

**From:** [Celest Wilder](#)  
**To:** [Scott Boettcher](#)  
**Cc:** [Patrick Skillings](#); [Anthony D. Guerrero, EIT](#); [Jill Anderson](#); [Lance Bunker](#)  
**Subject:** 2023-25 Local Project Proposal - Complete Final Submittal  
**Date:** Wednesday, August 3, 2022 3:14:41 PM  
**Attachments:** [2023.25 Local Projects - Chehalis River Basin Flood Authority - WWTP Demolition Grant Application with attachments.pdf](#)

---

Scott,

Attached you will find a complete application, along with supporting documents to request funding within the 2023-2025 biennium for the Flood Authority's local projects program. The City of Chehalis would like to thank you for presenting this funding opportunity. I look forward to tomorrow's meeting.

Have a great afternoon!

Celest Wilder, CFM  
Engineering Technician II  
City of Chehalis Public Works  
360-748-0238



## Part IB

### 2023-25 Local Projects Recruitment Process, Schedule

#### **FINAL Recruitment Form for Construction, Implementation Projects**

##### **Instructions:**

1. Please submit project requests (via this recruitment form) to [scottb@sbgh-partners.com](mailto:scottb@sbgh-partners.com) no later than 5:00 p.m., 8/03/2022.
2. Please submit one recruitment form for each project proposed, even past projects previously or partially funded.
3. Note: Sections III and IV [marked by "(\*\*)"] will be scored for review/evaluation. Sections I, II, and V will not be scored.
4. Note: Section V is necessary to help the Chehalis River Basin Flood Authority, Office of Chehalis Basin, and Chehalis Basin Board understand the scope and scale of future Local Projects.
5. See [https://www.ezview.wa.gov/site/alias\\_1492/37773/2023-25-local-projects-recruitment-process.aspx](https://www.ezview.wa.gov/site/alias_1492/37773/2023-25-local-projects-recruitment-process.aspx) for more information.

##### **Schedule:**

June 30, 2022	Flood Authority posts/distributes FINAL 2023-25 local project recruitment request.
August 3, 2022	Project sponsors submit proposals no later than 5:00 p.m., Wednesday, August 3, 2022, to Scott Boettcher, <a href="mailto:scottb@sbgh-partners.com">scottb@sbgh-partners.com</a> .
August 4, 2022 [CBB #1]	Chehalis Basin Board presented with local project proposals received.
September 15, 2022 [FA #1]	Flood Authority reviews/discusses local project proposals received and results of initial evaluation by Projects Committee and Review Team.
October 6, 2022 [CBB #2]	Chehalis Basin Board updated on the status of the 2023-25 local projects recruitment effort.
November 17, 2022 [FA #2]	Flood Authority approves ranked, prioritized funding recommendation to Chehalis Basin Board.
December 1, 2022 [CBB #3]	Chehalis Basin Board approves ranked, prioritized funding recommendation to Governor.

Section I General	
1. <b>Date:</b>	July 25, 2022
2. <b>Project Name and Project Phase/Stage:</b>	City of Chehalis, Derelict Wastewater Treatment Plant Demolition and Removal
3. <b>Project Location</b> -- Please provide location of project and latitude, longitude coordinates (e.g., 46.712222, -122.977811).	46.66211, -112.9833
4. <b>Project Manager/Contact</b> -- Please identify who will be responsible for overseeing, implementing the project on a day-to-day basis (i.e., name, organization, contact information).	Celest Wilder Engineer Technician II City of Chehalis Public Works 2007 NE Kresky Avenue Chehalis, WA 98531 <a href="mailto:cwilder@chehalis.wa.us">cwilder@chehalis.wa.us</a> 360-748-0238
5. <b>Project Sponsor and Key Partners</b> -- Please identify project sponsor and key partners who will assist in project delivery, implementation.	Sponsor: City of Chehalis  Partner: Skillings, Inc.

Section II Description, Timing and Cost	
6. <b>Project Description</b> -- Please describe the project, what is intended to be accomplished, flood hazard reduction benefits to be accrued to whom and when. Please identify what phase/stage of the project funding is sought (e.g., construction/implementation phase/stage). Please identify any local or state funding previously secured for this project.	<p>The Chehalis Wastewater Treatment Facility, located at 1191 NW Shoreline Drive, within the Chehalis city limits, is a 9.32-acre site that currently houses the now derelict, former wastewater treatment facility (POTW).</p> <p>The city is currently developing a 30-year flood storage mitigation and wildlife enhancement plan. The former wastewater treatment plant, on the shore of the Chehalis River is centrally located at the heart of this plan. The city is requesting funds to move forward concurrently, with restoring the former plant to its pre-developed state while developing the 30-year plan.</p> <p>Phase one, or the first step to restoring this site to its pre-development condition is to remove all current hardscapes.</p> <p>The aging infrastructure located throughout the site has not been manned or maintained, which creates a wide variety of life/safety issues. Due to declining</p>

	<p>conditions, the potential for local and basin wide contamination during a flood event is increased. These risk factors, coupled with apparent signs of vandalism and illegal occupation, have created an unnecessary liability for the city.</p> <p>Future phases can include, but aren't limited to, compensatory excavation, increased flood storage within the regulatory floodway, wetland banking possibilities, riverine wetland restoration, and wildlife enhancement, all of which contribute to the overall health of the Chehalis River.</p>
7. <b>Project Timeline</b> -- Please describe the timeline and phases/stages for completing the overall project and the timeline for completing the phase/stage to be funded by 2023-25 funding.	<p>Phase one will occur the summer of 2023. This includes the demolition and removal of all existing derelict wastewater facility hardscapes, post demolition ground stabilization measures, and associated permitting requirements.</p> <p>Future phases incorporated as part of the 30-year plan will be implemented dependent upon available funding.</p>
8. <b>Project Cost and Funding</b> -- What is the cost of the overall project (or anticipated cost)? What is the cost of the phase/stage to be funded by 2023-25 funding? What are the on-going maintenance and operation requirements and costs? Who will cover on-going maintenance and operation requirements and costs?	<p>All funding will be in the form of grants. Agencies in line with this type of project are the Chehalis Flood Authority, Recreation Conservation Office, Salmon Safe, and others.</p> <p>It is the intention of the City of Chehalis to fund Phase one using this grant from the Chehalis Flood Authority. Future phases of implementing the 30-year plan will be completed as grant funding becomes available.</p> <p>As future phases are completed where habitat restoration requires monitoring, one-, three-, five-, and ten-year plans will be implemented to ensure restoration success where applicable.</p> <p>Following site restoration, maintenance will be minimal as the plan is to restore the area to its pre-developed state.</p>
9. <b>Other Funding</b> -- Please describe other funding sources and partners that have already contributed (or could contribute in the future) to this project and for what phase/stage.	<p>Additional funding in the form of grants will be applied for through RCO, Department of Ecology, Salmon Safe, and others.</p>



Section III (**) Completion, Doability, Alternatives, and Impacts	
10. <b>Project Completion</b> -- Does the funding requested complete, substantially complete, or continue a project already started? If so, please explain.	<p>The project has not been started and does not complete any portion of a project that has already begun.</p> <p>The project will kick off implementation of the city's 30-year flood storage mitigation and habitat restoration plan, who's development is being run concurrently with this project.</p>
11. <b>Project Doable</b> -- Can this project or the phase/stage for which funding is sought be completed by June 30, 2025? Please describe any circumstances with potential to impact the project's doability or timeline (e.g., permitting or regulatory unknowns, lack of availability of other funding resources, etc.). Please describe any advance coordination or vetting with agencies, tribes, other entities, etc. and the outcomes of that effort.	<p>Yes, this project will be completed prior to June 30, 2025, utilizing funding from this grant opportunity.</p> <p>Excavation quantities are assumed based on aerial imagery review. An assumed footing depth of 4-feet was used to account for sub-surface hardscape material. If associated underground infrastructure is greater than anticipated, this could create an unforeseen increased cost. A 10% contingency has been incorporated into the budget to mitigate for unforeseen expenses.</p> <p>Future phases will be implemented upon completion of this phase one project and of the 30-year plan.</p>
12. <b>Project Alternatives</b> -- Please describe alternatives to the project that were considered (including doing nothing), and the rationale for selecting the project described, proposed here.	<p>Several alternatives have been viewed regarding the removal of the derelict wastewater treatment plant.</p> <p>Do Nothing: This approach would leave aged infrastructure to further deteriorate which would, in turn, create an even larger public health/safety issue than what exists currently. This approach would also leave existing structures in both the Special Flood Hazard Area, and the Regulatory Floodway. To restore the area to its pre-developed state, allowing for greater flood storage and riparian habitat, this option was determined not desirable.</p> <p>Restore the entire sub-basin and improve a portion of the land for passive park and interpretive, educational trail systems, from US Highway 6 to the southern border of the golf course: This option proved itself not optimal as the scope was unrealistic given the time frame for completion, more than 100 residents would be relocated, and compliance with the city's zero rise policy could not be attained.</p>

