



**CITY COUNCIL**  
ANDY RYDER  
Mayor

CYNTHIA PRATT  
Deputy Mayor

LENNY GREENSTEIN  
MICHAEL STEADMAN  
CAROLYN COX  
ED KUNKEL  
MALCOLM MILLER

**CITY MANAGER**  
SCOTT SPENCE

**LACEY CITY COUNCIL AGENDA**  
**JULY 23, 2020**  
**4:00 P.M.**  
**REMOTE ATTENDANCE**

To comply with Governor Inslee's [Proclamation 20-28](#), the City Council meeting will be conducted remotely, not in-person. You may view the Council meeting by watching live through video streaming on [Live Meetings](#), [YouTube](#), [Facebook](#), or Thurston Community Media, Channel 3 with your local cable provider.

The public may also listen to the meeting via telephone by dialing toll-free:

**(888) 788-0099 or (877) 853-5247** - when prompted enter Webinar ID **849 1530 4679**  
press # (participant ID not required)

**CALL TO ORDER:**

1. **PLEDGE OF ALLEGIANCE**
2. **APPROVAL OF AGENDA & CONSENT AGENDA ITEMS\***
  - A. [Council Worksession minutes of July 2, 2020.](#)
  - B. [Council Meeting minutes of July 9 2020.](#)
  - C. [A motion to approve payment of claims, wages, and transfers for July 2, 2020 through July 16, 2020.](#)

*\*Items listed under the consent agenda are considered to be routine and will be enacted by one motion and one vote. There will be no separate discussion of these items. If discussion is desired, that item will be removed from the Consent Agenda and will be considered separately.*

3. **PUBLIC RECOGNITIONS AND PRESENTATIONS:**

- A. Public Service Award for Paul Enns (Ryan Andrews)

4. **PUBLIC COMMENT ON ITEMS NOT ON THE AGENDA\*\***

**VERBAL PUBLIC COMMENT**

Persons wishing to provide verbal public comment on items NOT on the agenda must preregister to speak at [https://us02web.zoom.us/webinar/register/WN\\_NobTZNh1T76s47F9tTeecw](https://us02web.zoom.us/webinar/register/WN_NobTZNh1T76s47F9tTeecw). Instructions and access details will be provided once registration is complete. Registration for verbal public comment closes at 3:00 p.m. on July 23, 2020.

**WRITTEN PUBLIC COMMENT**

Public comments may also be submitted by email to [publiccomment@ci.lacey.wa.us](mailto:publiccomment@ci.lacey.wa.us). Written comments will be provided to the City Council electronically prior to the meeting. Comments will not be addressed during the Council meeting; however, comments received will be added to the official record. The commenting period will close at 12:00 p.m. on July 23, 2020.

5. **PUBLIC HEARING:**

6. **PROCLAMATIONS:**
  - A. [Parks and Recreation Month \(Jen Burbidge\)](#)
7. **REFERRAL FROM PLANNING COMMISSION:**
8. **REFERRAL FROM HEARINGS EXAMINER:**
  - A. [Project #19-376 Terry Cargil Reservoir Conditional Use Permit Application \(Sarah Schelling\)](#)
9. **RESOLUTIONS:**
10. **ORDINANCES:**
11. **MAYOR'S REPORT:**
12. **CITY MANAGER'S REPORT:**
  - A. [COVID-19 CARES Act Assistance Package \(Rick Walk\)](#)
  - B. [Proposed Interagency Agreement with Dept. of Enterprise Services pertaining to Lacey Veteran Services Hub Renovation Project \(Steve Kirkman & Ashley Smith\)](#)
13. **STANDING GENERAL COMMITTEE:**
  - A. [Community Relations & Public Affairs Committee \(07.06.2020\)](#)
  - B. [Transportation Committee \(07.07.2020\)](#)
14. **OTHER BUSINESS:**
15. **BOARDS, COMMISSIONS AND COMMITTEE REPORTS:**
  - A. Mayor Andy Ryder:
    1. Mayors' Forum
    2. Thurston Chamber Shared Legislative Committee
    3. Transportation Policy Board (TPB)
  - B. Deputy Mayor Cynthia Pratt:
    1. Joint Animal Services Commission (JASCOM)
    2. LOTT Clean Water Alliance
    3. Olympic Region Clean Air Agency (ORCAA)
  - C. Councilmember Carolyn Cox:
    1. Regional Housing Council
    2. Health & Human Services Council (HHSC)
    3. Intercity Transit (IT)
  - D. Councilmember Lenny Greenstein:
    1. Emergency Medical Services (EMS)
    2. TCOMM911
    3. Thurston County Law & Justice
  - E. Councilmember Malcolm Miller:
    1. Thurston Regional Planning Council (TRPC)
    2. Thurston Thrives
    3. Lodging Tax Advisory Committee (LTAC)
    4. Thurston County Coalition Against Trafficking (TCCAT)
  - F. Councilmember Michael Steadman:
    1. Community Action Council

2. Solid Waste Advisory Committee (SWAC)

G. Councilmember Ed Kunkel:

1. Olympia-Lacey-Tumwater Visitor & Convention Bureau (VCB)
2. Lacey South Sound Chamber
3. Economic Development Council (EDC)

16. **ADJOURN**

## **MINUTES OF THE LACEY CITY COUNCIL WORKSESSION**

JULY 2, 2020

4:00 P.M. – 5:18 P.M.

REMOTE ONLY

COUNCIL PRESENT: MAYOR RYDER, DEPUTY MAYOR PRATT, COUNCILMEMBERS  
GREENSTEIN, STEADMAN, COX, KUNKEL, MILLER

STAFF PRESENT: S. SPENCE, J. BURBIDGE, S. EGGER, D. SCHNEIDER,  
R. ARMADA, R. WALK, T. WOO, E. FONTAINE

ACTION: APPROVE THE WORKSESSION AGENDA

MOTION: MOTION MADE, SECONDED AND CARRIED BY COUNCILMEMBERS  
GREENSTEIN AND STEADMAN

### **APPOINTMENT OF PLANNING COMMISSIONER ROBIN VAZQUEZ**

STAFF: SCOTT SPENCE, CITY MANAGER

ACTION: APPOINT ROBIN VAZQUEZ AS PLANNING COMMISSIONER

MOTION: MOTION MADE, SECONDED AND CARRIED BY COUNCILMEMBERS COX AND  
GREENSTEIN TO APPOINT ROBIN VAZQUEZ TO PLANNING COMMISSION

Council agreed during the June 25, 2020, Council meeting to postpone consideration of the appointment of Robin Vazquez until the July 2, 2020, Worksession to allow time to review the application. Council determined that everybody had reviewed the application and was prepared for the recommendation.

### **CITY OF LACEY – REOPENING UNDER GOVERNOR’S PHASE 3 SAFE START PLAN - UPDATE**

STAFF: SCOTT SPENCE, CITY MANAGER

ACTION: INFORMATION ONLY

Scott Spence, City Manager, provided Council with an update to the reopening of City facilities under the Governor’s Phase 3 Safe Start Plan. Due to the rising positive cases and the pause in phases, City Hall will be open from 10:00 am to 5:00 pm Monday, Wednesday, and Friday until further notice.

Councilmember Greenstein advised that the Governor provided new updates regarding businesses requiring customers to wear masks. Deputy Mayor stated she had some additional masks to donate to the City for both staff and customer use.

#### **CIVIC LEADERSHIP GROUP ON EQUITY - UPDATE**

STAFF: SCOTT SPENCE, CITY MANAGER

ACTION: INFORMATION ONLY

Scott Spence, City Manager, provided an update regarding the Civic Leadership Group approach to determine if the current priorities meet Council needs.

Priorities include:

- Community inclusiveness
- Engage in discussion and education surrounding race and diversity
- Data examination for community inequity

Council discussed the direction of the group with staff and shared thoughts and ideas for areas of interest. There was a consensus that a committee or ad-hoc group should have projects and goals to reduce the gap in any data gathered and internal City policies and procedures should be included in the review.

#### **COUNCIL TRAVEL POLICY**

STAFF: SCOTT SPENCE, CITY MANAGER

ACTION: INFORMATION ONLY

Scott Spence, City Manager, presented current travel dollars to check in with Council in order to meet policy requirements.

Restrictions on non-essential travel, conference and event cancellations due to the COVID-19 pandemic have greatly reduced Council travel needs. Council agreed that travel dollars were not a priority at this time and there were no immediate concerns for discussion.

### **CITY COUNCIL MEETING SCHEDULE**

STAFF: SCOTT SPENCE, CITY MANAGER  
DAVE SCHNEIDER, CITY ATTORNEY  
ACTION: INFORMATION ONLY

Scott Spence, City Manager, presented Council with options and constraints relating to future council meeting schedules.

Dave Schneider, City Attorney, presented recent opinions regarding remote meetings and the Open Public Meetings Act (OPMA). Staff recommended remaining in a remote only meeting format as long as a declaration of emergency stays in place. Council expressed the primary concern is to improve how the public engages in public comment during the meetings.

There was consensus that the current meeting time of 4:00pm on Thursday for regular Council Meetings and Council Worksessions is adequate. However, as schedules return to a more normal structure, Council expressed the need for further discussions regarding time.

### **COMMUNITY-BASED COMMITTEE ON HOMELESSNESS – SELECTION PROCESS**

STAFF: RICK WALK, DIRECTOR OF COMMUNITY AND ECONOMIC DEVELOPMENT  
ACTION: INFORMATION ONLY

Rick Walk, Director of Community and Economic Development, presented Council with the selection process for the Community-Based Committee on Homelessness.

A total of 76 applications were received and narrowed down to 30. The selection process highlighted the applicant breakdown by Council votes, community representation, and residential location between City limits and the Urban Growth Area.

Staff recommended Council review the remaining applicants for selection of the last three positions. Council provided consensus to select the following applicants for the remaining three positions:

Casey Forsyth  
Joe Miller  
James Stanton

Alternates will be presented before Council as needed. Staff advised of a project meeting next week to start coordinating schedules and a first Committee meeting is anticipated for early August.

MINUTES OF A REGULAR MEETING OF THE  
LACEY CITY COUNCIL HELD THURSDAY,  
JULY 9, 2020, REMOTE ATTENDANCE

CALL TO ORDER: Mayor Ryder called the meeting to order at 4:00 p.m.

PLEDGE OF ALLEGIANCE: Mayor Ryder led the Pledge of Allegiance.

COUNCIL PRESENT: A. Ryder, C. Pratt, L. Greenstein, C. Cox, S. Steadman, E. Kunkel, M. Miller

STAFF PRESENT: T. Woo, J. Burbidge, S. Egger, D. Schneider, R. Walk, T. Woo, R. Andrews, P. Brooks, R. Schoessel, M. Hoppe, P. Edmonds

Mayor Ryder requested amending the agenda to add Item 12.C. - Department of Commerce Regional Grant Application.

APPROVAL OF AGENDA  
AND CONSENT AGENDA:

Consent Agenda Items:

- A. Council Worksession Minutes of June 18, 2020
- B. Council Meeting Minutes of June 25, 2020
- C. A motion to approve payment of claims, wages and transfers for June 18, 2020, through July 1, 2020.

COUNCILMEMBER COX MOVED TO APPROVE THE CONSENT AGENDA AND AMENDED AGENDA. DEPUTY MAYOR PRATT SECONDED. MOTION CARRIED.

PUBLIC COMMENT: Persons wishing to provide public comment on items not on the agenda must pre-register to speak. Registration closed at 3:00 p.m. today.

No one registered to speak during public comment.

Public comments may also be submitted by email by 12:00 p.m. today. Comments will be provided to the City Council electronically prior to the meeting. Comments will not be addressed during the meeting; however, comments received will be added to the official records.

Two written public comments were received and made a part of the record.

**PUBLIC HEARING:**

Project No. 19-333, LFD3 Mullen Road Annexation

Mayor Ryder opened the Public Hearing at 4:04 p.m.

Ryan Andrews, Planning Manager, presented Project No. 19-333, LFD 3 Mullen Road Annexation.

The City received a petition for annexation filed by Lacey Fire District 3, the City of Lacey, and Timberline Baptist Church using the 60 percent petition method authorized by RCW 35A.14.120. The Thurston County Assessor's office verified the signatures represent not less than 60 percent of the assessed valuation for general taxation of the property.

Prior to approval of the annexation, a public hearing is required to be held by the City Council. Notice of the public hearing was published in The Olympian and posted in three public places in the proposed annexation area.

Staff will forward the annexation to the Thurston County Boundary Review Board (BRB) for their

review following the public hearing. Once review by the BRB has concluded, Council can take final action on the annexation through passage of an ordinance approving the annexation.

No oral or written public testimony was received for the public hearing.

Mayor Ryder closed the public hearing at 4:16 p.m.

COUNCILMEMBER GREENSTEIN MOVED TO FORWARD THE LFD3 MULLEN ROAD ANNEXATION PROPOSAL TO THE BOUNDARY REVIEW BOARD. COUNCILMEMBER STEADMAN SECONDED. MOTION CARRIED.

#### RESOLUTIONS:

Martin Hoppe, Transportation Manager, presented Resolution 1095 to approve the 2020-2021 Six-Year Transportation Improvement Plan.

The City is required to prepare an annual Transportation Improvement Plan (TIP) and submit to the Washington State Department of Transportation (WSDOT) and Thurston Regional Planning Council (TRPC) by July 31 each year.

