma County Waste Management Agency, Household Hazardous Waste Program, Program Expansion Analysis*¹. The analysis reported Sonoma County residential and business participation as summarized on Figure 1²

Figure 1



Community Toxics Collection Participation

¹ Sweetser & Associates, May 2018

² From Figure 2-1 of the analysis

The analysis ultimately concluded the northern areas of Sonoma County from Santa Rosa north to the Cloverdale-Geyserville area were underserved by the HTF hence heavily reliant on the CTC events. CTC events rotate "around the county one day per week with about 49 events per year" for 4 hours each event.

Based on that conclusion, the Sweetser analysis continued with analysis of siting criteria, program expansion options including facility locations, facility capital and operational cost, and funding options for a new north county HHW facility. ZWS staff presented a *North County HHW Facility Progress Report* to the ZWS Board on January 15, 2020. The report presented 4 candidate locations for a new north county HHW facility and recommended issuance of a Request for Proposals (RFP) for a site feasibility study of the selected location. The recommended RFP was issued with proposals received by March 13, 2020.

The four locations initially considered included existing warehouse space and bare property near the Santa Rosa Airport and two separate locations at the Healdsburg transfer station. Ultimately, none of these locations proved acceptable to the criteria reported in the program expansion analysis. Hence a search for new locations began.

ZWS located a 4.36-ac property that was acceptable to the program expansion goals on Pruitt Avenue in Windsor, California. In spring 2023, ZWS issued instructions to Aptim Environmental & Infrastructure, LLC (APTIM) to commence the feasibility study on the selected property. The feasibility study scope of work consisted of;

- 1. Project Scoping.
- 2. Property Research
- 3. Photo Documentation
- 4. Code Analysis
- 5. Permitting and Approval Analysis
- 6. Topographic Survey
- 7. Phase I Environmental Assessment
- 8. Existing Conditions Drawings
- 9. Improvement Options
- 10. Feasibility Study and Conceptual Cost Estimate

The feasibility study contained herein then serves as a supplement to the expansion analysis focusing on the physical and permitting feasibility of the subject property.

2 WINDSOR PROPERTY RESEARCH

The proposed site location is shown on Figure 2. It is accessible from Highway 101 at the Shiloh Road exit. It is located in the south Windsor heavy to light industrial zone.

Existing features and uses on the site are shown on Figure 3. Current tenants on the property are Elite Concrete; BKW Concrete, Inc., in Building 1 on the west side of the property, and Restoration Concrete Abatement in two other buildings to the east of Building 1. Building 1 was built before 1968 along with much of the existing industrial area, and Standard Avenue³.

Building 2 was built before 1983 when Pruitt Creek was diverted into a straight channel along the northeastern property line. Property access at this time was from Standard Avenue which now exists as an alleyway along the western property line, and a bridge crossing Pruitt Creek.

Existing topography on the property is shown on Figure 4. The property is mildly graded at approximately 1 percent from the southeast corner to a low point in the northwest discharging into Pruitt Creek.

³ *Phase I Environmental Site Assessment, 5865 - 5897 Pruitt Avenue, Windsor, CA 95492*, April 6, 2023, APTIM. This is a very large PDF document so is not included as an appendix to this document but rather included by reference.





DESCRIPTION

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2.1 Zoning and Land-Use Compatibility

Surrounding land use to the property is depicted on Figure 5. The property itself is zoned Heavy Industrial by the Town of Windsor which is compatible with the intended use. To the west, north, east, and south, property is zoned as Planned Development. Property use within that zone is heavy (Northgate Ready Mix), to light (Storage Pro Self Storage) industrial, and undeveloped land between Pruitt Creek and Highway 101. To the southwest is Heavy Industrial zoned property currently occupied by a contractor's equipment storage yard. A cellular phone tower owned by Crown Castle Inc. exists off old Standard Avenue north of Pruitt Creek.

Regarding environmental risk from previous land use on the property and neighboring properties that could be assumed by ZWS, the Phase I Environmental Site Assessment (ESA) - performed as part of the scope of work - revealed the following recognized environmental conditions (REC):

- The presence of fill material in the former Pruitt Creek channel on the subject property from an unknown source meets the American Society for Testing Materials (ASTM) definition of a REC on the subject property.
- The Ecodyne Tower Site is engaged in active monitoring of hexavalent chromium in groundwater. Since the site is located in proximity to the subject property and groundwater flow direction has historically fluctuated to the northeast in the direction of the subject property, the Ecodyne Tower Site meets the ASTM definition of a REC on the subject property.
- Since the Shiloh Group Property is an active site cleanup program with identified operable units along the eastern boundary of the property, remediation activities on the Shiloh Group Property meet the ASTM definition of a REC on the subject property.