	<p>Reduced sub basin scope:</p> <p>This option utilized many of the same principles in the larger basin restoration plan but was reduced to include two smaller sub-basins rather than one large basin. This option proved itself not desirable when zero rise regulations still could not be met.</p>
<p>13. <b>Project Impacts Avoided, Mitigated</b> -- Please identify how project impacts will be avoided and mitigated, and if that mitigation will be accomplished by June 30, 2025?</p>	<p>If funded by this grant, phase one will be completed by June 30, 2025, and include removal of all existing infrastructure and hardscapes at the derelict wastewater treatment plant. The existing buildings and equipment negatively impact floodwater storage and conveyance and provide sources of contamination during flood events. Removal of these structures will mitigate environmental impacts on the Chehalis River, its riparian corridor, and neighboring properties when flood waters pass through.</p>

<p><b>Section IV (**)</b></p> <p><b>Benefits Stated and Quantified</b></p>	
<p>14. <b>Emergency Response Benefits</b> -- Please describe (and quantify) how this project enhances emergency response in a flood emergency (e.g., does it keep critical access roads and transportation facilities open/functional, does it enable easy movement of cattle, equipment and farm chemicals out of harm's way, is it part of a larger hazard mitigation plan, etc.).</p>	<p>In phase one of this project, no roads or transportation facilities will be negatively impacted. Ultimately, with infrastructure removal resulting in greater flood storage area, floodwater inundation on surrounding local-access roads will be reduced, allowing for greater ease in first responder response times, and keeping hobby farm livestock in the area out of harm's way.</p>
<p>15. <b>Essential Infrastructure Protection Benefits</b> -- Please describe (and quantify) how this project protects essential infrastructure and the risks or consequences of not acting this funding cycle.</p>	<p>The region surrounding the project site is home to residential, commercial, agricultural, and recreational assets and is adjacent to Interstate 5. Phase one removal of the existing derelict wastewater treatment facility will alleviate stressors associated with the 1% flood and with lesser stormwater events. The abandoned structures will continue to degrade and as a result, the potential for environmental hazards will rise. Expeditious demolition of the derelict facility will prevent contamination of residual sewage in abandoned structures and infrastructure and will increase flood storage for a portion of the basin that regularly experiences high water events.</p>

<p><b>16. Public Health, Safety and Welfare Benefits --</b> Please describe (and quantify) how this project protects public health, safety, and welfare.</p>	<p>Public health and safety are the overarching long-term goals of this project.</p> <p>In phase one, funded by this grant opportunity, removing the existing infrastructure and derelict facility protects public health, safety, and welfare in many facets.</p> <p>The currently unoccupied and unmaintained facility will no longer present itself to the homeless population as an attractive nuisance, in the form of illegal occupation and vandalism. The structures are no longer structurally sound, they contain residual sewage, and obstruct the natural flow of water to and through the Chehalis River, and its riparian and wetland habitats.</p> <p>Future phases will only fortify the restorative health actions being taken on this reach of the Chehalis River.</p>
<p><b>17. Residential, Commercial and/or Agricultural Protection Benefits --</b> Please describe (and quantify) how this project protects residential communities, commercial and/or agricultural interests and benefits of acting (or consequences of not acting) this funding cycle. Consider factors like number of structures and people at risk, historic frequency of flood damage, magnitude of benefit for the cost, etc.</p>	<p>This project assists in protecting the interests of surrounding residential, commercial, agricultural, and industrial uses. Annually, an average of 1-2 flood events occur in this area. Additional flood storage will aid in the preventing excess stormwater runoff accumulation. This will benefit private landowners, residential areas, commercial retail centers, agricultural fields, and nearby industry.</p>
<p><b>18. Habitat Benefits –</b> Please describe (and quantify) how this project benefits or improves existing or future habitat conditions.</p>	<p>This project benefits habitat on several levels. By removing man-made hardscapes and returning the land to its pre-developed state, restoration efforts will result in increased flood storage, increased stormwater infiltration and treatment, and decreased potential for flood or stormwater contamination. Additionally, the opportunity to restore riparian vegetation will assist in clean water with lower temperatures and enhanced fish habitat.</p>
<p><b>19. Costs, Benefits, Impacts –</b> Please describe (and quantify) anticipated:</p> <p>(a) <u>Costs</u> of this phase/stage of the project if funded, and if not funded? This would include any costs (beyond direct cost of the project) that might be incurred or avoided as</p>	<p>(a) A cost estimate has been prepared by Skillings, Inc. in the funding amount of \$4,962,977.33. If not funded, the cost is immeasurable. Greater liability in the form of further dilapidation, attractive nuisance creation, increased risk of damage and contamination during a flood event, and potential water quality degradation will all be</p>

<p>a result of the project being funded (or not funded) and when.</p> <p>(b) <u>Benefits</u> of this phase/stage of the project if funded and when those benefits would be realized?</p> <p>(c) <u>Impacts</u> of this phase/stage of the project if funded, if not funded, and when those impacts would occur.</p>	<p>created as a direct result of not funding this project.</p> <p>(b) Completion of this project will benefit the Chehalis River and its surrounding area in a multitude of ways. Pollutant sources will be removed from the floodplain, there will be a greater factor of safety where residents and their properties are concerned in the event of a flood, and the area will not present itself as an attractive place for vandalism and illegal habitation.</p> <p>(c) We do not foresee any immediate or long term negative impacts if the project is funded. If not funded, impacts to water quality, floodplain functionality, and quality of life for residents both in the immediate vicinity and basin-wide, could be potentially devastating.</p>
<p>20. <b>Other Project Benefits</b> -- Please describe (and quantify) any other project benefits not already discussed. This could include how this project compliments, leverages, or implements another project or planning process already underway.</p>	<p>This project will act as a kick-off to the proposed 30-year flood storage master plan which is being developed concurrently with this phase one demolition proposal.</p>
<p>21. <b>Anything Else</b> -- Please offer any additional information (e.g., links, photos, maps, video, drawings, drone, etc.) that would help to better understand the scope, timing, and benefits of this project.</p>	<p>Attachment A: Vicinity Map Attachment B: NRCS Soils Mapping Attachment C: FEMA FIRM Panel Attachment D: Well Logs for the Surrounding Area Attachment E: National Wetland Maps and Supporting Data Attachment F: Priority Habitats and Species List Attachment G: Demolition Plan, Calculations, and Preliminary Phase 1 Estimate Attachment H: Site Photos</p>

<p><b>Section V</b> <b>Local Construction, Implementation Projects Beyond 2023-25</b></p>	
<p>22. <b>Project Name and Project Phases/Stage:</b></p>	<p>City of Chehalis Flood Protection and Wildlife Enhancement Project</p>
<p>23. <b>Project Location</b> -- Please provide location of project and latitude, longitude coordinates (e.g., 46.712222, -122.977811).</p>	<p>The project is located at: 46.662221, -122.9833  1191 NW Shoreline Drive Chehalis, WA 98532</p>