The primary purpose of the TIP is to track the Federal Transportation and State Transportation Improvement Board funds. The funds shown do not obligate the City to any specific amount of matching dollars. All projects on the TIP are consistent with the Transportation Comprehensive Plan. Three projects are recommended to be added and one project is recommended to be removed. The Planning Commission held a hearing on May 19, 2020, and recommended approval.

The Transportation Mitigation List is also updated with the TIP. This year, no project changes are recommended. The yearly inflation rate will increase based on the July 1<sup>st</sup> Engineering News publication.

DEPUTY MAYOR PRATT MOVED TO APPROVE THE PROPOSED 2021 SIX-YEAR TRANSPORTATION IMPROVEMENT PROGRAM AND TRANSPORTATION IMPROVEMENT MITIGATION LIST. COUNCILMEMBER GREENSTEIN SECONDED. MOTION CARRIED.

#### ORDINANCES:

Ryan Andrews, Planning Manager, presented Ordinance No. 1568 to approve amending the Lacey Municipal Code 16.12 and 16.13 relating to Accessory Dwelling Unit (ADU) Setbacks

This is a referral from the Planning Commission and a high priority action item identified in the City of Lacey's Affordable Housing Strategy. It is the reduction in lot sizes and widths in the existing Low Density 0-4 zoning district. Doing this will effectively increase density minimums in existing neighborhoods and will ultimately increase the diversity of housing stock in the zone.

COUNCILMEMBER STEADMAN MOVED TO APPROVE ORDINANCE NO. 1568 TO AMEND LACEY MUNICIPAL CODE 16.12 AND 16.13 RELATING TO ACCESSORY DWELLING UNIT (ADU) SETBACKS. COUNCILMEMBER GREENSTEIN SECONDED. MOTION CARRIED.

#### CITY MANAGER'S REPORT:

Peter Brooks, Water Resources Manager, requested Council authorize the City Manager to sign the General Interlocal Agreement, Reclaimed Water Distribution Agreement No. 2, and

Reclaimed Water Supply Agreement regarding  
MWRWP with LOTT Cleanwater Alliance.

The cities of Tumwater, Olympia, and Lacey, and Thurston County have been coordinating the distribution and use of reclaimed water since the original General Interlocal Agreement was adopted regionally in 2004.

The agreements update and refine the terms of the original agreements, re-affirm the City's commitment to ongoing coordination, ensures a specific allotment of reclaimed water is available to the City, and outlines distribution and use expectations as required by the State.

DEPUTY MAYOR PRATT MOVED TO  
AUTHORIZE THE CITY MANAGER TO SIGN THE  
GENERAL INTERLOCAL AGREEMENT,  
RECLAIMED WATER DISTRIBUTION  
AGREEMENT NO. 2, AND RECLAIMED WATER  
SUPPLY AGREEMENT REGARDING MWRWP  
WITH LOTT CLEANWATER ALLIANCE.  
COUNCILMEMBER STEADMAN. SECONDED.  
MOTION CARRIED.

Aubrey Collier, Design & Construction Manager,  
presented Council with the 2019 Transportation  
Benefit District Annual Report.

On February 14, 2017, Lacey voters approved the 0.2% sales tax increase proposed by the City's Transportation Benefit District (TBD). The revenues generated by this measure are dedicated to fund street maintenance projects. The tax increase came into effect in July 2017. The Revised Code of Washington 36.73.160(2) states that a district shall issue an annual report indicating the status of transportation improvement costs, expenditures, revenues, and construction schedules to the public and to newspapers of record within the district.

DEPUTY MAYOR PRATT MOVED TO APPROVE THE TRANSPORTATION BENEFIT DISTRICT 2019 ANNUAL REPORT. COUNCILMEMBER GREENSTEIN SECONDED. MOTION CARRIED.

Rick Walk, Community & Economic Development Director, briefed Council on the Washington State Department of Commerce Regional Grant Application.

Thurston Council, and the cities of Lacey and Olympia, are coordinating a regional application to the Department of Commerce to receive \$1.5 million over the next three years for the purpose of creating new permanent shelter beds in the community. The application deadline is July 17, 2020. Commerce intends to provide up to \$10,000 per new bed created, and \$56 per day, per shelter bed created.

#### STANDING GENERAL COMMITTEE:

##### Finance & Economic Development Committee

Mayor Ryder reported the Committee met on June 23, 2020, and discussed several items:

- Request by Hawks Prairie Casino to reduce their gambling tax
- First quarter financial report
- 2021 budget calendar
- 2021 utility rate proposals
- Building permit system upgrade

##### General Government & Public Safety Committee

Deputy Mayor Pratt reported the Committee met on June 23, 2020, and discussed the Regional Climate Action Plan and Community Based Committee on Homelessness.

#### Land Use Committee

Councilmember Cox reported the Committee met on June 23, 2020, and discussed the Shoreline Master Plan, Urban Forestry Plan, and Low Density Zoning Amendments.

#### BOARDS & COMMISSIONS:

##### Joint Animal Services Commission

Deputy Mayor Pratt reported on several items:

- Opening by appointment June 2, 2020
- Field officers continue to address calls and complaints
- Employees received emergency management training through FEMA

##### ORCAA

Deputy Mayor Pratt reported the board received a \$35,000 grant for the woodstove reduction program.

##### LOTT

Deputy Mayor Pratt reported on the board's special meeting to discuss options for those needing assistance on LOTT bills.

##### Intercity Transit

Councilmember Cox reported on several items:

- Buses currently operating at 35% of normal service
- All passengers required to wear masks
- City of Olympia design review approved for Pattison Street site
- Lacey Transit Center will be repainted

##### Emergency Medical Services

Councilmember Greenstein met with Kurt Harden, Executive Director, to discuss the budget and current financial situation. The current levy was approved in 1999 and has deteriorated since then.

Olympia-Lacey-Tumwater Visitor & Convention  
Bureau

Council Miller reported the Board reviewed the return on investment the City receives from the VCB. Lacey membership is about 18%, which is about 58 of Lacey businesses. Lacey hotels represent 30% of hotel rooms in Thurston County.

Lacey South Sound Chamber of Commerce

Councilmember Miller reported their new building has been updated. Social media marketing is going well. The new Lacey apparel has launched at laceylocal.com.

SWAC

Councilmember Steadman reported there have been several RFPs for contracts; the Committee reviewed the Solid Waste Management Plan.

Mayor Ryder adjourned to a Worksession 5:50 p.m.

MAYOR: \_\_\_\_\_

ATTESTED BY CITY CLERK: \_\_\_\_\_

DATE APPROVED: \_\_\_\_\_



## LACEY CITY COUNCIL MEETING

July 23, 2020

**SUBJECT:** Disbursement Approval

---

**RECOMMENDATION:** By motion, approve payment of claims, wages, and transfers.

---

**STAFF CONTACT:** Troy Woo, Finance Director 

**ORIGINATED BY:** Troy Woo, Finance Department

---

**BACKGROUND:**

The action requested of the City Council is by motion to approve payment of claims, wages and transfers for 7/2/2020 through 7/16/2020. The disbursements consist of the following:

| Checks: | <u>Week of</u> | <u>Beg. Check No.</u> | <u>End. Check No.</u> | <u>Amount</u> |
|---------|----------------|-----------------------|-----------------------|---------------|
|         | 7/10/2020      | 252058                | 252182                | 1,429,109.48  |

| Electronic Transfers: | <u>Week of</u> | <u>Amount</u> |
|-----------------------|----------------|---------------|
|                       | 6/30/2020      | 40,953.57     |
|                       | *7/2/2020      | 571.51        |
|                       | *7/9/2020      | 25,426.35     |
|                       | 7/10/2020      | 175,035.59    |
|                       | *7/13/2020     | 807.85        |

| Payroll: | <u>Month Ended:</u> | <u>Wages</u> |
|----------|---------------------|--------------|
|          | *7/2/2020           | 1,216.84     |

**Significant Disbursements:**

| <u>Vendor</u>            | <u>Amount</u>  | <u>Description</u>                  |
|--------------------------|----------------|-------------------------------------|
| LOTT Wastewater Alliance | \$1,212,684.80 | LOTT Reserve Cap Fees/ERU's         |
| RH2 Engineering, Inc.    | \$ 55,924.16   | HP Sister Pipe/Onsite LS Generators |

\* Disbursements for employee out-of-pocket deductions and employee benefits.

## **CITY OF LACEY**

### ***Official Proclamation***

**WHEREAS**, our parks and recreation are vitally important to establishing and maintaining the quality of life in our communities, ensuring the health of all citizens, and contributing to the economic and environmental well-being of a community and region; and

**WHEREAS**, parks and recreation programs build healthy, active communities that aid in the prevention of chronic disease, provide therapeutic recreation services for those who are mentally or physically disabled, and also improve the mental and emotional health of all residents; and

**WHEREAS**, parks and recreation programs increase a community's economic prosperity through increased property values, expansion of the local tax base, increased tourism, the attraction and retention of businesses, and crime reduction; and

**WHEREAS**, parks and natural recreation areas improve water quality, protect groundwater, prevent flooding, improve the quality of the air we breathe, provide vegetative buffers to development, and produce habitat for wildlife; and

**WHEREAS**, our parks and natural recreation areas ensure the ecological beauty of our community and provide a place for children and adults to connect with nature and recreate outdoors; and

**WHEREAS**, the U.S. House of Representatives designated July as Parks and Recreation Month; and

**WHEREAS**, the Lacey City Council, Park Board of Commissioners, and community members recognize the significance of our community's park and recreation programs.

**NOW, THEREFORE**, I, Andy Ryder, Mayor of the City of Lacey, on behalf of the Lacey City Council, do hereby proclaim July 2020, as

### ***Lacey Parks & Recreation Month***

\_\_\_\_\_  
Mayor Andy Ryder  
July 23, 2020



## SUMMARY OF HEARINGS EXAMINER REPORT TO CITY COUNCIL

**SUBJECT:** Project #19-376 –Conditional Use Permit for City of Lacey Terry Cargil Water Reservoir

**DESCRIPTION OF PROPOSAL:** Request for approval to construct a 130-foot tall, elevated water tank, capable of storing 1.25 million gallons of water for use by the City of Lacey Water customers. Associated improvements include installation of a site storm water system and site landscaping. The project has been classified as a Type III Essential Public Facility. Project Location: 4504B Intelco Loop Southeast, Lacey, Washington 98503. The parcel number is 5805000601 and is located in Lacey, Thurston County, Washington.

**SUMMARY OF CONCLUSIONS:** The Hearing Examiner conducted a public hearing on Friday June 17, 2020. The hearing was held as a zoom webinar that allowed for public testimony. All hearing notices provided information necessary for the public and interested parties to attend the virtual hearing. Staff, the applicant, and a member of the adjacent neighborhood provided testimony about the project. Topics of discussion at the hearing included: neighborhood compatibility; storm water management; tree removal; and construction standards and reservoir safety.

The Hearings Examiner has recommended approval of the conditional use permit application. The conditions of approval recommended to the City Council for the project are substantially as recommended by City staff. Staff is requesting the Council approve the proposal including adoption of findings, conclusions and conditions outlined in the written recommendation of the Hearings Examiner dated July 2, 2020.

**ACTION OPTIONS FOR CITY COUNCIL:** The City Council may take one of the following actions:

1. Approve the recommendation of the Hearings Examiner.
2. Reverse the decision of the Hearings Examiner.
3. Modify the recommendation of the Hearings Examiner.

Any decision to modify or reject the Examiner's decision shall be made based on the open record hearing and supported by findings of fact and conclusions.

**BEFORE THE HEARINGS EXAMINER  
FOR THE CITY OF LACEY**

|                                                   |   |                        |
|---------------------------------------------------|---|------------------------|
| In the Matter of the Application of               | ) | No. 19-376             |
|                                                   | ) |                        |
| <b>Puna Clark, City of Lacey Public Works</b>     | ) | Terry Cargil Reservoir |
| <b>Department, on behalf of the City of Lacey</b> | ) |                        |
|                                                   | ) |                        |
|                                                   | ) | FINDINGS, CONCLUSIONS, |
| <u>For Approval of a Conditional Use Permit</u>   | ) | AND RECOMMENDATION     |

**SUMMARY OF RECOMMENDATION**

The Hearings Examiner recommends that the Lacey City Council **APPROVE** the proposal for a Conditional Use Permit to construct a 130-foot-tall, 1.25-million-gallon reservoir, with an associated stormwater system and site landscaping, at 4504B Intelco Loop Southeast. Conditions are necessary to address specific impacts of the proposed project.

**SUMMARY OF RECORD**

Hearing Date:

The Hearings Examiner for the City of Lacey held an open record hearing on the request on June 17, 2020, using remote technology in light of the COVID-19 outbreak. The record was left open until June 19, 2020, to assure that any member of the public having difficulty connecting to the remote hearing would have the opportunity to provide comments on the request. No additional comments were received, and the record closed on June 19, 2020.