In response ZWS contracted APTIM to conduct a Limited Phase II ESA in which soil and groundwater samples were taken for laboratory analysis. Some constituents of concern were detected. However, the Phase II ESA concluded⁴:

The Site does not appear to be grossly impacted by the RECs identified in the Phase I ESA Report. However, there are risks of exposure to naturally occurring arsenic, hexavalent chromium, lead, mercury, naphthalene and DEP. These impacts could be addressed by insitu and ex-situ remediation measures such as shallow excavation, soil injection, and pump and treat systems. They can be remedied by implementing risk-based measures like the installation and maintenance of engineered barriers, adherence to a soil management plan, and prohibition of groundwater well installation/use.

As reported in the Phase I ESA, the property was originally bisected by a curving natural

⁴ Limited Phase II Environmental Site Assessment Report, 5885 Pruitt Avenue, Windsor, California, October 30, 2023, APTIM. This is a very large PDF document so is not included as an appendix to this document but rather included by reference.

channel along Pruitt Creek. Sometime before 1983, the Pruitt Creek natural channel was filled and replaced with a straight channel to allow additional building construction on the property (Current X-shaped quonset style building). Natural channel fill material was presumably borrowed from the straight channel excavation.



2.2 Utility Service

From the Phase I ESA:

According to Site personnel, potable water is currently supplied to the Site by the City of Windsor.

The Site is currently connected to the Town of Windsor municipal sanitary sewer system for the discharge of domestic wastewater.

Electricity and natural gas for the Site are supplied by Pacific Gas and Electric.

From construction plans prepared in 2003⁵, a 42-inch reinforced concrete pipe provides Pruitt Avenue stormwater drainage within a 10-foot-wide public storm drain easement on the property along the east side of the old Standard Avenue roadway on the west side of the property from a catch basin on Pruitt Avenue discharging to Pruitt Creek on the upstream side of the existing bridge.

2.3 Roadways

The property is accessed from the private roads, Cailetti Avenue and Pruitt Avenue. Cailetti Avenue provides access to the entire industrial area from Shiloh Road (public). From aerial photos in the Phase I ESA, Standard Avenue was the main access to the industrial zone through 1983. Cailetti Avenue was built between 1983 and 1993 including a Pruitt Creek bridge crossing replacing Standard Avenue as the industrial area main access road. Standard Avenue is now an alleyway along the western property line of the subject property, and a truck storage yard north of Pruitt Creek.

The industrial area the property is located in was developed by various investors between 1952 and 1968 when Standard Avenue was constructed as well, including the existing bridge over Pruitt Creek on the property – before creation of the National Flood Insurance Program by Congress in 1968. This bridge was constructed at least 55 years ago and before current floodplain regulations were developed. The property is on the upstream side of this bridge and within the floodplain as discussed below.

2.4 100-yr Floodplain

The Special Flood Hazard Zones (SFHZ) on the property and surrounding properties is shown on Figure 6. Approximately ³/₄ of the property is designated in the Zone AE SFHZ in the northwestern section. Pruitt Creek is a Zone AE designated floodway. The Zone AE base flood elevation is 116.7-ft MSK at the southeastern corner of the property and 116-ft MSL at the property midsection indicating a hydraulic grade of 0.002 ft/ft per Figure 6. The property midsection is also the location of the proposed HHW facility. To avoid building flooding, the building pad of the facility should be

⁵ Mitchell/Shiloh,/Conde Assessment District, Pruitt Avenue Extension, Standard Structures, Standard Avenue and Pruitt Avenue Utilities Plan and Profile, Paul L. Shoch, Consulting Engineer, for Shiloh Oaks Co. LLC

constructed to elevation 117-ft MSL.

The shape and extent of Zone AE indicates substantial temporary flood volume storage occurs upstream of the former Standard Avenue bridge over Pruitt Creek. Therefore, any development of the property that fills within the floodplain will have to compensate for that temporary storage loss with corresponding excavation of free draining basins within Zone AE to avoid increasing the base flood elevation for neighboring properties south of the property along Standard Avenue.