<p>24. <b>Project Sponsor and Key Partners</b> -- Please identify who would be sponsoring the project and key partners who would assist with project delivery, implementation.</p>	<p>Project Sponsor, The City of Chehalis</p> <p>Project Partner, Skillings, Inc.</p>
<p>25. <b>Project Description</b> -- Please describe the project, what is intended to be accomplished, the flood hazard reduction benefits to be accrued and to who and when. Please identify what phase/stage of the project funding would be sought (e.g., construction/implementation phase/stage).</p>	<p>The Chehalis Wastewater Treatment Facility, located at 1191 NW Shoreline Drive, within the Chehalis city limits, is a 9.32-acre site that currently houses the now derelict, former wastewater treatment facility (POTW).</p> <p>The city is currently developing a 30-year flood storage mitigation and wildlife enhancement plan. The former wastewater treatment plant, on the shore of the Chehalis River is centrally located at the heart of this plan. The city is requesting funds to move forward concurrently, with restoring the former plant to its pre-developed state while developing the 30-year plan.</p> <p>Upon completion of phase one, site planning will continue beyond the 2023-25 biennium to include in the short term, complete site restoration by removing imported unsuitable fill and implementing wetland and riparian habitat restoration plans.</p> <p>In the long term, as part of the 30-year plan, expanding the area beyond the 9.32-acre site will be implemented.</p>
<p>26. <b>Costs</b> -- Please describe (quantify) anticipated project costs.</p>	<p>Costs for future project phases will be assessed as they are implemented. Funding will be sought as it becomes available. The sources of these funds will come in the form of grants from the Chehalis Flood Authority, Recreation Conservation Office, Salmon Safe, and others.</p>
<p>27. <b>Benefits</b> -- Please describe (quantify) anticipated project benefits.</p>	<p>Future project phases implemented as part of the 30-year plan will expand on the benefits implemented with phase one. Emergency response times will continue to decrease with increased accessibility. Essential infrastructure will become safer as flood levels decrease with the expansion of additional flood storage areas. Public health, safety, and welfare will be elevated as flood level protections increase, in the same manner that residential, commercial, agricultural, and industrial</p>

	land uses will benefit. Habitat benefits will increase as future project phases are implemented by expanding the reach of riparian habitat restoration efforts.
28. <b>Impacts</b> -- Please describe (quantify) anticipated project impacts.	

## **ATTACHMENT A**

---

Vicinity Map





**PARCEL #**  
**005794001000**  
**9.29 ACRES**

**PARCEL #**  
**005790001000**  
**0.69 ACRES**



## **SEWAGE TREATMENT PLANT VICINITY MAP**



## **ATTACHMENT B**

---

NRCS Soils Mapping

# Soil Map—Lewis County Area, Washington



Map Scale: 1:12,700 if printed on A portrait (8.5" x 11") sheet.

0 150 300 600 900 Meters

0 500 1000 2000 3000 Feet

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 10N WGS84




**Natural Resources  
Conservation Service**

Web Soil Survey  
National Cooperative Soil Survey

8/4/2016  
Page 1 of 3

## MAP LEGEND

### Area of Interest (AOI)

 Area of Interest (AOI)

### Soils

 Soil Map Unit Polygons

 Soil Map Unit Lines

 Soil Map Unit Points

### Special Point Features



Blowout



Borrow Pit



Clay Spot



Closed Depression



Gravel Pit



Gravelly Spot



Landfill



Lava Flow



Marsh or swamp



Mine or Quarry



Miscellaneous Water



Perennial Water



Rock Outcrop



Saline Spot



Sandy Spot



Severely Eroded Spot



Sinkhole



Slide or Slip



Sodic Spot



Spoil Area



Stony Spot



Very Stony Spot



Wet Spot



Other



Special Line Features

### Water Features



Streams and Canals

### Transportation



Rails



Interstate Highways



US Routes



Major Roads



Local Roads

### Background



Aerial Photography

## MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:24,000.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service

Web Soil Survey URL: <http://websoilsurvey.nrcs.usda.gov>

Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Lewis County Area, Washington

Survey Area Data: Version 13, Sep 15, 2015

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Jul 8, 2010—Jul 9, 2010

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

## Map Unit Legend

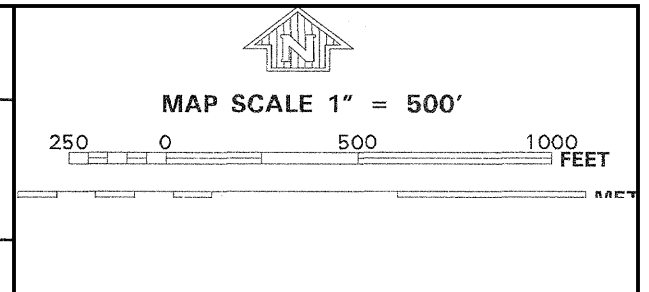
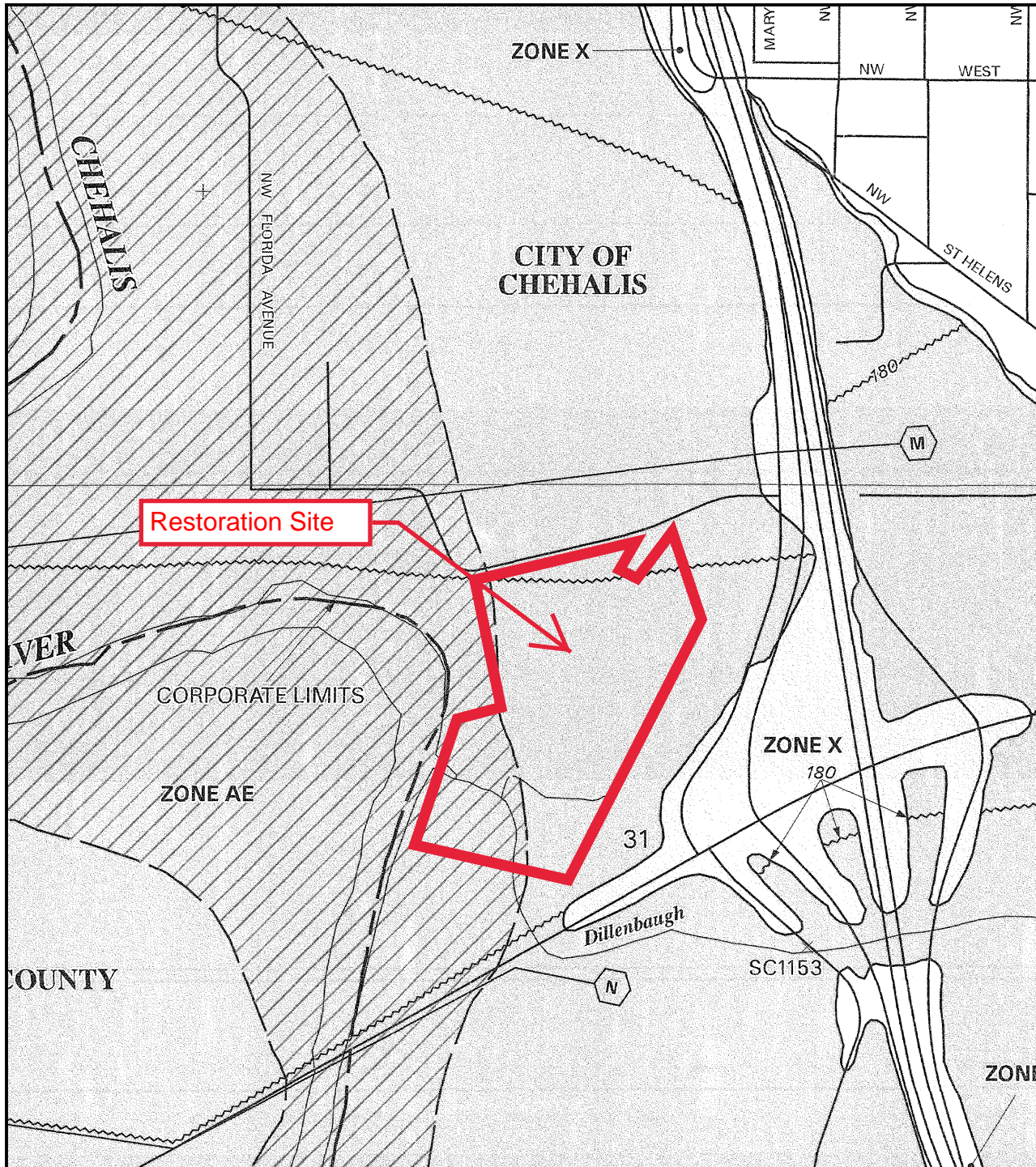
Lewis County Area, Washington (WA641)			
Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
1	Alvor silty clay loam	4.4	0.6%
48	Chehalis silty clay	292.0	42.7%
61	Cloquato silt loam	29.9	4.4%
118	Lacamas silt loam, 0 to 3 percent slopes	48.5	7.1%
131	Melbourne loam, 8 to 15 percent slopes	0.9	0.1%
148	Newberg fine sandy loam	80.0	11.7%
172	Reed silty clay loam	63.6	9.3%
173	Reed silty clay loam, channeled	31.5	4.6%
187	Salkum silty clay loam, 0 to 5 percent slopes	54.0	7.9%
247	Xerorthents, spoils	33.9	5.0%
W	Water	45.0	6.6%
<b>Totals for Area of Interest</b>		<b>683.7</b>	<b>100.0%</b>

## **ATTACHMENT C**

---

FEMA Flood Insurance Rate Map





PANEL 1361C

# **FIRM** **FLOOD INSURANCE RATE MAP**

CITY OF  
CHEHALIS,  
WASHINGTON

LEWIS COUNTY

**PANEL 1361 OF 2500**

(SEE MAP INDEX FOR FIRM PANEL LAYOUT)

CONTAINS:

COMMUNITY NUMBER PANEL SUFFIX

CHEHALIS, CITY OF 530104 1361 C

Notice to User: The Map Number shown below should be used when placing map orders; the Community Number shown above should be used on insurance applications for the subject community.