Testimony:

The following individuals presented testimony under oath at the open record hearing:

Sarah Schelling, City Senior Planner  
Stewart Souders  
Irina Souders  
Marshall Meyer, Applicant Representative  
Doug Christenson, City Water Resources Engineer  
Tom Stiles, City Development Review Engineer

Exhibits:

The following exhibits were admitted into the record:

1. List of Exhibits
2. Staff Report, dated June 8, 2020
3. General Land Use Application, received March 26, 2020
4. Conditional Use Permit Supplemental Application, received March 26, 2020
5. Conditional Use Permit Application #10 – Other Information, undated

*Findings, Conclusions, and Recommendation  
City of Lacey Hearings Examiner  
City Public Works Department CUP, No. 19-376*

6. SEPA Environmental Checklist, dated March 24, 2020
7. Preliminary Site Layout Plan, undated; Site Piping Plan, undated
8. Preliminary Landscape Site Plan, undated
9. Site Perspectives, eight (8) pages, undated
10. Stormwater Report, Murraysmith, Inc., dated March 2020
11. Tree Removal Assessment, Sound Urban Forestry, LLC, dated March 10, 2020
12. Transmittal Memorandum, dated April 9, 2020
13. Notice of Application with the Optional DNS Process, undated
14. Notice of Application, for publication April 13, 2020
15. Email from Shaun Dinubilo, Squaxin Island Tribe, to Sarah Schelling, undated, with email string, dated April 9, 2020
16. Letter from Brad Beach, et al., Nisqually Indian Tribe, to Sarah Schelling, dated April 15, 2020
17. Initial Stormwater Review Memorandum, dated April 24, 2020
18. Development Review Public Works Division Conditional Use Permit Conditions, notes by Tom Stiles, dated April 13, 2020
19. Letter from Southwest Regional Office, Department of Ecology, to Sarah Schelling, dated April 24, 2020
20. Determination of Nonsignificance, issued May 26, 2020
21. Notice of Public Hearing, undated, with Preliminary Landscape Site Plan
22. Order Confirmation, *The Olympian* (No. 0004664375), run date June 4, 2020, with published notice, dated June 4, 2020
23. Water System Schematic, Water System Comprehensive Plan, Figure 1.12
24. Certification of Public Notice, dated June 8, 2020
25. Letter from Irina Souders to Sarah Schelling, dated June 14, 2020
26. Staff PowerPoint Presentation, received June 17, 2020

The Hearings Examiner enters the following findings and conclusions based upon the testimony and exhibits admitted at the open record hearing:

## **FINDINGS**

### Application and Notice

1. Puna Clark, on behalf of the City of Lacey Public Works Department (Applicant), requests approval of a Conditional Use Permit (CUP) to construct a 130-foot-tall, 1.25-million-gallon reservoir, including an associated stormwater system and site landscaping. The property is located at 4504B Intelco Loop Southeast.<sup>1</sup> *Exhibit 2, Staff Report, pages 1 through 7; Exhibits 3 through 5; Exhibits 7 through 9.*
2. Prior to submitting the CUP application, the Applicant held an informational meeting, at which several members of the public raised concerns related to construction noise, impacts to property values, water tower safety, and neighborhood compatibility. In

---

<sup>1</sup> The property is identified by tax parcel number: 5805000601. *Exhibit 2, Staff Report, page 1.*

response to questions and concerns raised at the meeting, the City Public Works Department submitted a supplemental information sheet with the application, which is discussed in further detail below. *Exhibit 2, Staff Report, pages 5 and 6; Exhibit 5.*

3. The City of Lacey (City) determined that the application was complete on April 9, 2020. The same day, the City provided notice of the application by routing notice to reviewing City departments and government agencies and by posting notice on-site. The City published notice of the application in *The Olympian* on April 13, 2020. On June 4, 2020, the City provided notice of the open record hearing associated with the application by mailing notice to all property owners within 300 feet of the site and by publishing notice in *The Olympian*. Notice of the open record hearing was posted on-site on June 8, 2020. The City received one public comment from Irina Souders in advance of the open record hearing, which raised concerns related to water tower safety and noise impacts. Ms. Souders also inquired about whether the City carried liability insurance that would cover damage to neighboring property, whether the project would result in lower property values for area homes, and other details of the proposal. The City also received three agency comments that are discussed in further detail below. *Exhibit 2, Staff Report, page 4; Exhibit 12; Exhibit 13; Exhibit 14; Exhibit 21; Exhibit 22; Exhibit 24; Exhibit 25.*

#### State Environmental Policy Act

4. The City Community Development Department (CDD) acted as lead agency and analyzed the environmental impacts of the proposal, as required by the State Environmental Policy Act (SEPA), Chapter 43.21C Revised Code of Washington (RCW). CDD consolidated notice of the SEPA review and application comment periods under the optional process provided for by Washington Administrative Code (WAC) 197-11-355, with a comment deadline of April 24, 2020. The notice materials stated that CDD expected to issue a Determination of Nonsignificance (DNS) for the project. As noted above, the City received three agency comments in response to its notice materials. The Washington State Department of Ecology (DOE) commented that the proposed project must utilize only clean fill for all grading and filling; that if contamination is suspected, discovered, or occurs during the proposed project, testing of the suspected contaminated material must be conducted; that erosion control measures must be in place prior to any clearing, grading, or construction. DOE also listed construction activities that would require coverage under Construction Stormwater General Permits. The Squaxin Island Tribe commented that work should be halted if any archaeological or cultural resources are uncovered. The Nisqually Indian Tribe commented that it did not have any concerns about the proposal. CDD reviewed the comments received in response to its notice materials, the Applicant's Environmental Checklist, and other information on file, and determined that the proposal would not have a significant adverse impact on the environment. Accordingly, CDD issued a DNS on May 26, 2020, with an appeal deadline of June 9, 2020. The DNS was not appealed. *Exhibit 2, Staff Report, page 2; Exhibits 3 through 10; Exhibits 13 through 16; Exhibit 19; Exhibit 20.*

Existing Site, Comprehensive Plan, and Zoning

5. The project area is located on a 0.8-acre forested parcel that is currently undeveloped. City Senior Planner Sarah Schelling testified that the City had purchased the property in 2008 for the purpose of installing a water storage tower and that the City had selected the property because of its high ground elevation in the 337 water pressure zone. The Applicant proposes to construct a 130-foot-tall, 1.25-million-gallon reservoir consisting of an approximately 80-foot-wide steel water tank supported on an approximately 42-foot-wide concrete support pedestal. The proposed elevated water tank would provide the storage capacity and water pressure necessary to meet the current and future needs of the 337 water pressure zone service area, which includes all of east, south, and southwest Lacey, including water customers within the Urban Growth Boundary. The proposed project would also include construction of an access road connecting to Intelco Loop SE, a stormwater detention pond, landscaping, and piping to connect the reservoir with the City water system. The Applicant would also install security fencing along the perimeter of the site. *Exhibit 2, Staff Report, pages 1, 2, and 4; Exhibits 6 through 10; Testimony of Ms. Schelling; Testimony of Marshall Meyer.*
6. As noted above, the City Public Works Department submitted a supplemental information sheet with the application addressing concerns raised by members of the public at a preapplication informational meeting. The supplemental information sheet provided the following responses to concerns and inquiries raised at the meeting:
  - The proposed new reservoir would benefit the 337 pressure zone, which is approximately 40 percent of the city and includes the Pointe of Lacey development, Intelco Loop, College Street Corridor, and Corporate Center.
  - The City does not have a licensed property appraiser on staff and abstains from providing property values.
  - The reservoir needs to be located on a high spot in this area of the city, and the property is at the highest elevation in the southwestern side of the pressure zone.
  - The reservoir is being designed to current applicable seismic and structural standards.
  - The reservoir would be outfitted with flow meters, floats, sensors, valves, and a Supervisory Control and Data Acquisition (SCADA) system; the SCADA system would be constantly monitored and would alert City staff of any complications or emergencies.
  - The City has not experienced any leaks at any City reservoirs resulting in damage to surrounding property.
  - The reservoir would be designed to the highest standard in the building code.
  - Construction would take between 14 and 16 months.
  - The project would be paid for by City rates and connection fees, with no special assessments to nearby properties or water customers.

- The reservoir would be a Composite Elevated Tank, with the top portion made of steel and the column made of concrete; the steel section would be painted a single color to blend in with the area.

*Exhibit 2, Staff Report, pages 5 and 6; Exhibit 5.*

7. The City and Thurston County prepared a joint planning document, the “City of Lacey and Lacey Urban Growth Area Comprehensive Plan” (Comprehensive Plan) under the Growth Management Act, to account for long-term growth and planning within the community. The Comprehensive Plan designates the subject property as being within the Horizons Planning Area, which is characterized as a newer area of the city with a majority of the development having occurred since the City began its planning under the Growth Management Act. *Comprehensive Plan, section 6-1.* The Horizons Planning Area has developed with diverse projects that include cluster housing, townhouses, and mixed-use developments. *Comprehensive Plan, section 6-1.* City staff identified the following Comprehensive Plan goals and policies as relevant to the proposal:
  - Framework Land Use Policy G: Plan to accommodate a projected 2035 city population of 53,090 and potential annexations of areas within the UGA.
  - Utilities and Capital Facilities Goal 1: Ensure that existing utility customers, and future customers, are adequately served by water, sewer, and stormwater utility services that consider both growth demand projections and asset management.
  - Utilities and Capital Facilities Policy A: Provision of utilities shall be consistent with policies of the Land Use Element, further the intent of GMA strategies, and be consistent with county-wide planning policies.
  - Water Resources Goal 1: Ensure the long-term protection and preservation of both the quality and quantity of groundwater and surface waters for all uses.
  - Water Resources Policy A: Ensure that policies, requirements, and standards promote compliance with the Federal Clean Water Act and source water protection provisions of the Safe Drinking Water Act.
  - Water Resources Policy B: Regularly review and update City of Lacey requirements, standards, and Water, Wastewater, and Stormwater Comprehensive Plans, as needed, to reflect the best available science and applicable state and federal regulations.
  - Essential Public Facilities Goal 1: Minimize impacts associated with the siting of essential public facilities and provide appropriate standards for facilities that will protect neighborhoods and the community.
  - Essential Public Facilities Policy A: Maintain consistency with the CWPP’s and state law for siting requirements associated with essential public facilities.
  - Essential Public Facilities Policy B: Continue to provide for essential public facilities through the conditional use permitting process to provide for meaningful review, early public input, impacts to critical areas, and mitigation of probable significant adverse impacts.

*Exhibit 2, Staff Report, pages 2 and 3.*

8. The property is zoned Community Office. Under Lacey Municipal Code (LMC) 16.41.010, the intent of the Community Office zoning district is to:
- A. Provide an environment conducive to a broad range of office uses including administrative facilities, research institutions, professional offices, and medical offices;
  - B. Provide the opportunity for specialized manufacturing operations, subject to appropriate controls, to protect nearby land uses;
  - C. Allow for a broad range of complementary uses including multifamily residential, limited retail uses, and commercial recreation uses;
  - D. Retail uses in this zone shall be limited because of the community office district's proximity to zoning districts that provide retail services;
  - E. Provide development standards to enhance the compatibility of the district adjacent to commercial or residential areas.

*Exhibit 2, Staff Report, page 2.*

9. Property to the north of the project site is developed with a residential subdivision, The Point, which consists of single-family townhome units on individual lots. A 25-foot tree buffer owned by The Pointe neighborhood is located immediately north of the project site. As discussed in further detail below, the Applicant would remove trees within the buffer. Property to the west is developed with a multi-tenant commercial building. Property to the south is developed with a childcare center. Property to the east and southeast consists of undeveloped land in the Community Office zoning district. *Exhibit 2, Staff Report, pages 2 and 5; Exhibit 11.*

Conditional Use Permit  
*General Considerations*

10. The municipal code makes certain uses conditional in specific zoning districts. *LMC 16.66.010 and .020. A conditional use is a use that, because of special requirements, unusual character, size or shape, infrequent occurrence or possible detrimental effects on surrounding property, or other, similar reasons, is allowed in certain districts only with a CUP granted by the City Council. LMC 16.06.240. Essential public facilities are allowed in the Community Office zone with a CUP. 16.41.020.O; LMC 16.66.020; LMC 16.66.060. Exhibit 2, Staff Report, pages 4 and 5.*
11. Essential public facilities are “public or privately owned or operated facilities while, although serving a public purpose, are typically difficult to site.” *LMC 16.66.060.A.* Essential public facilities are classified as one of three types based on the span of area served by the facilities. LMC 16.66.060.D grants the City the authority to determine the classification of essential public facilities. Here, the City determined that the proposed facility would be classified as a Type III essential public facility because it would mainly affect individuals within the City of Lacey or those with City of Lacey water accounts.