3 CONCEPTUAL SITE IMPROVEMENTS

Site improvements are depicted on Figures 7 through 9.

The draft concept design developed by Aptim is depicted on Figure 7. As shown, ingress and egress to/from the proposed facility will continue to be provided at two existing access drives from Pruitt Avenue– one near the southeast corner of the property, and one near the southwest corner. As discussed above, the existing (former Standard Avenue) bridge at the northwest corner of the property is quite old. APTIM advises this bridge should not be used for customer or truck traffic without a thorough investigation of its structural integrity.

The concept includes an approximate 10,750 square foot building (Figure 8) with an attached covered drive-through unloading area, caged exterior area for storage of select solid wastes and gas cylinders, and a loading dock. It should be noted that the loading dock depth and design will need to be evaluated in consideration of a water table depth investigation and the base flood elevation (described in greater detail below). The use of flood-proofing design and construction techniques and/or dock levelers may be necessary.

In addition to the main building, the concept design includes areas for carport-style canopies that can house roll-off containers to allow for acceptance of non-HHW recyclable materials should Zero Waste Sonoma desire.

3.1 Traffic Flow

Traffic for the conceptual facility is envisioned as counterclockwise to minimize vehicle conflicts. Facility employees and users would enter the property at the southeast corner and be directed to the appropriate drop-off point.

Customers wanting to visit the exchange store would access the facility from the southwest entrance (Figure 9) and proceed to the exchange store parking area. Customers intending to deliver HHW or other approved materials would access the facility in the southeast entrance and will be directed to the covered unloading area (or to the appropriate roll-off container) from a staffed receiving kiosk in the parking lot at sufficient distance from the entrance to minimize traffic queuing on Pruitt Avenue. The kiosk location could be potable to allow relocation to accommodate heavier weekend traffic

In all instances, counterclockwise traffic flow is envisioned and sufficient turning radii exists to accommodate the various vehicles that would be accessing the facility. All

vehicles would exit the facility in the southwestern entrance. Paved passenger vehicle parking areas are shown for 24 vehicles to accommodate facility employees and visitors. The facility will be fenced and gated to restrict access when closed.

3.2 HHW Building Operations

The draft building concept also includes preliminarily designated areas for material acceptance, sorting, bulking, storage and containment, loadout, restrooms, mechanicals, and includes area for an exchange store (Figure 8).

Once accepted in the covered unloading area, the materials would be moved into the building, segregated, and separately stored by hazard type. It is assumed that the majority of the bulked liquid materials will be stored in 55-gallon drums, although some bulked liquids may be desired to be stored in larger capacity containers (e.g. transportable totes or exterior above ground tanks). Other materials may be stored in pallets and/or Gaylord boxes, storage shelves/cabinets, or roll-off (or shipping) containers. It should be noted that the layout and storage configuration depicted on Drawing D5 is for illustration purposes only. The ultimate design will need to be based on the anticipated types and quantities of material to be received.

It is recommended that the floor within all sorting, processing, and storage areas be constructed of epoxy-coated concrete with water-stops and sloped to spill collection points. Adequate secondary spill containment will need to be provided for different hazard types as necessary to prevent any potential mixing hazards or spills from escaping the building. Secondary containment measures may include concrete barriers, zerodischarge foundation design, sumps, spill containment pallets, and/or double wall tanks. Ventilation will be required in areas where bulking of flammable liquids is performed.

3.3 Building Alternatives

APTIM understands ZWS has additional uses envisioned for the property and building such as staff office space and a board meeting room. Depending on office and meeting room size, these options may be accommodated on the property by means of a second floor. However, this option would require installation of an elevator for compliance with the Americans with Disabilities Act. The building single floor footprint could be increased by reducing the unloading area by one lane, relocating the southern parking area to the location of the south covered unloading area, and expanding onto the grass open spaces to the east of the conceptual building footprint shown on Figure 7.



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NOTES

1. THE BUILDING LAYOUT AND MATERIAL STORAGE AREAS DEPICTED ON THIS DRAWING ARE CONCEPTUAL FOR ILLUSTRATION PURPOSES ONLY.