**MAP NUMBER**  
**5301041361C**

**MAP REVISED:**  
**JULY 17, 2006**

Federal Emergency Management Agency

This is an official copy of a portion of the above referenced flood map. It was extracted using F-MIT On-Line. This map does not reflect changes or amendments which may have been made subsequent to the date on the title block. For the latest product information about National Flood Insurance Program flood maps check the FEMA Flood Map Store at [www.msc.fema.gov](http://www.msc.fema.gov)

## **ATTACHMENT D**

---

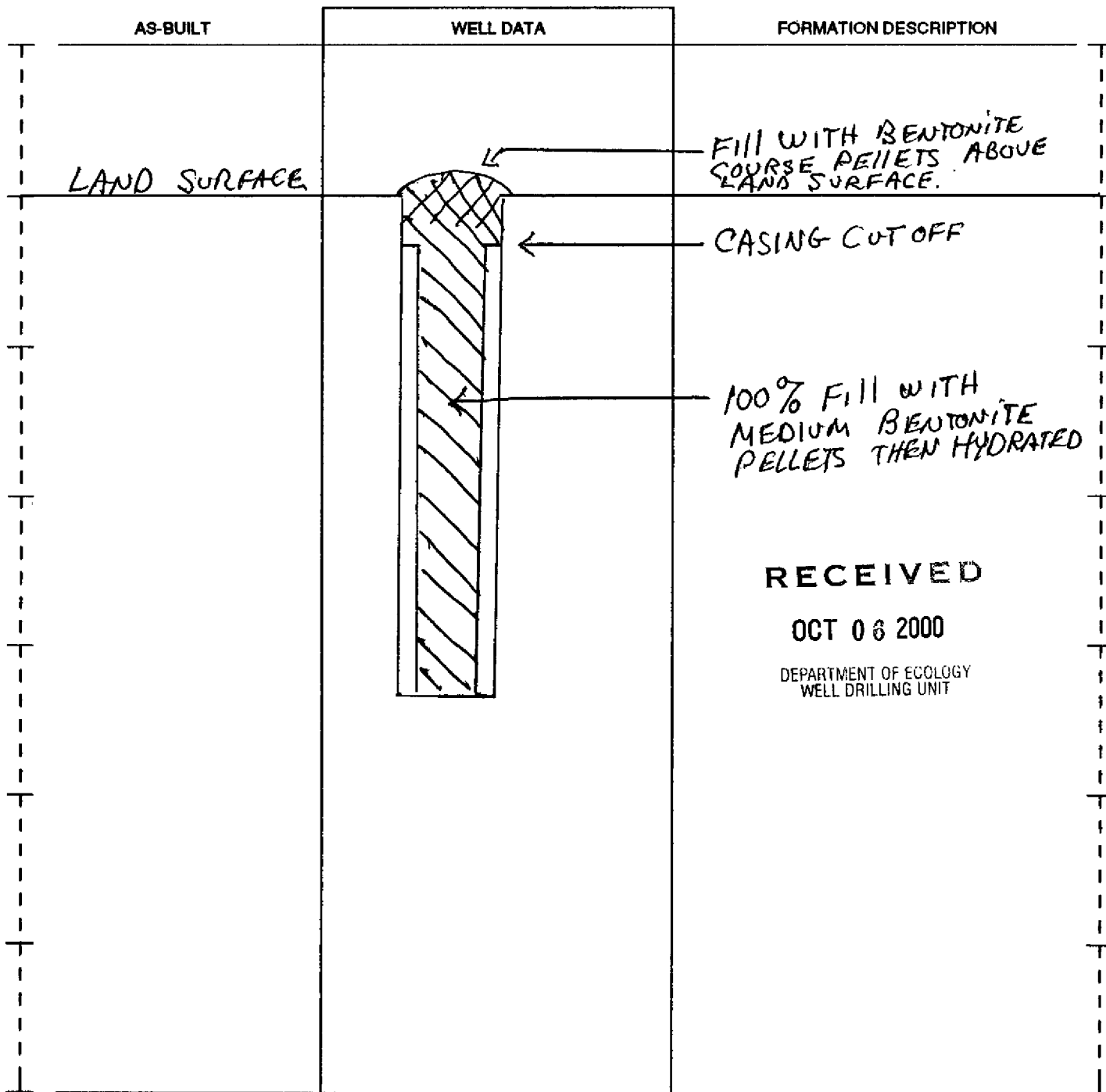
Well Logs for the Surrounding Area

# RESOURCE PROTECTION WELL REPORT

START CARD NO. A47379

PROJECT NAME: AMERICAN CROSSARM & CONDUIT <sup>CLEAN UP</sup>  
 WELL IDENTIFICATION NO. MW-22  
 DRILLING METHOD: ABANDONMENT  
 DRILLER: BERNARD STRONG (2362)  
 FIRM: WA. ST. DEPT OF ECOLOGY  
 SIGNATURE: Bernard N. Strong  
 CONSULTING FIRM: DEPT OF ECOLOGY  
 REPRESENTATIVE: PAM MARTI

COUNTY: LEWIS  
 LOCATION: SE 1/4 NE 1/4 Sec 31 Twn 14 R 2 W  
 STREET ADDRESS OF WELL: —  
 WATER LEVEL ELEVATION: 171.76 FOOT  
 GROUND SURFACE ELEVATION: 178.86 FOOT  
 INSTALLED: 10-6-2000  
 DEVELOPED: —



RECEIVED

OCT 06 2000

DEPARTMENT OF ECOLOGY  
WELL DRILLING UNIT

SCALE: 1" = 10 FOOT

PAGE 1 OF 2



## RESOURCE PROTECTION WELL REPORT

Notice of Intent No.

E005519

(SUBMIT ONE WELL REPORT PER WELL INSTALLED)

Construction/Decommission ("x" in circle)

☒ Construction☐ Decommission Original Construction Notice

of Intent Number

195077

Property Owner Billie J. Wiley

Unique Ecology Well ID Tag No. 1N/4

Consulting Firm Steven Environmental

Driller or Trainee Name Don Haraden

Driller or Trainee Signature Don

Driller or Trainee License No. 2802

If trainee, licensed driller's  
Signature and License no.

Type of Well ("x" in circle)

☒ Resource Protection☐ Geotech Soil Boring

Site Address 0 Main St.

City Chehalis County: Lewis

Location NE 1/4-1/4 HE 1/4 Sec 31 Twn 14N R 2 EWN or one

Lat/Long (s, t, r still REQUIRED) Lat Deg Lat Min/Sec Long Deg Long Min/Sec

Tax Parcel No.

Cased or Uncased Diameter 2" Static Level 5'

Work/Decommission Start Date 1-25-06

Work/Decommission Completed Date 1-25-06

Construction/Design

Well Data

Formation Description

Soils sampled continuously  
0-12' bgsWater sample collected 4-7' bgs  
Through temporary screen.All tooling removed from  
boring upon completion of  
sampling.Boring backfilled w/ broken  
chips

0-12' S. It Sand &amp; gravel

1 H<sub>2</sub>O @ 5' bgs06 MAY 12 AB:36  
DEPT. OF ECOLOGY  
FISCAL & BUDGET

RECEIVED

MAY 12 2006

DEPARTMENT OF ECOLOGY  
WELL DRILLING UNIT

Scale 1"= 4'

Page 1 of 5

ECY 050-12 (Rev 2/01)

# WATER WELL REPORT

Application No. 2-26055

STATE OF WASHINGTON

Permit No. 2-26055

(1) OWNER: Name: Chehalis School District Address: 16th & Wilson Streets, Chehalis WA 98532

(2) LOCATION OF WELL: County Lewis 1/4 Sec. 31 T. 14 N. R. 2W W.M.

aring and distance from section or subdivision corner

(3) PROPOSED USE: Domestic ☐ Industrial ☐ Municipal ☐  
Irrigation ☒ Test Well ☐ Other ☐

(4) TYPE OF WORK: Owner's number of well (if more than one)....  
New well ☒ Method: Dug ☐ Bored ☐  
Deepened ☐ Cable ☐ Driven ☐  
Reconditioned ☐ Rotary ☒ Jetted ☐

(5) DIMENSIONS: Diameter of well 6 inches.  
Drilled 48 ft. Depth of completed well 48 ft.