*LMC 16.66.060.C.3.* Unlike Type I and Type II essential public facilities, applications for Type III essential public facilities are not subject to early notification or alternative site analysis requirements. *LMC 16.66.060.E and G. Exhibit 2, Staff Report, pages 4 and 5.*

12. LMC 16.66.050 provides that the design standards established for the underlying zoning district serve as the initial base of reference in determining the design standards for conditional uses in the zoning district. City Senior Planner Sarah Schelling testified that, with conditions, the project would meet all the code requirements under Chapter 16.66 LMC. *Exhibit 2, Staff Report, page 6; Testimony of Ms. Schelling.*
13. All conditional uses must satisfy the environmental standards of Chapter 16.57 LMC. The standards govern: maximum noise levels; emissions, including those of air pollutants, toxic substances, sewage, waste, or radioactive materials; and vibration or concussions. *LMC 16.57.030 and .040.* City staff reviewed the application and other information submitted by the Applicant and noted that operation of the proposed reservoir would produce little noise, with no permanent staffing on-site, and vehicular traffic would typically be limited to one trip per day. The limited vehicle traffic accessing the site would be the only source of long-term emissions resulting from the project, and no toxic or hazardous chemicals would be stored, used, or produced during the operating life of the project. Additionally, although construction noise is exempt from the noise designation limits of Chapter 16.57 LMC, City staff noted that construction activity would be prohibited between the hours of 9:00 PM and 7:00 AM under LMC 14.38.010. *Exhibit 2, Staff Report, pages 2 and 5; Exhibit 6.*
14. All conditional uses must also ensure that adequate protection is provided for the locality where the use is to be permitted. *LMC 16.66.100.* The proposed water tower's permanent visual impacts would be partially mitigated through installation of a 15-foot landscape screen around the perimeter of the site and through the replanting of trees that would be removed in the neighboring 25-foot buffer. Additionally, the proposed water tower would be painted to avoid glare and to blend with the skyline. Site lighting would be limited to security lighting directed downward and, if necessary, shielded to prevent light impacting adjacent properties. As an essential public facility, the reservoir would be designed to meet the highest safety standards in the building code. Additional safety measures would include outfitting the reservoir with flow meters, floats, sensors, valves, and a SCADA system that would be constantly monitored and would alert City staff of any complications or emergencies. With appropriate stormwater management measures, the project would be compatible with surrounding property uses, as discussed in detail below. *Exhibit 2, Staff Report, pages 4 through 15.*

#### *Additional Considerations*

15. Chapter 14.32 LMC provides for the protection and preservation of trees and vegetation. Sound Urban Forestry, LLC, provided a Tree Removal Assessment on behalf of the

Applicant that determined 71 trees would be removed from the project site, as well as 6 trees in the 25-foot buffer owned by The Point neighborhood. The Tree Removal Assessment noted that removal of trees from the 25-foot buffer would be necessary because the trees would become hazards due to wind exposure that would be created by removing trees on the project site. The Applicant would be required to replant the tree buffer. City staff has recommended as a condition of approval that replanted trees be a minimum of 8 feet in height at the time of planting; be a fast growing, drought tolerant species; and be selected in consultation with Sound Urban Forestry. The Applicant would be required consult with the City forester regarding appropriate tree species for replanting and to show on the final landscape plans the trees that would be replanted. In accord with the requirements of Chapter 14.32 LMC, the Applicant would submit a Class IV Forest Practices Permit if tree removal exceeds 5,000 board feet of timber. *LMC 14.32.045. Exhibit 2, Staff Report, pages 5 and 6; Exhibit 9; Exhibit 11.*

16. Murraysmith, Inc., provided a preliminary stormwater drainage report on behalf of the Applicant, dated March 2020. The drainage report notes that existing stormwater runoff from the site sheet flows to the southeast and is collected through catch basins on the north side of Intelco Loop SE before discharging into Smith Lake, which is located approximately 1,000 feet west of the site. The Applicant would collect and convey stormwater runoff to an on-site detention pond through a series of ditches, catch basins, and piping. The on-site detention pond would be sized so that it could temporarily detain water released in a water tank emergency overflow event. City Water Resources Engineer Doug Christenson reviewed the Applicant's proposed stormwater management plan and determined that it would be feasible. Mr. Christenson recommended that, upon civil plan submittal, the Applicant:
- Provide erosion prevention at the pipe outfalls into the detention pond.
  - Add a shoulder transition between the pavement and pond slope.
  - Provide a cross-sectional view of the proposed detention pond, including side slopes, outset structure, and pipes into and out of the detention facility.
  - If feasible, include a vehicle-accessible ramp in the vicinity of the outlet structure to provide maintenance access to the pond floor, in accordance with section 7.5.1 of the 2016 Stormwater Design Manual.

City staff incorporated these requests in its recommended conditions of approval for the project. *Exhibit 2, Staff Report, page 9; Exhibit 10; Exhibit 17.*

17. City Development Review Engineer Tom Stiles reviewed the proposal and provided detailed notes about requirements related to water, sewer, stormwater, and transportation improvements, as well as requirements related to surveying and development guideline standards. City staff incorporated these development notes in its recommended conditions of approval for the project. *Exhibit 2, Staff Report, pages 9 through 12; Exhibit 18.*

### Testimony

18. City Senior Planner Sarah Schelling testified generally about the proposal and how it would comply with the City Comprehensive Plan, zoning ordinances, and the requirements for a conditional use permit. She explained that the proposal to construct a 1.25-million-gallon water storage tank reservoir was identified in the 2013 City of Lacey Water Comprehensive Plan as being necessary, both to provide adequate water storage and to resolve water pressure deficiencies for service in water pressure zone 337. Ms. Schelling noted that the project is considered a Type III essential public facility, which is allowed in all zoning districts with a conditional use permit. She noted that the greatest impact of the proposal would be to view corridors and that a majority of the trees would be removed from the site, as well as from a neighboring tree buffer because those trees would become hazardous following removal of the trees on-site. Ms. Schelling stated that visual impacts of the proposal would be minimized by installing a 15-foot landscape screen around the property, by replanting of the neighboring 25-foot buffer, and by painting the tower to avoid glare and to blend with the skyline. She discussed the proposed stormwater management system, noting that stormwater would be conveyed to an on-site detention pond through a series of ditches, catch basins, and piping. Ms. Schelling noted that the Applicant had reviewed the staff report and requested to strike a recommended condition requiring a licensed architect for the project because City code would require only a licensed engineer for the project. She explained that, in addition to sending notice of the open record hearing to property owners within 300 feet of the site, notice was provided to the neighboring homeowners association to ensure that all residents of the adjoining neighborhood were provided notice of the hearing. Ms. Schelling also noted that notice of the open record hearing was posted on-site and published in *The Olympian*. *Testimony of Ms. Schelling.*
19. Area resident Stewart Souders testified about his safety concerns with the project, given the proximity of the proposed water storage tower to neighboring homes, including his own. He also noted his concerns about the project's detrimental impact to home values. Mr. Souders inquired about whether the City has liability insurance in the event that the water tower causes damage to neighboring homes. He also raised concerns about noise generated during operation of the proposed water facility. *Testimony of Mr. Souders.*
20. Irina Souders testified about her concerns with noise and vibration generated during operation of the proposed water facility. She also inquired about whether the City intended to lease the tower to mobile telecommunications service providers. *Testimony of Ms. Souders.*
21. Applicant Representative Marshall Meyer, Murraysmith, Inc., testified in response to the concerns raised by Stewart and Irina Souders. He noted that, as an essential public facility, the water reservoir would be designed to the highest safety factors, materials testing during construction, and inspections. Mr. Meyer stated that the tower would be designed to withstand earthquakes and that there is not a history of water towers falling

over. He noted that the City has liability insurance and would be responsible for any property damage caused by the water facility. He further noted that the contractor has liability insurance and would be responsible for property damage caused by construction activity. Regarding concerns about the project's impacts to home values, Mr. Meyer noted that several neighborhoods have water storage facilities but stated that he has not conducted an analysis of how such facilities affect home values. He provided an overview of how the proposed water system would operate, noting that the tank would serve the 337 water pressure zone that provides water service to approximately 40 percent of city residents. Mr. Meyer stated that groundwater wells at multiple locations throughout the water system would be used to fill and replenish the reservoir but that no wells or large pumps would be located at the project site, alleviating concerns about operational noise impacts. He noted that a small generator would be used only in the event of a power outage, apart from some routine maintenance activities that would occur only during daytime hours. He stated that there are no current plans to lease the tower to mobile telecommunications providers. Mr. Meyer explained that, to provide sufficient water pressure while avoiding negative impacts of a pump system, the water reservoir must be located at a high elevation. He noted that the Applicant conducted a shadow study that determined the proposed water storage tower would not have a significant shadow impact when compared to the shadows cast by the existing trees on-site, which are of a height similar to the proposed tower. Mr. Meyer discussed security measures that would be implemented to protect the water storage facility, which would include perimeter fencing with locked gates, the absence of access ladders on the exterior of the water tank, locked doors restricting access to the concrete base of the water storage tower, and intrusion alarms. He noted that construction should take between 14 to 16 months and that the Applicant anticipates beginning construction in early 2021.

*Testimony of Mr. Meyer.*

22. City Water Resources Engineer Doug Christenson testified that DOE considers the proposed driveway and maintenance access road as non-pollution generating surfaces that are exempt from water quality treatment requirements because the roadways would be infrequently used for maintenance activities, and there is no public access to the site.

*Testimony of Mr. Christenson.*

23. City Development Review Engineer Tom Stiles requested a modification to the recommended condition of approval requiring installation of an individual roof drain infiltration system, a modification to allow for the roof drain to be tied into the site stormwater system if site conditions would not support individual downspout infiltration or dispersion. *Testimony of Mr. Stiles.*

### Staff Recommendation

24. City staff determined that the proposal would be consistent with the Comprehensive Plan, the zoning code, and other applicable codes and regulations, and with the requirements for approval of a conditional use permit if specific conditions are attached to approval. *Exhibit 2, Staff Report, pages 7 through 12.*

## **CONCLUSIONS**

### Jurisdiction

The Hearings Examiner has authority to receive and examine all available information, conduct public hearings, and prepare a record thereof, and make a recommendation to the City Council on Conditional Use Permits. *LMC 2.30.090.B.*

### Criteria for Review

#### *Conditional Use Permit*

Conditional use permits are reviewed under Chapter 16.66 LMC. In order to recommend approval of a conditional use permit, the Hearings Examiner must:

- Ensure that conditional uses comply with the environmental performance standards, as described in Chapter 16.57 LMC, and meet stricter environmental performance standards upon a finding that stricter standards are necessary and reasonable to protect adjacent properties, community health, or the general welfare. *LMC 16.66.040.A.*
- Use the design standards for permitted uses in a given district as the initial base of reference in determining the design standards for conditional uses in the same district while allowing for alternations of those design standards, including size and shape of lots, building coverage, development coverage, parking, and landscaping. *LMC 16.66.050.*
- Impose all Title 16 LMC requirements for the proposed use, as well as other conditions and safeguards necessary to secure adequate protection for the locality where the use is to be permitted. *LMC 16.66.100.*
- Recommend a time limit for beginning or completion, or both, of action on the conditional use. *LMC 16.66.100.*

The criteria for review adopted by the Lacey City Council are designed to implement the requirement of Chapter 36.70B RCW to enact the Growth Management Act. In particular, RCW 36.70B.040 mandates that local jurisdictions review proposed development to ensure consistency with City development regulations, considering the type of land use, the level of development, infrastructure, and the characteristics of development. *RCW 36.70B.040.*

### Conclusions Based on Findings

1. **With conditions, the proposal would satisfy the requirements for a Conditional Use Permit under Chapter 16.66 LMC.** The City gave reasonable notice of the application and provided opportunity to comment on the proposal. The City received one public comment expressing concerns related to water tower safety and noise impacts of the

*Findings, Conclusions, and Recommendation*  
*City of Lacey Hearings Examiner*  
*City Public Works Department CUP, No. 19-376*

proposal. The requirement that the proposed reservoir be designed under the highest safety standards in the building code, as required for essential public facilities, ensures that neighboring properties would be safely protected. Additionally, neighboring properties would also be protected through safety measures that would include outfitting the reservoir with flow meters, floats, sensors, valves, and a SCADA system that would be constantly monitored and would alert City staff if any complications or emergencies would occur. Operation of the proposed water facility would produce little noise, and a condition of approval limiting construction activity to specified hours in accordance with LMC 14.38.010 would adequately address concerns related to temporary construction noise. The City Community Development Department (CDD) reviewed the Applicant's environmental checklist and determined that the project would not have a probable significant adverse impact on the environment. CDD therefore issued a DNS. The DNS was not appealed. The project conforms to the standards, provisions, and policies of the City as expressed in its various adopted plans and ordinances.

The proposal would allow for construction of a 130-foot-tall, 1.25-million-gallon reservoir (an essential public facility) and associated improvements, including a site stormwater system, a maintenance access road, and landscaping on an approximately 0.8-acre forested parcel that is undeveloped. The project is necessary for the City to provide adequate water storage and water pressure to serve current and future water customers in the 337 water pressure zone service area.

LMC 16.66.050 requires that the design standards established for the underlying zoning district serve as the initial base of reference in determining the design standards for conditional uses in the zoning district. City Senior Planner Sarah Schelling testified that, with conditions, the project would meet all the code requirements under Chapter 16.66 LMC, which includes applicable design standards for development in the Community Office zone. The Hearings Examiner concurs with Ms. Schelling's assessment.

All conditional uses must satisfy the environmental standards of Chapter 16.57 LMC. The standards govern maximum noise levels; emissions, including those of air pollutants, toxic substances, sewage, waste, or radioactive materials; and vibration or concussions. Project plans and submitted exhibits show that the proposal would comply with these requirements.

All conditional uses must also ensure that adequate protection is provided for the locality where the use is to be permitted. *LMC 16.66.100*. The proposal would result in permanent visual impacts to surrounding property owners. These visual impacts would be partially mitigated through the installation a 15-foot landscape screen around the perimeter of the site, by replanting of trees in the neighboring 25-foot buffer, and by painting the water tank to avoid glare and to blend with the skyline. Additionally, sight lighting would be limited to security lighting directed downward and, if necessary, shielded to prevent light impacting adjacent properties. As discussed above, the reservoir

would be designed to meet the highest safety standards in the building code, and additional safety measures would ensure that neighboring properties are adequately protected. The proposal would not have traffic impacts affecting surrounding land uses because access to the facility would be limited to occasional maintenance staff.

Additionally, as an essential public facility providing water service, the proposal would maintain the necessary infrastructure to support all surrounding land uses. The City water resources engineer reviewed the Applicant's preliminary stormwater plan and determined that it was feasible. The City water resources engineer also provided recommendations that City staff incorporated into its recommended conditions of approval. The Hearings Examiner agrees with City staff's proposed conditions as detailed at the open record hearing and incorporates those conditions in his recommendation to the City Council.