ZERO WASTE SONOMA HHW SITE FEASIBILITY STUDY

FIGURE 8 CONCEPTUAL BUILDING LAYOUT

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LEGEND

APPROXIMATE PROPERTY BOUNDARY BUILDING PAVED LAND COVER GRASS OPEN SPACE **BIOFILTRATION AREAS** WOODED OPEN SPACE WATER VEGETATED SWALE CULVERT UNDER ROAD ROAD EASEMENT

UTILITY EASEMENTS

TOWN OF WINDSOR CREEKSIDE DEVELOPMENT PLAN SETBACK

TRAFFIC FLOW

NOTES

- EXISTING CONTOURS DEVELOPED FROM U.S GEOLOGICAL SURVEY, 20171019, USGS ORIGINAL PROJECT RESOLUTION SONOMA_COUNTY_CA_LIDAR BH_SOCO_0046: U.S. GEOLOGICAL SURVEY.
- 2. APPROXIMATE EASEMENTS FROM BRELJE & RACE. PRELIMINARY STUDY. 5885 PRUITT AVE. SITE EXHIBIT.

ZERO WASTE SONOMA HHW SITE FEASIBILITY STUDY

PROPERTY EASEMENTS AND GENERAL TRAFFIC FLOW

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3.4 Floodplain Development

Construction outside of the Regulatory Floodway, but within the Zone AE Special Flood Hazard Area will require a Floodplain Development Permit from the Sonoma County Floodplain Administrator. Application for this permit requires site plans showing the locations of various site elements as well as certification that any structure will meet the floodproofing requirements within the ordinance (e.g. anchoring and flood resistant materials). Such floodproofing is possible through thoughtful site design or by setting the finished floor above the base flood elevation.

As shown (Figure 10), the concept design includes a finished building floor that is approximately 2 feet above the base flood elevation (BFE) of 116-ft MSL. Increasing this finished floor elevation may be desired to increase separation of the finished floor and recessed loading dock from the BFE. However, this will require may impact building access. Final floor elevation will be determined during the civil and architectural design phase of the project.

While fill is allowed in the special flood hazard area floodplains, fills in these areas are subject to no net fill provisions of Sonoma County Code section 11.14.020(C.9). This means that any fills need to be offset with equivalent cuts (storage) to maintain the parcel's flood temporary storage capacity avoiding impacts to the BFE for neighboring properties. These cut storage areas need to be graded to blend with the natural terrain and allow for the rise and recession of floodwaters. This has been incorporated into APTIM's conceptual design with the inclusion of storage in biofiltration areas that are connected to the creek as shown on Figure 10. Permit level documents will require thorough hydraulic modeling to demonstrate not net loss of floodplain storage.

It should be noted hydraulic modeling or other demonstrations may be required during the permitting phase in order to demonstrate the site design will not impede the parcel's flood temporary storage capacity. These requirements would be at the discretion of the Planning Director and only upon submittal of an advanced design for permit.





ZERO WASTE SONOMA HHW SITE FEASIBILITY STUDY

FIGURE 10 PROPOSED DEVELOPMENT ESTIMATED FLOOD ZONES

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3.5 Industrial Stormwater Management

In addition to reviewing the location of the 100-year floodplain, Aptim also reviewed the requirements of the California Regional Water Quality Control Board, North Coast Region (General Order No. R1-2015-0030, NPDES NO. CA0025054) which describes regulatory requirements for stormwater management.

As the concept development will reduce impervious cover compared to existing conditions, the site will not be subject to volume capture requirements. However, Best Management Practices (BMPs) will need to be incorporated and sized in accordance with the California Stormwater BMP Handbook to treat stormwater pollutants associated with paved surfaces, such as total suspended solids.

These BMPs are anticipated to include tree planting, vegetated buffer strips, stream buffers, high-quality landscaping soils, and/or constructed wetlands. Aptim has allowed sufficient open space and landscape area in the presented concept design for such BMPs and which may also allow for demonstration of some compensatory storage to offset floodplain filling as described above.

Final BMP selection will need to be developed in coordination with Sonoma County as the design is advanced and the project will ultimately need to be registered with the California Water Boards, Stormwater Multiple Application and Report Tracking System.

4 PERMITTING APPROVALS

The construction and operation of an HHW collection facility requires numerous permits. This section provides ZWS with a summary of the permitting and approval process. This will also include any identified special study requirements, offsite improvements, and/or other permitting concerns.