(6) CONSTRUCTION DETAILS:  
Casing installed: 6 5/8 Diam. from 0 ft. to 29 ft.  
Threaded ☐ Diam. from     ft. to     ft.  
Welded ☒ Diam. from     ft. to     ft.

Perforations: Yes ☐ No ☒  
Type of perforator used      
SIZE of perforations     in. by     in.  
perforations from     ft. to     ft.  
perforations from     ft. to     ft.  
perforations from     ft. to     ft.

Screens: Yes ☒ No ☐  
Manufacturer's Name Johnson  
Type Tele W.W. S.S. Model No.      
Diam. 6 Slot size     from     ft. to     ft.  
Diam.     Slot size     from     ft. to     ft.

Gravel packed: Yes ☐ No ☐ Size of gravel:      
Gravel placed from     ft. to     ft.

Surface seal: Yes ☒ No ☐ To what depth? 18 ft.  
Material used in seal Bentonite  
Did any strata contain unuseable water? Yes ☐ No ☒  
Type of water?     Depth of strata      
Method of sealing strata off    

(7) PUMP: Manufacturer's Name Grundfos  
Type: Sub. HP 5

(8) WATER LEVELS: Land-surface elevation above mean sea level     ft.  
Static level 11' 6" ft. below top of well Date      
Artesian pressure     lbs. per square inch Date      
Artesian water is controlled by     (Cap, valve, etc.)

(9) WELL TESTS: Drawdown is amount water level is lowered below static level  
Was a pump test made? Yes ☒ No ☐ If yes, by whom? Driller  
Yield: 50 gal./min. with 14.75 ft. drawdown after 8 hrs.

Recovery data (time taken as zero when pump turned off) (water level measured from well top to water level)

Time	Water Level	Time	Water Level	Time	Water Level
0	24'	5	14' 3"	20	12' 11"
2	23' 2"	10	13' 4"	30	12' 8"
4	16'	15	12' 11"	60	12' 5"

Date of test 7-19-82  
Water     gal./min. with     ft. drawdown after     hrs.  
Artesian     g.p.m. Date      
Temperature of water     Was a chemical analysis made? Yes ☐ No ☒

## (10) WELL LOG:

Formation: Describe by color, character, size of material and structure, and show thickness of aquifers and the kind and nature of the material in each stratum penetrated, with at least one entry for each change of formation.

MATERIAL	FROM	TO
Clay soil	0	1
clay brn	1	8
clay blue	8	16
clay and rocks brown	16	25
clay & gravel, sand brown	25	48
hard blue clay	48	-

Water bearing below 16'

RECEIVED

OCT 11 1982

DEPARTMENT OF ECOLOGY  
SOUTHWEST REGIONAL OFFICE

Work started 7-14 19 82 Completed 7-20 19 82

## WELL DRILLER'S STATEMENT:

This well was drilled under my jurisdiction and this report is true to the best of my knowledge and belief.

NAME King Brothers Drilling Inc.  
(Person, firm, or corporation) (Type or print)

Address 2434 Seward, Centralia, WA 98531

(Signed) Colum C. King  
(Well Driller)

License No. 0243 Date 9-2 19 82

(USE ADDITIONAL SHEETS IF NECESSARY)



## **ATTACHMENT E**

---

National Wetland Maps and Supporting Data

## National Wetland Inventory Map and Supporting Data





U.S. Fish & Wildlife Service

## National Wetlands Inventory

Ecological Services

Enter Classification code:  (Example: **L1UB1Hx**)

For geographically specific information\* (optional), please enter a State code:  (Example: **TX** for Texas)

DECODE

Description for code **PABH** :

**P** System **PALUSTRINE**: The Palustrine System includes all nontidal wetlands dominated by trees, shrubs, emergents, mosses or lichens, and all such wetlands that occur in tidal areas where salinity due to ocean derived salts is below 0.5 ppt. Wetlands lacking such vegetation are also included if they exhibit all of the following characteristics: 1. are less than 8 hectares ( 20 acres ); 2. do not have an active wave-formed or bedrock shoreline feature; 3. have at low water a depth less than 2 meters (6.6 feet) in the deepest part of the basin; 4. have a salinity due to ocean-derived salts of less than 0.5 ppt.

Subsystem :

**AB** Class **AQUATIC BED**: Includes wetlands and deepwater habitats dominated by plants that grow principally on or below the surface of the water for most of the growing season in most years.

Subclass :

Modifier(s):

**H** WATER REGIME **Permanently Flooded**: Water covers the land surface throughout the year in all years.





U.S. Fish & Wildlife Service

## National Wetlands Inventory

Ecological Services

Enter Classification code:  (Example: **L1UB1Hx**)

For geographically specific information\* (optional), please enter a State code:  (Example: **TX** for Texas)

DECODE

Description for code **PSSC** :

**P** System **PALUSTRINE**: The Palustrine System includes all nontidal wetlands dominated by trees, shrubs, emergents, mosses or lichens, and all such wetlands that occur in tidal areas where salinity due to ocean derived salts is below 0.5 ppt. Wetlands lacking such vegetation are also included if they exhibit all of the following characteristics: 1. are less than 8 hectares ( 20 acres ); 2. do not have an active wave-formed or bedrock shoreline feature; 3. have at low water a depth less than 2 meters (6.6 feet) in the deepest part of the basin; 4. have a salinity due to ocean-derived salts of less than 0.5 ppt.

Subsystem :

**SS** Class **SCRUB-SHRUB**: Includes areas dominated by woody vegetation less than 6 m (20 feet) tall. The species include true shrubs, young trees (saplings), and trees or shrubs that are small or stunted because of environmental conditions.

Subclass :

Modifier(s):

**C** WATER REGIME **Seasonally Flooded**: Surface water is present for extended periods especially early in the growing season, but is absent by the end of the growing season in most years. The water table after flooding ceases is variable, extending from saturated to the surface to a water table well below the ground surface.



U.S. Fish & Wildlife Service

## National Wetlands Inventory

Ecological Services

Enter Classification code:  (Example: **L1UB1Hx**)

For geographically specific information\* (optional), please enter a State code:  (Example: **TX** for Texas)

DECODE

Description for code **R3UBH** :

- R** System **RIVERINE**: The Riverine System includes all wetlands and deepwater habitats contained in natural or artificial channels periodically or continuously containing flowing water or which forms a connecting link between the two bodies of standing water. Upland islands or Palustrine wetlands may occur in the channel, but they are not part of the Riverine System.
- 3** Subsystem **UPPER PERENNIAL**: This Subsystem is characterized by a high gradient and fast water velocity. There is no tidal influence, and some water flows throughout the year. This substrate consists of rock, cobbles, or gravel with occasional patches of sand. There is very little floodplain development.
- UB** Class **UNCONSOLIDATED BOTTOM**: Includes all wetlands and deepwater habitats with at least 25% cover of particles smaller than stones (less than 6-7 cm), and a vegetative cover less than 30%.
- Subclass :

Modifier(s):