Conditions unique to the proposal and those required of all development permits are necessary to ensure development meets all requirements of the municipal code and the City's other development standards, and to ensure that all concerns raised by reviewing departments and agencies have been adequately addressed. *Findings 1 – 24.*

2. **The Hearings Examiner recommends a time limit for completion of development of basic infrastructure related to the proposal.** Applicant Representative Marshall Meyer testified that work is anticipated to begin in early 2021 and should take between 14 to 16 months to complete. Accordingly, the Hearings Examiner recommends that the CUP lapse if the basic infrastructure related to the proposal has not been completed within five years. *Finding 21.*

### **RECOMMENDATION**

The Hearings Examiner recommends that the proposal for a Conditional Use Permit to construct a 130-foot-tall, 1.25-million-gallon reservoir, including a site stormwater system and site landscaping, at 4504B Intelco Loop Southeast be **APPROVED**, with conditions:<sup>2</sup>

#### Conditions Unique to this Application:

*The conditions below are those that the reviewing departments and agencies have determined are necessary to address unique aspects of this application.*

1. The project shall proceed in substantial conformance with the plans submitted on March 24, 2020, except as may be modified by the conditions herein.
2. Outside construction activities shall be limited per Chapter 14.38 LMC – Outside Construction Activities; no outside construction activities shall take place between the hours of 9:00 PM and 7:00 AM.

---

<sup>2</sup> Conditions include both legal requirements applicable to all developments and requirements to mitigate the specific impacts of this development.

3. Paint color selections shall be submitted to the city of Lacey Community and Economic Development Department for review and approval. Paint colors shall be selected to blend with the skyline and shall not reflect/glare onto adjacent properties.
4. All site lighting shall be down directed, and fitted with shields to ensure that light from the site does not cross property lines.
5. A final detailed landscaping plan shall be prepared by a licensed landscape architect, nursery person, or landscaper and submitted to the Planning Department for review and approval. The plan shall include the type, number, and location of the vegetative improvements as well as a specific timeline for completion of the improvements. Planting plans shall be included for the off-site buffer. Trees to be planted shall be a minimum of 8 feet in height at the time of planting, shall be a fast growing, drought tolerant species, and shall be selected in consultation with Sound Urban Forestry. A separate irrigation plan must also be submitted showing the location of all irrigation lines, location of sprinkler heads, and approximate coverage areas. The plans must include a note stating that the property owner is responsible for maintaining all plants in a healthy growing condition for the life of the project. All requirements of Chapter 16.80 LMC shall be satisfied (Chapter 16.80 LMC).
6. Any hazard trees removed from the adjacent vegetative buffer (within The Pointe neighborhood) shall be replaced, as required by the municipal code. In addition, the Applicant shall maintain these replacement trees for a period of three years to ensure their continued health. Following the 3-year maintenance period, the Applicant shall inform the HOA of The Pointe about its ongoing maintenance responsibilities for the vegetative buffer.
7. A Class IV Forest Practices application shall be submitted if tree removal exceeds 5,000 board feet of timber.
8. No trees shall be removed until a grading permit has been issued. The location of all saved trees and tree protection fencing shall be shown on the grading plans and civil drawings.
9. Trees to be saved shall be protected throughout all phases of construction by temporary chain link fencing on driven posts located at the edge of the critical root zone. The location of the protective fencing shall be identified on the grading plans and a detail of the fencing shall be included on the plans.
10. Prior to any site construction activities taking place, a preconstruction meeting shall be held with Sound Urban Forestry to review the location of the tree protection fencing. A note stating that a preconstruction meeting shall be held with Sound Urban Forestry shall be on the grading plans for the project. Confirmation from the Forester that the meeting

has been held shall be provided to the Community Development Department prior to the start of site construction or grading activity.

11. Prior to site construction activity the contractor completing any tree removal or logging work shall sign and submit the “Acknowledgement of Responsibilities for Professionals Doing Tree Removal in the City of Lacey”. The form shall be submitted to the Planning Department with the Class IV Forest Practices application.
12. Building, grading, and land clearing permits shall include the following note:  
When an unanticipated discovery of protected cultural material (e.g., bones, shell, stone tools, beads, ceramics, old bottles, hearths, etc.) or human remains are discovered, the property owner or contractor will immediately stop all work, completely secure the location, and contact the Washington State Department of Archaeology and Historic Preservation and other contacts as identified in the City of Lacey Standard Inadvertent Archaeological and Historic Resources Discovery Plan. The individual or representative whom the permit was issued to must send written notification of the inadvertent discovery to the city of Lacey department of community and economic development (LMC 16.53.080 Historic Preservation).
13. A Washington State licensed engineer is required for the project (Chapter 18.43 RCW).
14. The project shall comply with all of the codes and ordinances adopted by the City of Lacey, including the International Building Code, International Fire Code, International Existing Building Code and the 2017 NEC.
15. The reservoir shall be connected the existing water mains in accordance with the City of Lacey Water Comprehensive Plan.
16. An irrigation meter with a Double Check Valve Assembly backflow prevention device is suggested for all landscaped areas (DG&PWS 6.120F).
17. The existing 10-inch sewer main located in Intelco Loop shall be used as needed for disposal of reservoir water.
18. Treatment and infiltration/flow control facilities shall be constructed for stormwater associated with the site and adjacent properties currently discharging to the site (City of Lacey 2016 Stormwater Design Manual (SDM) Chapter 1).
19. The site is located in a Category I Critical Aquifer Recharge Area; enhanced treatment for stormwater is required (SDM 8.3.4).

20. Individual roof drain infiltration systems shall be installed for the reservoir roof area (SDM 7.4.10). If site conditions cannot support individual downspout infiltration, a note shall be included on the civil drawings indicating that roof drains shall be tied into the site stormwater system with a perforated connection (SDM 2.2.5 and 7.4.10).
21. The maximum depth of an infiltration facility is 20 feet below the surrounding finished (developed) ground elevation, in order to provide for long-term maintenance access to the facility (SDM 7.3).
22. The Preliminary Stormwater Site Plan was review and determined complete for first submittal. The following items shall be addressed in subsequent submittals with the civil drawings:
  - a) Erosion prevention at the pipe outfalls into the detention pond shall be provided
  - b) The detention pond slopes appear to begin at the edge of the pavement; a shoulder transition between the pavement and the pond slope should be added.
  - c) Provide a cross-sectional view of the detention pond, including the side slopes, outlet structure, and pipes into and out of the detention facility.
  - d) A maintenance access ramp to the pond floor is typically required per section 7.5.1 of the 2016 Stormwater Design Manual. If feasible, a vehicle-accessible ramp near the outlet structure shall be included.

#### **General Conditions**

*The conditions below are summaries of ordinances and standards that apply to approval of this application regardless of any specific impacts of this proposed development. The list is intended as a courtesy notice and not as an exhaustive list of legal requirements that may apply to an approval of the application. The list is also a summary of the legal requirement; if there is a conflict between the summary and the ordinance, the language of the ordinance controls.*

23. A note shall be placed on the face of the landscaping and irrigation plans stating that any irrigation lines placed within tree protection zones established for the project must be installed in such a manner as to not cause damage to the root protection zone, such as by cutting roots, digging trenches, operation of machinery, etc. Special care must be taken (hand digging trenches, designing lines to stay out of these areas where possible, etc.) to ensure damage to the trees does not occur. In the event damage to these areas does occur, the city may require, at their discretion, replacement of the comparable landscape value of the trees damaged or other means to make up that loss (Chapter 16.80 LMC).
24. All applicable requirements of the City Zoning Code shall be satisfied (LMC Title 16).
25. The Applicant/developer shall be responsible for obtaining all applicable permits required for the project, including National Pollutant Discharge Elimination System Permit

*Findings, Conclusions, and Recommendation  
City of Lacey Hearings Examiner  
City Public Works Department CUP, No. 19-376*

(NPDES), and any others. These permits will require additional review time from the appropriate agencies.

26. Water system improvements shall meet the requirements of the City of Lacey, the Coordinated Water System Plan (CWSP), Department of Health (DOH), City of Lacey Water System Plan, AWWA, Department of Ecology, Thurston County Environmental Health, and the City of Lacey Fire Code Official's standards (DG&PWS, Water 6.010).
27. Water mains shall be extended throughout the project to satisfy the City of Lacey Water Comprehensive Plan requirements. Water mains shall be extended throughout the site to assure fire, water quality and domestic requirements can be satisfied. Water mains shall be extended on the north or east sides of roadways or drives aisles six feet off the centerline (DG&PWS, Water 6.020).
28. Sanitary sewer improvements associated with this project shall meet the requirements of the City of Lacey Comprehensive Sanitary Sewer Plan, Thurston County Health Department (DOH), the LOTT Cleanwater Alliance and the Department of Ecology (DG&PWS, Sewer 7A.010).
29. The project shall comply with the City of Lacey 2016 Stormwater Design Manual (LMC 14.27). Stormwater drainage and erosion control submittals shall be in conformance with the formatting and content requirements described in Chapter 3 of the 2016 Stormwater Design Manual.
30. A final Stormwater Site Plan, including a drainage report and drainage plans in conformance with the 2016 Stormwater Design Manual requirements, shall be submitted prior to final Public Works civil plan approval. The report shall include the following key elements: the project engineers certification; descriptions of how each of the core requirements is being addressed; construction SWPPP; basin map and plan drawings; hydrologic modeling inputs and results (including the WWHM 2012 Data files produced with the model); summary data of sub-basin areas, design calculations, and facility sizing; soils report and infiltration analysis; soil management plan; maintenance agreement/covenant; and a stormwater facilities maintenance plan manual (SDM 2.2.1).
31. The project shall retain, disperse, and infiltrate stormwater on-site to the maximum extent feasible. Design of infiltration facilities requires site infiltration analysis to determine wet-season soil and groundwater conditions and to establish a long-term design infiltration rate (SDM 2.2.5 & 7.2).
32. A Construction Stormwater Pollution Prevention Plan (SWPPP) shall be submitted to and approved by the City prior to the start of site work or construction of the project. A complete SWPPP consists of both a narrative report and a temporary erosion and sediment control plan drawing. Each of the 13 SWPPP elements identified in Chapter 5

of the City of Lacey 2016 Stormwater Design Manual shall be addressed and included in the construction SWPPP. If site conditions render any SWPPP elements unnecessary, exemptions for each element shall be clearly justified in the narrative report.

33. A Stormwater Facility Maintenance Manual per chapter 3 of the City of Lacey 2016 Stormwater Design Manual shall be submitted to an approved by the City of Lacey. The maintenance manual shall be included in the drainage report as part of the stormwater site plan. The maintenance manual shall also be prepared as a stand-alone document for the post development facility owner(s). The plan shall be submitted to and approved by the City prior to civil drawing approval.
34. Clearing, grading and other soil disturbing activities shall be prohibited between October 1 through April 30 unless shown to the satisfaction of the City of Lacey that sediment-laden runoff will be prevented from leaving the site (SDM 5.2.3).
35. Access shall be provided to the site as determined and approved by the City of Lacey. All access points shall meet minimum access spacing, minimum corner clearance, sight distance and minimum or maximum width requirements as outlined in the Development Guidelines and Public Works Standards (DG&PWS, Transportation 4B.025).
36. The existing pedestrian access point and site access to Intelco Loop and the site access point shall be coordinated so as to not have two access points immediately adjacent to each other.
37. Traffic mitigation as determined by a commercial traffic generation worksheet shall be satisfied. Conditions of LMC 14.21 shall be satisfied.
38. The City of Lacey Coordinate System is a ground scale coordinate system derived from the Washington Coordinate System, NAD 83/91. Units are expressed in feet. Data can be obtained from the Lacey Public Works Department (DG&PWS 3.025).
39. All City of Lacey Vertical Datum has elevations referenced to the National Geodetic Vertical Datum of 1929 (NGVD29). Units are expressed in feet. A benchmark listing can be obtained from the Lacey Public Works Department (DG&PWS 3.025).
40. All improvements shall satisfy the City of Lacey Development Guidelines and Public Works Standards in place at the time of complete application as determined by the City of Lacey Community and Economic Development Department.

41. All Public Works improvements shall be designed by an engineer licensed in the state of Washington and submitted to the City of Lacey Public Works Department for review and approval (DG&PWS 3.040).

RECOMMENDED this 2<sup>nd</sup> day of July 2020.

A rectangular box containing a handwritten signature in black ink. The signature appears to be "Andrew M. Reeves" written in a cursive, stylized font.