Numerous permits and approvals are subject to requirements of the following agencies where applicable:

- County Planning Department
- City/County Clerk
- Building Department
- Local Utility Company
- Public Works Department
- Local Enforcement Agency/CalRecycle
- Regional Water Quality Control Board (RWQCB)
- Air Pollution Control District/Air Quality Management Board or equivalent agency
- Fire Department
- California Highway Patrol
- Department of Toxic Substances Control
- California Department of Health Services—Radiological Health Branch
- Coordinated Unified Program Administrator (CUPA)
- Occupational Health and Safety Certification
- State Board of Equalization—Environmental Fee Division
- U.S. Army Corp of Engineers
- Wetland regulations: 402 Permit (if impacting wetland(s) or navigable waterway)

In addition to the listed permits and approvals, there are a number of required construction and building permits that are not included in this discussion. Construction and building permits are highly dependent upon the site location, facility design features, and the jurisdiction where the facility will be located. Most permits and approvals must be submitted and approved prior to site operation and applications can be prepared by ZWS, or ZWS' consultant or contractor. Some permits or approvals will require public notices and hearings. Many permits and approvals can be prepared and submitted concurrently. Site conditions will determine extent of some of the permits. The key permits, approvals, safety plans, and estimated permit time periods that may be required include:

Permit/Approval	Approving Agency	Estimated Time
CEQA Review	Local	6-8 months
Use Permit	Local	3-4 months
Hazardous Waste Identification	DTSC	1 month
Number		
Permit-by-Rule (PBR)	CUPA	3 months
Agreement with Property Owner	CUPA	2 months
Operations Plan including Material	Sponsor/Contractor	2 months
Exchange Quality Assurance		
Plan		
Emergency Services Notification	Sponsor/Contractor	2-4 months
Approval by local fire and air district	Local Fire & Air	3-6 months
if bulking of flammables		
will be conducted		
Hazardous Materials Business Plan	CUPA	1 month
Engineer Containment Statement	Professional Engineer	1 month
Hazardous Waste Tank Assessment	Professional Engineer	2 months
Universal Waste Handler	DTSC	1 month
Registration		
Local Government Proof of	CalRecycle	1 month
Designation for Covered Electronic		
Waste		
Home-Generated Sharps	Medical Waste Local	1 month
Consolidation Point	Enforcement Agency	
Injury Illness Prevention Plan	Sponsor/Contractor	1 month
Air Compressor Permit	CalOSHA	3- 6 months
PaintCare Registration	PaintCare/Vendor	1 month
Spill Prevention Control and	Sponsor/Contractor	1 month
Countermeasure Plan		
Phase I Environmental Assessment	Sponsor/Contractor	1 month
(required within one year of		
start of operations)		
Household Hazardous Waste	SCWMA/CalRecycle	2 months
Element		
County Hazardous Waste	Local	3-6 months
Management Plan		

Table 1

Discussion of these permitting elements is provided below as the elements relate to the subject property.

4.1 CEQA Review

The California Environmental Quality Act (CEQA) is the process for public disclosure and review of potential environmental impacts related to the proposed project.

There is no record of any CEQA review for previous or current uses of the property (APN 059-271-82) in a parcel report acquired from the Town of Windsor GIS website. Any CEQA analysis will need to consider the current environmental impacts of the project currently under environmental review, "Shiloh Business Park" on the parcel (APN 059-271-095), immediately adjacent to the northern and eastern boundaries of the parcel.

4.2 Use Permit

A Use Permit authorizes use of the land for the proposed activities. The property zoning designation may approve use of the property with obtaining a Use Permit.

The current zoning designation for the subject parcel is HI (Heavy Industrial); the current land use designation in the General Plan is also HI (Heavy Industrial). A review of the allowed uses for the HI zone (Table 2-6, Allowed Uses and Permit Requirements for Industrial Zoning Districts) does not identify a use which falls reasonably within the scope of the proposed project. It does appear to be clear that a Use Permit application will need to be prepared, submitted and approved in accordance with the required CEQA analysis.

4.3 Hazardous Waste Identification Number

This is a unique, site-specific number assigned to the program sponsor at the specific site address. The Department of Toxic Substances Control issues this number and requires that the local government sponsor obtain the number even if that facility is operated by a private contractor. Typically, HHW programs are issued a number that starts with CAH to designate an HHW facility and indicates in the state system that the facility is exempt from hazardous waste taxes and state fees.

An application to the Department of Toxic Substances Control (DTSC) will need to be prepared and submitted for the facility.