**H** WATER REGIME **Permanently Flooded**: Water covers the land surface throughout the year in all years.



## **ATTACHMENT F**

---

### Priority Habitats and Species List



# WASHINGTON DEPARTMENT OF FISH AND WILDLIFE

## PRIORITY HABITATS AND SPECIES REPORT

SOURCE DATASET: PHSPublic  
REPORT DATE: 08/10/2016 2.31

Query ID: P160810143109

Common Name Scientific Name Notes	Site Name Source Dataset Source Record Source Date	Priority Area Occurrence Type More Information (URL) Mgmt Recommendations	Accuracy	Federal Status State Status PHS Listing Status	Sensitive Data Resolution	Source Entity Geometry Type
Cavity-nesting Ducks	CHEHALIS RIVER & PHSREGION 905309	Breeding Area Breeding occurrence  <a href="http://wdfw.wa.gov/publications/pub.php?">http://wdfw.wa.gov/publications/pub.php?</a>	1/4 mile (Quarter	N/A N/A  PHS LISTED	N AS MAPPED	WA Dept. of Fish and Wildlife Polygons
Chinook Oncorhynchus tshawytscha	Chehalis River SASI 1435	Occurrence Occurrence <a href="http://wdfw.wa.gov/wlm/diversty/soc/soc.htm">http://wdfw.wa.gov/wlm/diversty/soc/soc.htm</a> <a href="http://wdfw.wa.gov/publications/pub.php?">http://wdfw.wa.gov/publications/pub.php?</a>	NA	Not Warranted N/A  PHS Listed	N AS MAPPED	WDFW Fish Program Lines
Chinook Oncorhynchus tshawytscha	Chehalis River SASI 1432	Occurrence Occurrence <a href="http://wdfw.wa.gov/wlm/diversty/soc/soc.htm">http://wdfw.wa.gov/wlm/diversty/soc/soc.htm</a> <a href="http://wdfw.wa.gov/publications/pub.php?">http://wdfw.wa.gov/publications/pub.php?</a>	NA	Not Warranted N/A  PHS Listed	N AS MAPPED	WDFW Fish Program Lines
Coho Oncorhynchus kisutch	Dillenbaugh Creek SWIFD 56269	Occurrence/Migration Occurrence/migration <a href="http://wdfw.wa.gov/wlm/diversty/soc/soc.htm">http://wdfw.wa.gov/wlm/diversty/soc/soc.htm</a> <a href="http://wdfw.wa.gov/publications/pub.php?">http://wdfw.wa.gov/publications/pub.php?</a>	NA	N/A N/A  PHS LISTED	N AS MAPPED	Lines
Coho Oncorhynchus kisutch	Chehalis River SWIFD 63843	Occurrence/Migration Occurrence/migration <a href="http://wdfw.wa.gov/wlm/diversty/soc/soc.htm">http://wdfw.wa.gov/wlm/diversty/soc/soc.htm</a> <a href="http://wdfw.wa.gov/publications/pub.php?">http://wdfw.wa.gov/publications/pub.php?</a>	NA	N/A N/A  PHS LISTED	N AS MAPPED	Lines
Coho Oncorhynchus kisutch	Dillenbaugh Creek SASI 3605	Occurrence Occurrence <a href="http://wdfw.wa.gov/wlm/diversty/soc/soc.htm">http://wdfw.wa.gov/wlm/diversty/soc/soc.htm</a> <a href="http://wdfw.wa.gov/publications/pub.php?">http://wdfw.wa.gov/publications/pub.php?</a>	NA	Candidate N/A  PHS Listed	N AS MAPPED	WDFW Fish Program Lines
Coho Oncorhynchus kisutch	Chehalis River SASI 3605	Occurrence Occurrence <a href="http://wdfw.wa.gov/wlm/diversty/soc/soc.htm">http://wdfw.wa.gov/wlm/diversty/soc/soc.htm</a> <a href="http://wdfw.wa.gov/publications/pub.php?">http://wdfw.wa.gov/publications/pub.php?</a>	NA	Candidate N/A  PHS Listed	N AS MAPPED	WDFW Fish Program Lines

Common Name Scientific Name Notes	Site Name Source Dataset Source Record Source Date	Priority Area Occurrence Type More Information (URL) Mgmt Recommendations	Accuracy	Federal Status State Status PHS Listing Status	Sensitive Data Resolution	Source Entity Geometry Type
Cutthroat Oncorhynchus clarki	Dillenbaugh Creek SASI 7580	Occurrence Occurrence <a href="http://wdfw.wa.gov/wlm/diversty/soc/soc.htm">http://wdfw.wa.gov/wlm/diversty/soc/soc.htm</a> <a href="http://wdfw.wa.gov/publications/pub.php?">http://wdfw.wa.gov/publications/pub.php?</a>	NA	Candidate N/A PHS Listed	N AS MAPPED	WDFW Fish Program Lines
Cutthroat Oncorhynchus clarki	Chehalis River SASI 7580	Occurrence Occurrence <a href="http://wdfw.wa.gov/wlm/diversty/soc/soc.htm">http://wdfw.wa.gov/wlm/diversty/soc/soc.htm</a> <a href="http://wdfw.wa.gov/publications/pub.php?">http://wdfw.wa.gov/publications/pub.php?</a>	NA	Candidate N/A PHS Listed	N AS MAPPED	WDFW Fish Program Lines
Fall Chinook Oncorhynchus tshawytscha	Chehalis River SWIFD 63833	Occurrence/Migration Occurrence/migration <a href="http://wdfw.wa.gov/wlm/diversty/soc/soc.htm">http://wdfw.wa.gov/wlm/diversty/soc/soc.htm</a> <a href="http://wdfw.wa.gov/publications/pub.php?">http://wdfw.wa.gov/publications/pub.php?</a>	NA	N/A N/A PHS LISTED	N AS MAPPED	Lines
Freshwater Emergent	N/A NWIWetlands	Aquatic Habitat Aquatic habitat <a href="http://www.ecy.wa.">http://www.ecy.wa.</a>	NA	N/A N/A PHS Listed	N AS MAPPED	US Fish and Wildlife Service Polygons
Freshwater Emergent	N/A NWIWetlands	Aquatic Habitat Aquatic habitat <a href="http://www.ecy.wa.">http://www.ecy.wa.</a>	NA	N/A N/A PHS Listed	N AS MAPPED	US Fish and Wildlife Service Polygons
Freshwater Emergent	N/A NWIWetlands	Aquatic Habitat Aquatic habitat <a href="http://www.ecy.wa.">http://www.ecy.wa.</a>	NA	N/A N/A PHS Listed	N AS MAPPED	US Fish and Wildlife Service Polygons
Freshwater Emergent	N/A NWIWetlands	Aquatic Habitat Aquatic habitat <a href="http://www.ecy.wa.">http://www.ecy.wa.</a>	NA	N/A N/A PHS Listed	N AS MAPPED	US Fish and Wildlife Service Polygons
Freshwater Emergent	N/A NWIWetlands	Aquatic Habitat Aquatic habitat <a href="http://www.ecy.wa.">http://www.ecy.wa.</a>	NA	N/A N/A PHS Listed	N AS MAPPED	US Fish and Wildlife Service Polygons



Common Name Scientific Name Notes	Site Name Source Dataset Source Record Source Date	Priority Area Occurrence Type More Information (URL) Mgmt Recommendations	Accuracy	Federal Status State Status PHS Listing Status	Sensitive Data Resolution	Source Entity Geometry Type
Freshwater Emergent	N/A NWIWetlands	Aquatic Habitat Aquatic habitat  <a href="http://www.ecy.wa.gov">http://www.ecy.wa.gov</a>	NA	N/A N/A  PHS Listed	N AS MAPPED	US Fish and Wildlife Service Polygons
Freshwater Emergent	N/A NWIWetlands	Aquatic Habitat Aquatic habitat  <a href="http://www.ecy.wa.gov">http://www.ecy.wa.gov</a>	NA	N/A N/A  PHS Listed	N AS MAPPED	US Fish and Wildlife Service Polygons
Freshwater Emergent	N/A NWIWetlands	Aquatic Habitat Aquatic habitat  <a href="http://www.ecy.wa.gov">http://www.ecy.wa.gov</a>	NA	N/A N/A  PHS Listed	N AS MAPPED	US Fish and Wildlife Service Polygons
Freshwater Emergent	N/A NWIWetlands	Aquatic Habitat Aquatic habitat  <a href="http://www.ecy.wa.gov">http://www.ecy.wa.gov</a>	NA	N/A N/A  PHS Listed	N AS MAPPED	US Fish and Wildlife Service Polygons
Freshwater Emergent	N/A NWIWetlands	Aquatic Habitat Aquatic habitat  <a href="http://www.ecy.wa.gov">http://www.ecy.wa.gov</a>	NA	N/A N/A  PHS Listed	N AS MAPPED	US Fish and Wildlife Service Polygons
Freshwater Forested/Shrub	N/A NWIWetlands	Aquatic Habitat Aquatic habitat  <a href="http://www.ecy.wa.gov">http://www.ecy.wa.gov</a>	NA	N/A N/A  PHS Listed	N AS MAPPED	US Fish and Wildlife Service Polygons
Freshwater Forested/Shrub	N/A NWIWetlands	Aquatic Habitat Aquatic habitat  <a href="http://www.ecy.wa.gov">http://www.ecy.wa.gov</a>	NA	N/A N/A  PHS Listed	N AS MAPPED	US Fish and Wildlife Service Polygons
Freshwater Forested/Shrub	N/A NWIWetlands	Aquatic Habitat Aquatic habitat  <a href="http://www.ecy.wa.gov">http://www.ecy.wa.gov</a>	NA	N/A N/A  PHS Listed	N AS MAPPED	US Fish and Wildlife Service Polygons