---

ANDREW M. REEVES  
Hearings Examiner  
Sound Law Center

## LIST OF EXHIBITS

City of Lacey Project #19-376; Terry Cargil Reservoir Conditional Use Permit Application

| <u>Exhibit #</u> | <u>Description</u>                                                                                 |
|------------------|----------------------------------------------------------------------------------------------------|
| 1                | List of Exhibits                                                                                   |
| 2                | Staff Report                                                                                       |
| 3                | General Land Use Application                                                                       |
| 4                | Conditional Use Permit Supplemental Application                                                    |
| 5                | Terry Cargil Reservoir CUP Application Questions & Answers                                         |
| 6                | SEPA Environmental Checklist dated March 24, 2020                                                  |
| 7                | Terry Cargil Reservoir Preliminary Site Plans                                                      |
| 8                | Preliminary Landscape Plan                                                                         |
| 9                | Terry Cargil Reservoir Site Perspectives                                                           |
| 10               | Stormwater Report prepared by Murraysmith, Inc., March 2020                                        |
| 11               | Terry Cargil Reservoir WA19EL Tree Removal Assessment by Sound Urban Forestry dated March 10, 2020 |
| 12               | Agency Routing Sheet dated April 9, 2020                                                           |
| 13               | Notice of Application issued April 9, 2020                                                         |
| 14               | Legal Notice of Application, published April 13, 2020                                              |
| 15               | Email from Squaxin Island Tribe dated April 14, 2020                                               |
| 16               | Comment letter from Brad Beach, Nisqually Tribe, dated April 15, 2020                              |
| 17               | Comments from Doug Christenson, April 24, 2020                                                     |
| 18               | Comments from Tom Stiles, Public Works Department – Development Review dated April 13, 2020        |
| 19               | Comments from the Department of Ecology, dated April 24, 2020                                      |
| 20               | SEPA Determination of Non Significance issued May 26, 2020                                         |
| 21               | Notice of Public Hearing, mailed June 4, 2020                                                      |
| 22               | Legal notice of hearing, published June 4, 2020                                                    |
| 23               | Figure 1.12 – Water System Schematic – from the Water System Comprehensive Plan                    |
| 24               | Certification of Notice                                                                            |

# STAFF REPORT

Date: June 8, 2020  
To: City of Lacey Hearings Examiner  
From: City of Lacey Community & Economic Development Department  
Subject: City of Lacey Project #19-376; Terry Cargil Water Reservoir

## I. GENERAL INFORMATION

- A. Applicant/Property Owner:  
City of Lacey  
420 College Street Southeast
- B. Authorized Representative:  
Puna Clark, P.E., City of Lacey Water Resources  
(360)459-4494  
[pclarke@ci.lacey.wa.us](mailto:pclarke@ci.lacey.wa.us)

## II. DESCRIPTION OF PROPOSAL

Construction of a 130-foot tall, elevated water tank, capable of storing 1.25 million gallons of water for use by the City of Lacey Water customers. Associated improvements include installation of a site stormwater system and site landscaping.

## III. ADDRESS OF SUBJECT PARCEL

4504B Intelco Loop Southeast, Lacey, Washington 98503. The parcel number is 5805000601 and is located in Lacey, Thurston County, Washington.

## IV. SITE PLAN INFORMATION

Project Size: 34,848 square feet  
Water: City of Lacey  
Sewer: City of Lacey  
Power/Natural Gas: Puget Sound Energy  
Fire Protection: Lacey Fire District 3

**Site Characteristics:** The property is an undeveloped, forested site, approximately .80 acres in size. The site is generally flat; however, it does slope gently downward from east to west. The site is primarily covered with native trees and shrubs.

**Surrounding Land Uses:** The property is surrounded by various different land uses. To the north of the property is The Pointe, a residential subdivision consisting of single-family townhome units on individual lots; west is a small commercial property with one multi-tenant building and two additional properties available for development; to the south is a recently developed childcare center; and to the east and southeast is undeveloped land zoned Community Office.

**Access:** Access to the site will be from a drive extending onto the site from Intelco Loop. An existing curb cut and pedestrian trail link The Pointe neighborhood to Intelco Loop. This trail is on the west property line of the project site and there is potential for conflict with the drive aisle for the reservoir. Conflicts with the two access points will need to be resolved during site construction to ensure pedestrian safety and that site security can be maintained after the project is constructed.

**Zoning:** The site is zoned Community Office. The Community Office zone permits a variety of commercial, manufacturing, office and professional service uses, as well as a limited amount of retail and residential use. The chapter is governed by Lacey Municipal Code (LMC) 16.41. Conditional uses and essential public facilities are permitted in the Community Office zone through the quasi-judicial review process.

**Compatibility and Impact of Proposal on Surrounding Area/Probable Characteristics of Development:**

A water tower is a quiet neighbor, there is no permanent staffing on-site, and the site will produce very limited amounts of vehicular traffic; typically limited to one trip per day. There will however be a visual impact related to the elevated tower. The site will be converted from a forested parcel to a 130-foot elevated water tank. Steps can be taken to minimize impacts with plantings and with painting of the facility to ensure that there is not glare, however these measures are not expected to fully mitigate visual impacts related to the tower.

## **V. ENVIRONMENTAL EVALUATION**

The environmental checklist for this project has been reviewed and a determination of non-significance was issued on May 26, 2020. The Optional DNS process was used and the comment period for the project began on April 9, 2020. Notice of the comment period was given by posting the site and publishing a notice in The Olympian. The City received comments on the environmental checklist and the application materials from the Department of Ecology and from internal City Departments. These comments are included in this report as exhibits. A Determination of Nonsignificance (DNS) was issued in accordance with the procedures of WAC 197-11-355 and RCW 43.21C. The DNS is attached as an exhibit.

## **VI. APPLICABLE COMPREHENSIVE GOALS AND POLICIES**

**The City of Lacey Comprehensive Plan:** This document, known as the comprehensive land use plan, was prepared as a joint planning document by the City of Lacey and Thurston County for Lacey and the Lacey Urban Growth Area. There are other general policies in the Comprehensive Land Use Plan, which could apply, but the issues they cover are specifically detailed in the Lacey

Zoning Ordinance, which is reviewed in the next section VIII. The following sections of the Comprehensive Plan apply to this proposal:

#### **Framework Land Use Policies**

- Policy G: Plan to accommodate a projected 2035 City population of 53,090 and potential annexations of areas within the UGA

#### **Utilities and Capital Facilities Goals and Policies:**

- Goal 1: Ensure that existing utility customers, and future customers, are adequately served by water, sewer and stormwater utility services that consider both growth demand projections and asset management.
  - Policy A: provision of utilities shall be consistent with policies of the land use element, further the intent of GMA strategies, and be consistent with county-wide planning policies.
- Water Resources – Goal 1: Ensure the long-term protection and preservation of both the quality and quantity of groundwater and surface waters for all uses.
  - Policy A: ensure that policies, requirements, and standards promote compliance with the Federal Clean Water Act and source water protection provisions of the Safe Drinking Water Act.
  - Regularly review and update City of Lacey requirements, standards, and Water, Wastewater and Stormwater Comprehensive Plans, as needed, to reflect best available science and applicable state and federal regulations.

#### **Essential Public Facilities Goals and Policies:**

- Goal 1: Minimize impacts associated with the siting of essential public facilities and provide appropriate standards for facilities that will protect neighborhoods and the community.
  - Policy A: Maintain consistency with CWPP's and state law for siting requirements associated with essential public facilities.
  - Policy B: Continue to provide for essential public facilities through the conditional use permitting process to provide for meaningful review, early public input, impacts to critical areas, and mitigation of probable significant adverse impacts.

### **VII. APPLICABLE MUNICIPAL CODE STANDARDS**

The following list identifies the applicable sections of the Lacey Municipal Code that Planning staff relied upon when evaluating this proposal for land use approval:

- Title 14 – Buildings and Construction – all applicable code sections including:
  - 14.24 Environmental Policy
  - 14.27 Stormwater Management
  - 14.32 Tree and Vegetation Protection and Preservation
  - 14.38 Outside Construction Activities
- Title 16 – Zoning
  - 16.41 Community Office

- 16.57 Environmental Performance Standards
- 16.80 Landscaping Requirements
- 16.66 Conditional Uses and Permits

## **VIII. NOTIFICATION**

The application for Conditional Use Permit was received on March 26, 2020, and was deemed complete pursuant to RCW 36.70B.070 on April 9, 2020. The Notice of Complete Application had a 14-day comment period that ended on April 24, 2020. A notice was published in The Olympian and the site was posted with the notice of complete application at the entrance drive to the site. These notices are attached to this report as exhibits. The City received agency comments on the application but no public comments were received during the application review period. Agency comments are attached to this report as exhibits and where appropriate included as conditions of approval.

Written notice of the public hearing was sent to all property owners within 300 feet of the site, and notice was published in The Olympian on June 4, 2020. Notice was posted on-site on June 8, 2020.

## **IX. COMMUNITY & ECONOMIC DEVELOPMENT DEPARTMENT ANALYSIS**

In review of the application, staff evaluated several items related to the proposal. Summarized below is an evaluation of the conditional use permit and essential public facilities determination and impacts of the facility on adjacent properties.

### **Conditional Use Permit Project Review**

The City of Lacey Public Works Department requests approval to construct a water reservoir approximately 130 feet tall with a storage capacity of 1.25 million gallons to serve water pressure zone 337. The City of Lacey potable water system includes seven welded steel standpipe storage tanks, in seven water pressure zones. Due to population growth and increased water demand, improvements to the City's water infrastructure are required. The City's Water System Comprehensive Plan (February 2013), identified the need for a new reservoir for storage and pressure deficiencies in the 337 zone. The 337 pressure zone includes all of east, south and southwest Lacey, including water customers within the Urban Growth Boundary; a pressure zone map is included as an exhibit. In 2008, the City purchased property located at 4504B Intelco Loop SE for the new reservoir. The site was chosen because of its ground elevation within the zone; the elevation, coupled with the tower height of a minimum of 130 feet, will help to ensure adequate water supply and to maintain and stabilize pressures for the water customers throughout the pressure zone.

The reservoir property is located in the Community Office zoning district and has been classified as an essential public facility per LMC 16.66.060; essential public facilities are public or privately owned or operated facilities, that serve a public purpose but are often difficult to site. As an essential public facility, the project is permitted to locate in any zoning district following the conditional use permit application review process.

Per LMC 16.66.060, essential public facilities are separated into three types; Type I, Type II, and Type III. The type of essential public facility is determined by the City and is based on the level of impact of the proposed facility. Types I and II essential public facilities typically affect citizens over a large geographic area, often across multiple jurisdictions. These types of essential public facilities require a higher-level review, alternative sites analysis, and additional early public notification. The proposed project has been classified as a Type III essential public facility because it mainly affects individuals within the City of Lacey or with those with City of Lacey water accounts. Early notification is not required for Type III facilities; however, the applicant did hold an informational meeting at the City of Lacey prior to submittal of the application. Several members of the adjacent residential neighborhood, as well as an adjacent commercial property owner, attended the meeting to voice concerns. Those concerns ranged from construction noise, to property value impacts, tower safety, and neighborhood compatibility. In response to the questions that came up at the public meeting, the Public Works Department prepared a supplemental information sheet that was submitted with the application. That supplemental sheet provides information related to how the reservoir will be paid for, who will benefit, how the property was selected, construction timelines, tank appearance, and construction and safety standards. That information sheet is included as an exhibit.

#### **Construction Noise Impacts**

As noted, the City of Lacey Public Works Department held a public meeting regarding the project and received comments on noise associated with construction of the facility as well as noise associated with periodic maintenance. Construction noise is a temporary impact that is exempt from environmental noise designation limits specified in LMC 16.57 'Environmental Performance Standards', however, hours of construction activity on site can be limited to the hours permitted under LMC 14.38 – Outside Construction Activities. This code section limits the hours of construction and prohibits outside construction activities between the hours of 9pm and 7am in areas abutting residentially zoned properties. Staff has recommended a condition that would ensure outside construction activities will be limited to the hours prescribed by LMC 14.38. After construction, maintenance of the facility would typically occur during normal working hours and would be subject to requirements of the Lacey Municipal Code.

#### **Neighborhood Compatibility and Long Term Visual Impacts**

Although it will be a quiet neighbor once it is constructed, the reservoir will have permanent visual impacts on the surrounding properties. The site is currently forested and most of the trees will need to be removed for construction. In addition to on-site tree removal, trees within a 25-foot forested buffer, owned by The Pointe neighborhood, on the north side of the reservoir site will need to be removed because they are in poor condition and will become hazardous when the reservoir property is cleared. This tree removal will leave very limited mature vegetation for screening. These visual impacts can be partially mitigated by replanting on the site. The applicant is proposing to install a 15-foot landscape screen around the perimeter of the site per the requirements of the Lacey Municipal Code chapter 16.80. The City will also be required to replant the tree buffer between the neighborhood and the facility with trees that will grow overtime to reduce the visual impact. The replanting will not conceal the tower,

however over the long term it is expected that trees will grow and help to provide a visual buffer. Staff recommends the trees planted within the buffer be at least eight feet tall at the time of planting and that they are drought tolerant and fast growing. Trees to be planted will need to be shown on final landscape plans prepared for the property. Consultation with the City Forester regarding appropriate tree species for replanting will be required.

In addition to landscape improvements and buffer plantings, paint color can also be used to mitigate potential glare from the tower. The tower will be painted a color that blends with the skyline and that does not produce glare towards adjacent land uses. Sight lighting will be limited to security lighting that will be down directed, and fitted with shields, if necessary, to prevent light from illuminating adjacent properties.

#### **Construction standards and reservoir safety**

In addition to questions related to noise and visual impacts, questions regarding structure safety were raised by adjacent property owners. The reservoir is being designed to all current applicable seismic and structural standards required for such a structure. In addition, Murraysmith, the project design professional, designs water tanks (reservoirs) to the highest standard in the building code – essential public facilities. This is the same building category as hospitals and police stations, with the same structural design safety factors, which are significantly higher safety factors than residential homes.

In addition to construction to the highest building code standards, the reservoir will be equipped with features that will alert the City staff of leaks or potential reservoir failures. The reservoir will be outfitted with flow meters, floats, sensors, valves, and SCADA (Supervisory Control and Data Acquisition) which control and monitor the water flow and level in the reservoir. The SCADA system is monitored by City Water Operators 24 hours 7 days a week and the system will alert City staff if there are complications or emergencies. It is important to note that the City has not experienced any leaks at any reservoirs resulting in any damage to surrounding property.