4.4 Permit-by-Rule (PBR)

This document identifies the HHW facility sponsor, operator, wastes accepted and not accepted, hours of operation, financial assurance for closure, facility description, and facility map. The local Certified Unified Program Agency (CUPA) must receive this PBR at least 45-days prior to the start of operations and their formal acknowledgement of the operations is required. A copy of the application is also submitted to the Department of Toxic Substances Control.

An application to the CUPA (with a copy to DTSC) will need to be prepared and submitted for the facility. The Hazardous Materials (HazMat) Unit has the responsibility for the County's Certified Unified Program Agency (CUPA) Programs, which includes the Town of Windsor.

4.5 Agreement with Property Owner

An agreement with the property owner acknowledging the use of the property for the HHW facility is required as part of the Permit-by-Rule submittal package.

Given current expectations that the County will be acquiring the property, this agreement would be moot.

4.6 Operations Plan

An Operations Plan is required of all HHW facilities and identifies specific procedures of managing the HHW and includes copies of relevant permit documents.

An Operations Plan will need to be prepared and submitted for the facility.

4.7 Emergency Services Notification

Local hospitals and emergency agencies are required to be notified of the HHW facility.

Proper notification to local hospitals and emergency agencies will be required for the facility.

4.8 Approval by Local Fire and Air District

If bulking of flammables will be conducted at the HHW facility, the approval of the local fire and air district is required. HHW facilities have not been issued air permits but some are provided a set of conditions (e.g. maximum amount of HHW managed) for compliance in order to not apply for a permit.

Permitting with the Bay Area Air Quality Management District and the Sonoma County Fire District will be required for the facility.

4.9 Hazardous Materials Business Plan

Facilities handling hazardous materials and/or hazardous waste, over a minimum quantity, must submit a Hazardous Materials Business Plan to the local Certified Unified Program Agency annually. The plan identified the owner and operator of the facility, hazardous materials/waste inventory, financial assurance, emergency procedures, training program, and aboveground tank information is applicable.

A Hazardous Materials Business Plan will need to developed in conjunction with the local CUPA (with a copy to DTSC via the CERES website) and submitted for the facility.

4.10 Engineer Containment Statement

A written statement is required to be signed by an independent, qualified professional engineer, registered in California, indicating that the containment system is suitably designed.

An engineering assessment of the containment system will need to be prepared and submitted for the facility.

4.11 Hazardous Waste Tank Assessment

Aboveground storage tanks for hazardous wastes are required to have an assessment prepare by an independent professional engineer or apply for an exemption. The assessment is required to be renewed every five years and the exemption has a threeyear renewal frequency.

An engineering assessment of the above ground storage tanks will need to be prepared and submitted for the facility.

4.12 Universal Waste Handler Registration

Persons handling universal waste electronics are required to submit an online registration to the Department of Toxic Substances Control.

An Universal Waste Handler Registration will need to be prepared and submitted to DTSC for the facility.

4.13 Local Government Proof of Designation for Covered Electronic Waste

Provides covered electronic waste collectors and recyclers to act on the jurisdiction's behalf to obtain payment from California and allows reduced record keeping.

A Local Government Proof of Designation will need to be developed for the facility.

4.14 Home-Generated Sharps Consolidation Point

Allows collection of home-generated sharps without obtaining a medical waste facility permit. Once collected these wastes are regulated as medical waste. The default storage time on-site is seven days but can be extended to 30 days or more if approved by the Local Medical Waste Management Agency.

An authorization request for use as a Home-Generated Sharps Consolidation Point will need to be prepared and submitted for the facility.

4.15 Injury Illness Prevention Plan

This plan required by CalOSHA contains policy and procedures for ensuring employee

safety.

An Injury and Illness Prevention Plan will need to be developed for the facility.

4.16 Air compressor permit

If an air compressor is used on site, CalOSHA requires submittal and approval of a permit to operate a pressure vessel. The compressor is needed if pneumatic tools are used in the facility.

Permitting of an air compressor, may be required with CalOSHA for the facility.

4.17 PaintCare Registration

Participation in the California paint stewardship program for management of architectural paint at no supply or disposal costs requires that the sponsoring jurisdiction, or its contractor, receive registration from the approved paint stewardship organization. Currently, California only has one stewardship organization, PaintCare. This program can also provide payment to the HHW program for reuse of paint or bulking of paint.

Registration with PaintCare will be required for the facility.