Common Name Scientific Name Notes	Site Name Source Dataset Source Record Source Date	Priority Area Occurrence Type More Information (URL) Mgmt Recommendations	Accuracy	Federal Status State Status PHS Listing Status	Sensitive Data Resolution	Source Entity Geometry Type
Freshwater Forested/Shrub	N/A NWIWetlands	Aquatic Habitat Aquatic habitat  <a href="http://www.ecy.wa.gov">http://www.ecy.wa.gov</a>	NA	N/A N/A  PHS Listed	N AS MAPPED	US Fish and Wildlife Service Polygons
Freshwater Forested/Shrub	N/A NWIWetlands	Aquatic Habitat Aquatic habitat  <a href="http://www.ecy.wa.gov">http://www.ecy.wa.gov</a>	NA	N/A N/A  PHS Listed	N AS MAPPED	US Fish and Wildlife Service Polygons
Freshwater Forested/Shrub	N/A NWIWetlands	Aquatic Habitat Aquatic habitat  <a href="http://www.ecy.wa.gov">http://www.ecy.wa.gov</a>	NA	N/A N/A  PHS Listed	N AS MAPPED	US Fish and Wildlife Service Polygons
Freshwater Forested/Shrub	N/A NWIWetlands	Aquatic Habitat Aquatic habitat  <a href="http://www.ecy.wa.gov">http://www.ecy.wa.gov</a>	NA	N/A N/A  PHS Listed	N AS MAPPED	US Fish and Wildlife Service Polygons
Freshwater Forested/Shrub	N/A NWIWetlands	Aquatic Habitat Aquatic habitat  <a href="http://www.ecy.wa.gov">http://www.ecy.wa.gov</a>	NA	N/A N/A  PHS Listed	N AS MAPPED	US Fish and Wildlife Service Polygons
Freshwater Pond	N/A NWIWetlands	Aquatic Habitat Aquatic habitat  <a href="http://www.ecy.wa.gov">http://www.ecy.wa.gov</a>	NA	N/A N/A  PHS Listed	N AS MAPPED	US Fish and Wildlife Service Polygons
Resident Coastal Cutthroat Oncorhynchus clarki	Dillenaugh Creek SWIFD 56268	Occurrence/Migration Occurrence/migration <a href="http://wdfw.wa.gov/wlm/diversty/soc/soc.htm">http://wdfw.wa.gov/wlm/diversty/soc/soc.htm</a> <a href="http://wdfw.wa.gov/publications/pub.php?">http://wdfw.wa.gov/publications/pub.php?</a>	NA	N/A N/A  PHS LISTED	N AS MAPPED	Lines
Resident Coastal Cutthroat Oncorhynchus clarki	Chehalis River SWIFD 63831	Occurrence/Migration Occurrence/migration <a href="http://wdfw.wa.gov/wlm/diversty/soc/soc.htm">http://wdfw.wa.gov/wlm/diversty/soc/soc.htm</a> <a href="http://wdfw.wa.gov/publications/pub.php?">http://wdfw.wa.gov/publications/pub.php?</a>	NA	N/A N/A  PHS LISTED	N AS MAPPED	Lines



Common Name Scientific Name Notes	Site Name Source Dataset Source Record Source Date	Priority Area Occurrence Type More Information (URL) Mgmt Recommendations	Accuracy	Federal Status State Status PHS Listing Status	Sensitive Data Resolution	Source Entity Geometry Type
Spring Chinook Oncorhynchus tshawytscha	Chehalis River SWIFD 63838	Occurrence/Migration Occurrence/migration <a href="http://wdfw.wa.gov/wlm/diversty/soc/soc.htm">http://wdfw.wa.gov/wlm/diversty/soc/soc.htm</a> <a href="http://wdfw.wa.gov/publications/pub.php?">http://wdfw.wa.gov/publications/pub.php?</a>	NA	N/A N/A PHS LISTED	N AS MAPPED	Lines
Steelhead Oncorhynchus mykiss	Chehalis River SASI 6574	Occurrence Occurrence <a href="http://wdfw.wa.gov/wlm/diversty/soc/soc.htm">http://wdfw.wa.gov/wlm/diversty/soc/soc.htm</a>	NA	Not Warranted N/A PHS Listed	N AS MAPPED	WDFW Fish Program Lines
Steelhead Oncorhynchus mykiss	Chehalis River SASI 6609	Occurrence Occurrence <a href="http://wdfw.wa.gov/wlm/diversty/soc/soc.htm">http://wdfw.wa.gov/wlm/diversty/soc/soc.htm</a>	NA	Not Warranted N/A PHS Listed	N AS MAPPED	WDFW Fish Program Lines
Waterfowl Concentrations	CHEHALIS WETLANDS PHSREGION 902195	Regular Concentration Regular concentration <a href="http://wdfw.wa.gov/publications/pub.php?">http://wdfw.wa.gov/publications/pub.php?</a>	1/4 mile (Quarter	N/A N/A PHS LISTED	N AS MAPPED	WA Dept. of Fish and Wildlife Polygons
Winter Steelhead Oncorhynchus mykiss	Chehalis River SWIFD 63850	Occurrence/Migration Occurrence/migration <a href="http://wdfw.wa.gov/wlm/diversty/soc/soc.htm">http://wdfw.wa.gov/wlm/diversty/soc/soc.htm</a>	NA	N/A N/A PHS LISTED	N AS MAPPED	Lines








DISCLAIMER. This report includes information that the Washington Department of Fish and Wildlife (WDFW) maintains in a central computer database. It is not an attempt to provide you with an official agency response as to the impacts of your project on fish and wildlife. This information only documents the location of fish and wildlife resources to the best of our knowledge. It is not a complete inventory and it is important to note that fish and wildlife resources may occur in areas not currently known to WDFW biologists, or in areas for which comprehensive surveys have not been conducted. Site specific surveys are frequently necessary to rule out the presence of priority resources. Locations of fish and wildlife resources are subject to variation caused by disturbance, changes in season and weather, and other factors. WDFW does not recommend using reports more than six months old.

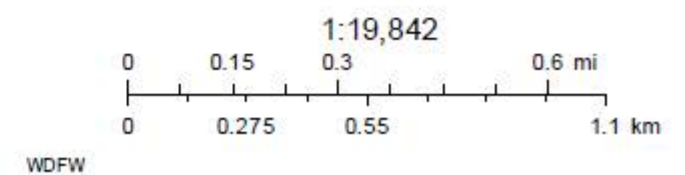


# WDFW Test Map



August 10, 2016

- |  |   |  |
|--|---|--|
|  PHS Report Clip Area |  AS MAPPED |  TOWNSHIP |
|  PT                   |  SECTION   |  |
|  LN                   |  QTR-TWP   |  |