Following review of the proposal, with particular focus on the items discussed above, and as further conditioned below, staff finds the proposal is consistent with the goals and policies of the 2016 Lacey Comprehensive Plan and with the provisions of Lacey Municipal Code. Recommended conditions have been included which are intended to address and mitigate impacts related to the reservoir and outside construction activities. Conditions are also included to ensure that all requirements of the Lacey Municipal Code and the Development Guidelines and Public Works Standards are met during project review and construction.

#### **X. HEARING EXAMINER AUTHORITY**

The Hearings Examiner has the responsibility and authority to recommend action to the City Council on Conditional Use permits. Pursuant to section 2.30.140 of the Lacey Municipal Code, the Examiner has the authority to render a decision on the application which may be to grant, deny, or grant with such conditions, limitations, modifications and restrictions as the Examiner

finds necessary to make the application compatible with its environment, the comprehensive plan, other official policies and objectives and land use regulatory enactments

#### **XI. SUMMARY OF STAFF ANALYSIS**

Staff finds that the proposed permits are consistent with the City Comprehensive Plan, the City Zoning Code, and other applicable codes and regulations provided that the conditions recommended below, under Section XII, are implemented.

#### **XII. STAFF RECOMMENDATIONS CONCERNING ACTION ON THE PROPOSED APPLICATION**

Based upon the above analysis, city staff recommends approval of the Conditional Use permits application. The project shall proceed in substantial conformance with the plans on file, except as modified by the conditions below:

#### **CONDITIONS OF PROJECT APPROVAL**

##### **Conditions unique to this application:**

##### **Community and Economic Development Department:**

##### **Planning Department Review**

1. The project shall proceed in substantial conformance with the plans submitted on March 24, 2020, except as may be modified by the conditions herein.
2. Outside construction activities shall be limited per LMC 14.38 – Outside Construction Activities; no outside construction activities shall take place between the hours of 9pm and 7am.
3. Paint color selections shall be submitted to the city of Lacey Community and Economic Development Department for review and approval. Paint colors shall be selected to blend with the skyline and shall not reflect/glare onto adjacent properties.
4. All site lighting shall be down directed, and fitted with shields to ensure that light from the site does not cross property lines.
5. A final detailed landscaping plan shall be prepared by a licensed landscape architect, nursery person, or landscaper and submitted to the Planning Department for review and approval. The plan shall include the type, number, and location of the vegetative improvements as well as a specific time line for completion of the improvements. Planting plans shall be included for the off-site buffer. Trees to be planted shall be a minimum of 8 feet in height at the time of planting, shall be a fast growing, drought tolerant species, and shall be selected in consultation with Sound Urban Forestry. A separate irrigation plan must also be submitted showing the location of all irrigation lines, location of sprinkler heads, and approximate coverage areas. The plans must include a note stating that the property owner is responsible for maintaining all plants in

a healthy growing condition for the life of the project. All requirements of Chapter 16.80 of the Zoning Code shall be satisfied. (LMC 16.80)

6. A Class IV Forest Practices application shall be submitted if tree removal exceeds 5,000 board feet of timber.
7. No trees shall be removed until a grading permit has been issued. The location of all save trees and tree protection fencing shall be shown on the grading plans and civil drawings.
8. Trees to be saved shall be protected throughout all phases of construction by temporary chain link fencing on driven posts located at the edge of the critical root zone. The location of the protective fencing shall be identified on the grading plans and a detail of the fencing shall be included on the plans.
9. Prior to any site construction activities taking place, a preconstruction meeting shall be held with Sound Urban Forestry to review the location of the tree protection fencing. A note stating that a preconstruction meeting shall be held with Sound Urban Forestry shall be on the grading plans for the project. Confirmation from the Forester that the meeting has been held shall be provided to the Community Development Department prior to the start of site construction or grading activity.
10. Prior to site construction activity the contractor completing any tree removal or logging work shall sign and submit the "Acknowledgement of Responsibilities for Professionals Doing Tree Removal in the City of Lacey". The form shall be submitted to the Planning Department with the Class IV Forest Practices application.
11. Building, grading, and land clearing permits shall include the following note:  
When an unanticipated discovery of protected cultural material (e.g., bones, shell, stone tools, beads, ceramics, old bottles, hearths, etc.) or human remains are discovered, the property owner or contractor will immediately stop all work, completely secure the location, and contact the Washington State Department of Archaeology and Historic Preservation and other contacts as identified in the City of Lacey Standard Inadvertent Archaeological and Historic Resources Discovery Plan. The individual or representative whom the permit was issued to must send written notification of the inadvertent discovery to the city of Lacey department of community and economic development (LMC 16.53.080 Historic Preservation).

#### Building Department Review

12. A Washington State licensed architect and engineer are required for the project (RCW 18.43).
13. The project shall comply with all of the codes and ordinances adopted by the City of Lacey, including the International Building Code, International Fire Code, International Existing Building Code and the 2017 NEC.

## **Department of Public Works**

### **Specific Water Improvements**

14. The reservoir shall be connected the existing water mains in accordance with the City of Lacey Water Comprehensive Plan.
15. An irrigation meter with a Double Check Valve Assembly backflow prevention device is suggested for all landscaped areas (DG&PWS 6.120F).

### **Specific Sewer Improvements**

16. The existing 10-inch sewer main located in Intelco Loop shall be used as needed for disposal of reservoir water.

### **Specific Stormwater Improvements**

17. Treatment and infiltration/flow control facilities shall be constructed for stormwater associated with the site and adjacent properties currently discharging to the site (City of Lacey 2016 Stormwater Design Manual (SDM) Chapter 1).
18. The site is located in a Category I Critical Aquifer Recharge Area; enhanced treatment for stormwater is required (SDM 8.3.4).
19. Individual roof drain infiltration systems shall be installed for the reservoir roof area (SDM 7.4.10).
20. The maximum depth of an infiltration facility is 20 feet below the surrounding finished (developed) ground elevation, in order to provide for long-term maintenance access to the facility (SDM 7.3).
21. The Preliminary Stormwater Site Plan was review and determined complete for first submittal. The following items shall be addressed in subsequent submittals with the civil drawings:
  - a) Erosion prevention at the pipe outfalls into the detention pond shall be provided
  - b) The detention pond slopes appear to begin at the edge of the pavement; a shoulder transition between the pavement and the pond slope should be added.
  - c) Provide a cross-sectional view of the detention pond, including the side slopes, outlet structure, and pipes into and out of the detention facility.
  - d) A maintenance access ramp to the pond floor is typically required per section 7.5.1 of the 2016 Stormwater Design Manual. If feasible, a vehicle-accessible ramp near the outlet structure shall be included.

### **General Conditions**

The conditions below are summaries of ordinances and standards that apply to approval of this application regardless of any specific impacts of this proposed development. The list is

intended as a courtesy notice and not as an exhaustive list of legal requirements that may apply to an approval of the application. The list is also a summary of the legal requirement; if there is a conflict between the summary and the ordinance, the language of the ordinance controls.

**Community and Economic Development Department:**

**General Planning Department Requirements**

22. A note shall be placed on the face of the landscaping and irrigation plans stating that any irrigation lines placed within tree protection zones established for the project must be installed in such a manner as to not cause damage to the root protection zone, such as by cutting roots, digging trenches, operation of machinery, etc. Special care must be taken (hand digging trenches, designing lines to stay out of these areas where possible, etc.) to ensure damage to the trees does not occur. In the event damage to these areas does occur, the city may require, at their discretion, replacement of the comparable landscape value of the trees damaged or other means to make up that loss. (LMC 16.80)
23. All applicable requirements of the City Zoning Code shall be satisfied (LMC Title 16).
24. The applicant/developer shall be responsible for obtaining all applicable permits required for the project, including National Pollutant Discharge Elimination System Permit (NPDES), and any others. These permits will require additional review time from the appropriate agencies.

**Public Works**

**General water requirements**

25. Water system improvements shall meet the requirements of the City of Lacey, the Coordinated Water System Plan (CWSP), Department of Health (DOH), City of Lacey Water System Plan, AWWA, Department of Ecology, Thurston County Environmental Health, and the City of Lacey Fire Code Official's standards (DG&PWS, Water 6.010).
26. Water mains shall be extended throughout the project to satisfy the City of Lacey Water Comprehensive Plan requirements. Water mains shall be extended throughout the site to assure fire, water quality and domestic requirements can be satisfied. Water mains shall be extended on the north or east sides of roadways or drives aisles six feet off the centerline (DG&PWS, Water 6.020).

**General sewer requirements**

27. Sanitary sewer improvements associated with this project shall meet the requirements of the City of Lacey Comprehensive Sanitary Sewer Plan, Thurston County Health Department (DOH), the LOTT Cleanwater Alliance and the Department of Ecology (DG&PWS, Sewer 7A.010).

**General stormwater requirements**

28. The project shall comply with the City of Lacey 2016 Stormwater Design Manual (LMC 14.27). Stormwater drainage and erosion control submittals shall be in conformance with the formatting and content requirements described in Chapter 3 of the 2016 Stormwater Design Manual.
29. A final Stormwater Site Plan, including a drainage report and drainage plans in conformance with the 2016 Stormwater Design Manual requirements, shall be submitted prior to final Public Works civil plan approval. The report shall include the following key elements: the project engineers certification; descriptions of how each of the core requirements is being addressed; construction SWPPP; basin map and plan drawings; hydrologic modeling inputs and results (including the WWHM 2012 Data files produced with the model); summary data of sub-basin areas, design calculations, and facility sizing; soils report and infiltration analysis; soil management plan; maintenance agreement/covenant; and a stormwater facilities maintenance plan manual (SDM 2.2.1).
30. The project shall retain, disperse, and infiltrate stormwater on-site to the maximum extent feasible. Design of infiltration facilities requires site infiltration analysis to determine wet-season soil and groundwater conditions and to establish a long-term design infiltration rate (SDM 2.2.5 & 7.2).
31. A Construction Stormwater Pollution Prevention Plan (SWPPP) shall be submitted to and approved by the City prior to the start of site work or construction of the project. A complete SWPPP consists of both a narrative report and a temporary erosion and sediment control plan drawing. Each of the 13 SWPPP elements identified in Chapter 5 of the City of Lacey 2016 Stormwater Design Manual shall be addressed and included in the construction SWPPP. If site conditions render any SWPPP elements unnecessary, exemptions for each element shall be clearly justified in the narrative report.
32. A Stormwater Facility Maintenance Manual per chapter 3 of the City of Lacey 2016 Stormwater Design Manual shall be submitted to and approved by the City of Lacey. The maintenance manual shall be included in the drainage report as part of the stormwater site plan. The maintenance manual shall also be prepared as a stand-alone document for the post development facility owner(s). The plan shall be submitted to and approved by the City prior to civil drawing approval.
33. Clearing, grading and other soil disturbing activities shall be prohibited between October 1 through April 30 unless shown to the satisfaction of the City of Lacey that sediment-laden runoff will be prevented from leaving the site (SDM 5.2.3).

General transportation requirements

34. Access shall be provided to the site as determined and approved by the City of Lacey. All access points shall meet minimum access spacing, minimum corner clearance, sight distance and minimum or maximum width requirements as outlined in the Development Guidelines and Public Works Standards (DG&PWS, Transportation 4B.025).

35. The existing pedestrian access point and site access to Intelco Loop and the site access point shall be coordinated so as to not have two access points immediately adjacent to each other.
36. Traffic mitigation as determined by a commercial traffic generation worksheet shall be satisfied. Conditions of LMC 14.21 shall be satisfied.

#### General Surveying Requirements

37. The City of Lacey Coordinate System is a ground scale coordinate system derived from the Washington Coordinate System, NAD 83/91. Units are expressed in feet. Data can be obtained from the Lacey Public Works Department (DG&PWS 3.025).
38. All City of Lacey Vertical Datum has elevations referenced to the National Geodetic Vertical Datum of 1929 (NGVD29). Units are expressed in feet. A benchmark listing can be obtained from the Lacey Public Works Department (DG&PWS 3.025).

#### Other Requirements

39. All improvements shall satisfy the City of Lacey Development Guidelines and Public Works Standards in place at the time of complete application as determined by the City of Lacey Community and Economic Development Department.
40. All Public Works improvements shall be designed by an engineer licensed in the state of Washington and submitted to the City of Lacey Public Works Department for review and approval (DG&PWS 3.040).