4.18 Spill Prevention Control and Countermeasure Plan

Facilities with more than 1,320 gallons of petroleum products must prepare a Spill Prevention Control and Countermeasure Plan (SPCC) identifying the types and amounts of petroleum products on site, emergency measures, responsible personnel, and training. Recent changes to this requirement do not require the use of a professional engineer to prepare this plan.

An SPCC Plan will need to developed in conjunction with the approval of the local CUPA and submitted for the facility.

4.19 Phase I Environmental Assessment

Within the first year of operations, a Phase I Environmental Assessment must be completed and evaluates for investigation for releases of hazardous waste at the HHW facility property. The property environmental assessment required for real estate transaction can suffice for the requirement.

APTIM has completed a Phase I Environmental Assessment for the facility.

4.20 Household Hazardous Waste Element

The Household Hazardous Waste Element is part of a jurisdiction's Integrated Waste Management Plan (AB 939) which specifies how a jurisdiction will manage HHW. This

Element is commonly updated at the time of a jurisdiction's annual review due every August 1st and will not require much effort.

Zero Waste Sonoma will need to amend the Household Hazardous Waste Element to add the facility.

4.21 County Hazardous Waste Management Plan

In 1986, California approved a requirement for County Hazardous Waste Management Plans, also referred to as Tanner Plans, required each County to develop siting criteria for hazardous waste facilities, including household hazardous waste facilities (Health and Safety Code 25199). Sonoma County's plan can be reviewed for the approved criteria although a local land use decision could satisfy this requirement with notification to Department of Toxic Substances Control and other affected state agencies.

Zero Waste Sonoma will need to assure the facility is developed in accordance County Household Hazardous Waste Plan criteria to assure the facility is in compliance.

4.22 Other Permit/Approval Considerations

Depending upon the site activities, other potential permit or approval consideration can include registration for management of treated wood waste, underground tank monitoring and permitting, and consideration within an industrial or municipal stormwater permit.

It is likely that a Stormwater Pollution Protection Plan may need to be developed for the site to be in compliance with state stormwater general permit regulations, particularly given its location direction adjacent to Pruitt Creek.

Registration with new extended producer responsibility organizations (for carpet, pharmaceuticals and sharps, mattresses, batteries and packaging may be required for the facility, depending on which material types are collected at the facility.

5 ESTIMATED COST

The Sweetser analysis provided cost estimates from existing HHW facilities that are appropriate to use for this conceptual level effort. A summary of costs from the Sweetser analysis are provided below in Table 2

Item	2018 Cost	Inflation Factor	2023 Estimate
Permitting	\$50,000		\$61,000
Construction	\$4.9 MM	1.22	\$6.0MM
Construction Management	\$414,000		\$505,000
Operations (Annual)	\$600,000		\$732,000

Table 2

Thos costs presented in the 2018 Sweetser analysis have been adjusted in Table 2 for the substantial inflation that has occurred in the past 5 years. The overall cost to permit and build the facility is on the order of \$6.5 to \$7.0 million.

Operational cost estimates for facility staff and HW disposal is on the order of \$750,000.

6 CONCLUSIONS

The proposed HHW facility on Pruitt Avenue in south Windsor is found to be feasible for HHW development on a conceptual level. The subject property has access to water and sewer utility service from the Town of Windsor. Electrical utility service exists on site through Pacific Gas and Electric. Roads in the industrial park the property is located in while private, have appropriate storm drainage.

Construction of a +10,000 square foot building is possible with the conceptual footprint presented in this study. Additional floor space for a ZWS office and board meeting space may be possible on this property with either a second story (would require ADA compliance) or expanding the building footprint on the proposed site layout.

The following concerns must be accounted for with continuing site development.

- Floodplain temporary storage. The property is within the Zone AE 100-yr floodplain as is much of the industrial park it's located in. The conceptual building pad as presented in the study is 2 feet above the calculated (by others) base flood elevation. As the site design advances, detailed hydraulic analysis will be required to design sufficient temporary floodplain storage into the site civil design such that construction of the facility does negatively impact the floodplain boundary for neighboring properties.
- 2. Per the findings of the Phase II ESA, installation of water wells or other disturbance of subsurface soils should be avoided. Earthwork construction will require a soil management plan for the new temporary floodplain storage basins as shown in the conceptual site plans to manage insitu soils with elevated levels of the constituents of concern found during the Phase II ESA.
- 3. The old Standard Avenue bridge across Pruitt Creek should not be used for public or other facility traffic without a review of its structural integrity.