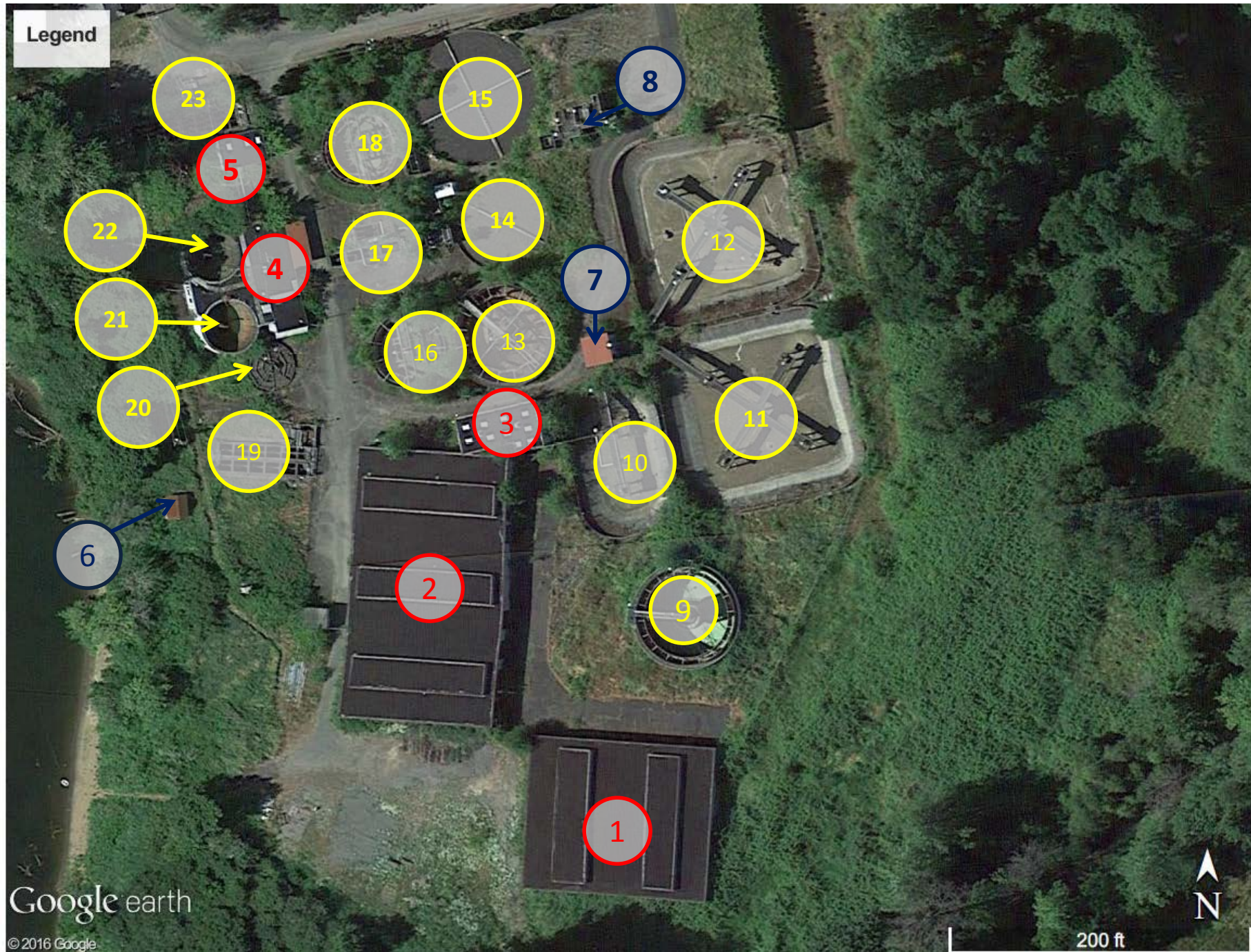
## **ATTACHMENT G**

---

Demolition Plan, Calculations, and Preliminary Phase 1 Estimate



Legend



Google earth

© 2016 Google

200 ft

N

**Large Building (See Exhibit A):**

1. 125 ft x 105 ft = 13,125 SF
2. 185 ft x 105 ft = 19,425 SF
3. 55 ft x 33 ft = 1,815 SF
4. 30 ft x 70 ft = 2,100 SF
5. 30 ft x 20 ft = 600 SF

**Large Building Total = 37,065**

**Small Building (See Exhibit A):**

6. 20 ft x 15 ft = 300 SF
7. 20 ft x 20 ft = 400 SF
8. 22 ft x 50 ft = 1,100 SF

**Small Building Total = 1,800 SF**

**Clarifiers/Digesters Etc. (See Exhibit A):**

9. 70 ft Diam.  $\Rightarrow \pi(70^2)/4 = 3,850$  SF
10. 100 ft x 65 ft = 6,500 SF
11. 125 ft x 125 ft = 15,625 SF
12. 125 ft x 125 ft = 15,625 SF
13. 75 ft Diam.  $\Rightarrow \pi(75^2)/4 = 4,420$  SF
14. 65 ft Diam.  $\Rightarrow \pi(65^2)/4 = 3,320$  SF
15. 90 ft Diam.  $\Rightarrow \pi(90^2)/4 = 6,360$  SF
16. 50 ft Diam.  $\Rightarrow \pi(50^2)/4 = 1,970$  SF
17. 33 ft x 14 ft = 462 SF
18. 50 ft Diam.  $\Rightarrow \pi(50^2)/4 = 1,970$  SF
19. 65 ft x 25 ft = 1,625 SF
20. 32 ft Diam.  $\Rightarrow \pi(32^2)/4 = 805$  SF
21. 40 ft Diam.  $\Rightarrow \pi(40^2)/4 = 1,260$  SF
22. 40 ft Diam.  $\Rightarrow \pi(40^2)/4 = 1,260$  SF
23. 80 ft x 25 ft = 2,000 SF

**Clarifier Total = 67,052 SF**

**Asphalt Removal:**

- $450 \text{ ft} \times 15 \text{ ft} = 6,750 \text{ SF}$
- $450 \text{ ft} \times 15 \text{ ft} = 6,750$
- $(35 \text{ ft} \times 180 \text{ ft}) + (30 \text{ ft} \times 150 \text{ ft}) = 10,800$

**Asphalt Removal Total = 24,300 SF**

**= 2,700 SY**

**Excavation:**

**Planting:**

**Area to be hydroseeded - included**

**under erosion control**

**Erosion Control:**

- 2,500 LF Silt Fence, @ \$7.50/LF = \$18,750
- Construction Entrance => Assume 100 ft x 20 ft = 2,000 SF = 222 SY, @ \$25/SY = \$5,555
- Street Cleaning => Assume 4 hr/day for 20 days (1 month), @ \$136/hr = \$10,880
- ESC Lead => Assume 20 days, @ \$250/day = \$5,000
- Hydroseeding - 374,000 SF @ \$0.25/SF = \$93,500

**Erosion Control Total = \$133,685**

**Clearing and Grubbing:**

Portion of site that contains treatment facility = 550 ft x 680 ft = 374,000 SF = 8.6 Acres

10 Acres (Total Site) – 8.6 Acres (portion of site that contains treatment facility) = 1.4 Acres

**Fine Grading:**

Total Site Area = 10 Acres





Date Updated: 8/3/2022

Initials: A.G.

Checked By: PES

## Chehalis Wastewater Treatment Plan Demolition Phase 1

ITEM	QTY	UNIT	2016 UNIT COST	2016 TOTAL COST	2022 TOTAL COST
1 Mobilization (10%)	1	LS	\$ 92,406.00	\$ 92,406.00	\$ 250,000.00
2 Large Building Demo	37000	SF	\$ 10.00	\$ 370,000.00	\$ 514,654.29
3 Small Building Demo Clarifier/Digester/Screen/Chlorine	1800	SF	\$ 7.50	\$ 13,500.00	\$ 18,777.93
4 Contact Chamber Demo	67000	SF	\$ 5.00	\$ 335,000.00	\$ 2,680,000.00 @ \$40/SF
5 Abatement - Roofing	37000	SF	\$ 2.00	\$ 74,000.00	\$ 102,930.86
6 Removing Asphalt Concrete Pavement	2700	SY	\$ 10.00	\$ 27,000.00	\$ 37,555.85
7 Clearing and Grubbing	1.4	AC	\$ 15,000.00	\$ 21,000.00	\$ 29,210.11
8 Fine Grading	435600	SF	\$ 0.10	\$ 43,560.00	\$ 60,590.11
9 Erosion Control	1	LS	\$ 30,000.00	\$ 30,000.00	\$ 133,685.00
10 Pumping Existing Pipes	1	LS	\$ 10,000.00	\$ 10,000.00	\$ 13,909.58
Subtotal				\$ 1,016,466.00	\$ 3,841,313.72
Tax (8.2%)				\$ 81,317.28	\$ 314,987.73
Contingency (10%)				\$ 101,646.60	\$ 384,131.37
Design/Survey Fees (5%)				\$ 167,716.89	\$ 211,272.25
Construction Fees (5%)				\$ 111,811.26	\$ 211,272.25
<b>TOTAL</b>				<b>\$ 1,478,958.03</b>	<b>\$ 4,962,977.33</b>

Total Cost for 2022 calculated using the Engineering News Review (ENR) City Cost Index, as of July 2022 (Seattle). CCI for July 2022 was compared to August 2016 to determine scaling factor for 2022 estimate. Scaling factor only applies to individual bid items.

## **ATTACHMENT H**

---

Site Photos





PUMP STATION



ABANDONED BUILDING



CONTROL PANELS



ACTIVATED SLUDGE TANK



ACTIVATED SLUDGE TANK



ABANDONED BUILDING



ABANDONED BUILDING



ABANDONED BUILDING