RECEIVED

MAR 26 2020



Shaping  
our community  
together

CITY OF **LACEY**

DEPARTMENT OF COMMUNITY & ECONOMIC DEVELOPMENT  
420 College Street SE, Lacey, WA 98503 (360) 491-5642

BY \_\_\_\_\_

OFFICIAL USE ONLY

Date: \_\_\_\_\_  
Case #: 19-376  
Received By: CC  
Planner: SARAH  
Related Cases: \_\_\_\_\_

## GENERAL LAND USE APPLICATION

**Please Identify Supplemental Forms Accompanying This Application:**

- |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <input type="checkbox"/> Binding Site Plan (Preliminary)<br><input type="checkbox"/> Binding Site Plan (Final)<br><input type="checkbox"/> Boundary Line Adjustment<br><input checked="" type="checkbox"/> Conditional Use Permit<br><input checked="" type="checkbox"/> <b>Environmental Checklist (SEPA) (must include 2 CD's containing .pdf copies of all submittal materials, including applications)</b><br><input type="checkbox"/> Joint Aquatic Resources Permit Application (JARPA)<br><input type="checkbox"/> Landclearing Permit/Class IV Forest Practices<br><input type="checkbox"/> Limited Administrative Review (separate application form is <u>not</u> required) | <input type="checkbox"/> Planned Residential Development (Preliminary)<br><input type="checkbox"/> Planned Residential Development (Final)<br><input type="checkbox"/> Short Subdivision (Preliminary)<br><input type="checkbox"/> Short Subdivision (Final)<br><input checked="" type="checkbox"/> Site Plan Review<br><input type="checkbox"/> Street Merchant Supplemental<br><input type="checkbox"/> Subdivision (Preliminary)<br><input type="checkbox"/> Subdivision (Final)<br><input type="checkbox"/> Townhouse Development Permit<br><input type="checkbox"/> Wetland Development Permit<br><input type="checkbox"/> Woodland District Supplemental |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

**\*Applicant/Property Owner Information**

Owner: City of Lacey  
 Mailing Address: 420 College Street SE, Lacey, WA 98503  
 Phone Number(s): 360-459-4494  
 E-mail Address: pclarke@ci.lacey.wa.us  
 Signature: *Puna Clarke*  
*\* For projects with multiple owners, attach a separate sheet with above owner information and signatures.*

**Applicant:** Puna Clarke, P.E.

Mailing Address: 420 College Street SE, Lacey, WA 98503  
 Phone Number(s): 360-459-4494  
 E-mail Address: pclarke@ci.lacey.wa.us

**\*Authorized Representative:** Puna Clarke, P.E.

Mailing Address: 420 College Street SE, Lacey, WA 98503  
 Phone Number(s): 360-459-4494  
 E-mail Address: pclarke@ci.lacey.wa.us

*\*The authorized representative will be the primary staff contact for all project related questions and correspondence.*



**Project Information**Project Name: Terry Cargil ReservoirProject Description: Design and construct new elevated water reservoir and related infrastructure for the City of Lacey. Project includes the reservoir and stormwater detention pond and related infrastructure necessary for this project.**Property Description**Site Address: 4504B Intelco Loop SE, Lacey WA 98503Full Legal Description of Subject Property (attached ☐):Section 32 Township 18 Range 1W Quarter NW SE Plat LACEY CORPORATE CENTER REPLAT LT 6 Document 024/067PER DEED 3982260 THAT PTN OF LT 6 DAF: W 180F LYING NLY OF FOLL DESC LN: BAP ONSection: 32 Township: 18 Range: 1WAssessor Tax Parcel Number(s): 58050000601Zoning District: CO-Community OfficeShoreline Designation (if applicable): Not ApplicableArea of Project Site (in square feet if less than 1 acre; in acres if greater): 34,848 SF

Critical Areas on or near Site (show areas on site plan):

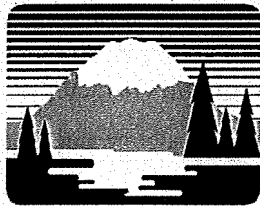
- |                                                                                        |                                                                                           |
|----------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------|
| <input checked="" type="checkbox"/> None                                               | <input type="checkbox"/> Wetland                                                          |
| <input type="checkbox"/> Creek or stream (name): _____                                 | <input type="checkbox"/> Steep slopes/draw/gully/ravine                                   |
| <input type="checkbox"/> Lake or pond (name): _____                                    | <input type="checkbox"/> Historic site or structure                                       |
| <input type="checkbox"/> Endangered or threatened species (identify): _____            | <input type="checkbox"/> Flood hazard area, provide FEMA flood zone and map number: _____ |
| <input type="checkbox"/> Encumbrances, such as wells with radius, and easements: _____ |                                                                                           |

**Utilities (Existing and Proposed)**Water: Existing None Proposed City of Lacey - 16-inch water mainSewer: Existing None Proposed NoneAccess (name of street(s) from which access will be gained): Intelco Loop SE

I affirm, under penalty of perjury, that all answers, statements, and information submitted with this application are correct and accurate to the best of my knowledge. I also affirm that I am the owner of the subject site or am duly authorized by the owner to act with respect to this application. Further, I grant permission from the owner to any and all employees and representatives of the City of Lacey and other governmental agencies to enter upon and inspect said property as reasonably necessary to process this application. I agree to pay all fees of the City that apply to this application.

Puna Clarke, P.E.**Print Name****Signature****Date**

Please attach all applicable supplemental forms



Shaping  
our community  
together

CITY  
OF **LACEY**

DEPARTMENT OF COMMUNITY & ECONOMIC DEVELOPMENT  
420 College Street SE, Lacey, WA 98503 (360) 491-5642

## CONDITIONAL USE PERMIT SUPPLEMENTAL

(This form to be accompanied by the General Land Use Application)

**RECEIVED**

MAR 26 2020

BY

OFFICIAL USE ONLY

Date:

Case #: 19-376

Received By: CC

Planner: SARAH

Related Cases:

### Project Information

Applicant Name and Phone Number: City of Lacey - Puna Clarke, P.E. 360-459-4494

Authorized Rep. Name and Number: Murraysmith - Marshall Meyer, P.E., PMP 253-627-1520

Project Name: Terry Cargil Reservoir

Planning Project Number: 19-376

### Summary Of Request (list types of uses)

Design and construction of new water reservoir and related infrastructure

Hours of Operation (include number of days per week): 24 hours/day-7days/week

Total Square Footage of Site: 34,848 Total Square Footage in Paved or Covered Surfaces: 15,684

Number of Dwelling Units: Proposed: 0 Permitted: 0

### Existing Zoning

Existing Zoning Designation: CO-Community Office Comprehensive Plan Designation: CO-Community Office

How does the project conform to the Comprehensive Plan and Zoning Ordinance (attach additional sheets with narrative if necessary)? The new reservoir will provide part of the additional storage as intended in the Comprehensive Plan

Essential Public Facility? Yes Type One: \_\_\_\_\_ Type Two: \_\_\_\_\_ Type Three: X

### Commercial Uses

Total gross square footage of commercial buildings: Not applicable

Description of each commercial use: Not applicable

What provisions have been made to safeguard the adjoining properties against any detrimental effects caused by the development? This project will be designed to all applicable current seismic and structural codes.

EXHIBIT

4

What provisions have been made to make the development compatible with the appearance and character of the surrounding neighborhood? This project has included landscaping with screening vegetation and stormwater mitigation.

#### Protective Covenants

Are there protective covenants for the subdivision in which this use is to be located? Yes

If so, attach a copy of the covenants and explain how the proposed use does or does not conform to the covenants. Cite specific section(s) of the covenants for reference: Page 14 of 44, Article VIII, Regulation of Operations and Uses,  
the proposed use conforms to the regulations as it is a water reservoir.

#### Day Care Centers And Nursery Schools

Maximum Number of Students: 0 Estimated Maximum Vehicular Trips Generated: 0

How are these vehicular trips distributed by mode and time of day? Not Applicable

Attach a commercial traffic generation worksheet to the application form.

Essential Public Facilities Identified:

Does the proposed use meet the definition and criteria of 16.66.060 for essential public facilities review:

☒ Yes ☐ No

If yes, what type of facility is it classified as:

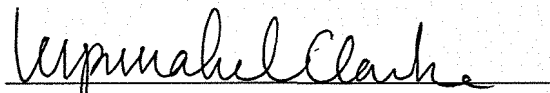
☐ Type 1 ☐ Type 2 ☒ Type 3

Please see additional submittal requirements for Type 1 and 2 essential public facilities below.

I affirm, under penalty of perjury, that all answers, statements, and information submitted with this application are correct and accurate to the best of my knowledge. I also affirm that I am the owner of the subject site or am duly authorized by the owner to act with respect to this application. Further, I grant permission from the owner to any and all employees and representatives of the City of Lacey and other governmental agencies to enter upon and inspect said property as reasonably necessary to process this application. I agree to pay all fees of the City that apply to this application.

Puna Clarke, P.E.

Print Name

  
Signature

3-24-2020  
Date

Please attach all applicable supplemental forms

## **ALL APPLICANTS MUST SUBMIT THE FOLLOWING INFORMATION**

- 1. 15 copies of General Land Use Application**
- 2. Environmental Checklist (if required) with original signature, and 15 copies (must include 2 CD's containing .pdf copies of all submittal materials, including applications)**
- 3. All Application Fees**
- 4. 15 copies of the site plan drawing and Conditional Use Permit application shall be submitted, the site plan drawing shall include all of the following items:**  
**NOTE: The site plan must be at a scale of not less than 20 feet to an inch and not more than 100 feet to an inch.**
  - a. The location of all existing and proposed structures, including, but not limited to, buildings, fences, culverts, bridges, roads and streets. Include setbacks from property lines.
  - b. The boundaries of the property proposed to be developed.
  - c. All means of vehicular and pedestrian ingress and egress to and from the site and the size and location of driveways.
  - d. The location and design of off-street parking areas showing their size and location for internal circulation and parking spaces.

### **When Applicable:**

- e. All proposed and existing buildings and setback lines.
- f. All areas, if any, to be preserved as buffers or to be dedicated to a public, private or community use for open space.
- g. All existing and proposed easements.
- h. The location of all utility structures and lines.
- i. The storm water drainage systems from existing and proposed structure, together with an estimate of existing maximum storm runoff.
- j. The location of all loading spaces, including, but not limited to, loading platforms and loading docks where trucks will load or unload.

### **Additional Submittals for Essential Public Facilities**

For Type One and Type Two essential public facilities an analysis including the following shall be provided:

- a. An evaluation of the site's capability to meet basic siting criteria for the proposed facility, such as size, physical characteristics, access, and availability of necessary utilities and support services;
- b. An explanation of the need for the proposed facility in the proposed location;
- c. The site's relationship to the service area and the distribution of other similar public facilities within the service area or jurisdiction, whichever is larger; and
- d. A general description of the relative environmental, traffic, and social impacts associated with locating the proposed facility at the alternative sites which meet the applicant's basic siting criteria. Proposed mitigation measures to alleviate or minimize significant potential impacts shall be included.
- e. A brief description of the process used to identify and evaluate the alternative sites.
- f. Proof of published 90 day advanced notice regarding the proposed project in a newspaper of general circulation shall also be submitted.

**ADJACENT PROPERTY OWNERS LIST REQUIRED – SEE PAGE 4**

## ADJACENT PROPERTY OWNERS LIST

PROJECT: \_\_\_\_\_

Please submit an adjacent property owners mailing list on mailing labels. Include all property owners within 300 feet of subject parcel.

Addresses are to be obtained from a title company and shall be based on the Thurston County Assessor's records.

Please be sure to also include mailing labels for the owner, applicant, engineer, architect, and representative.

See example below for format:

**EXAMPLE**

Joe Jones  
PO Box 1900  
Lacey, WA 98503

## Conditional Use Permit Application

### #10- Other Information

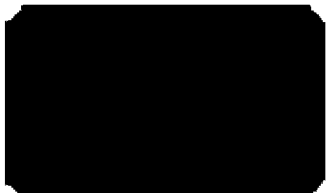
As part of this Conditional Use Permit Application, these questions & answers have been provided with the application to share more information for this project.

---

#### I. Questions & Answers

- a. **Who will the reservoir benefit?** The new Terry Cargil Reservoir will benefit the 337 pressure zone, which is approximately 40% of the City and includes the Pointe of Lacey development, Intelco Loop, College Street Corridor, and Corporate Center.
- b. **Will my property value be affected?** The City has no licensed property appraiser on staff and abstains from providing property values.
- c. **How was the property chosen?** The property is at the highest elevation in the southwestern side of the pressure zone. Specifically, the reservoir needed to be located on high spot in this area of the City, with a willing seller, on an unoccupied parcel, and with a price that was cost-effective for the City's rate-payers.
- d. **When was the property purchased?** 2008
- e. **What is the zoning of the project?** Community Office
- f. **What happens if the reservoir leaks? Are there redundancies built into the design?** The reservoir is being designed to current applicable seismic and structural standards. The reservoir will be outfitted with flow meters, floats, sensors, valves, and SCADA (Supervisory Control and Data Acquisition) which control and monitor the water flow and level in the reservoir. The SCADA system is monitored by City Water Operators 24 hours 7 days a week and the system will alert City staff if there are complications or emergencies.

The City has not experienced any leaks at any of our reservoirs resulting in any damage to surrounding property. The City has reached out to our Project Design Engineers, Murraysmith. Murraysmith has internal staff who are on the national American Water Works Association (AWWA) Committees for steel and pre-stressed tank design standards (AWWA D100 and D110). They are not aware of any published or tracked failure rates of this type for AWWA design standard tanks. In addition,



Murraysmith designs water tanks (reservoirs) to the highest standard in the building code – essential public facilities. This is the same building category as hospitals and police stations, with the same structural design safety factors, which has significantly higher safety factors than residential homes.

- g. **How long is construction?** 14-16 months
- h. **Is the adjacent area being used for staging?** No. The Contractor will use the project area and/or make its own arrangements for staging during construction.
- i. **Are site layout changes possible?** During the public meeting, the site layout was discussed. Specifically discussed was the limited project site area (180ftx181ft), the required items to be placed on the property, and where to arrange items on site. These constraints resulted in the site layout as shown during the public meeting. The site layout is fixed at this time.
- j. **Where will the utilities connect to?** Utilities will be connected in Intelco Loop SE.
- k. **How will this project be paid for?** This project was identified in the current City's water comprehensive plan and is paid for by City rates and connection fees. No grants will be utilized to pay for this project. There will also be no special assessments to nearby properties or water customers.
- l. **How will the reservoir look?** The reservoir will be a Composite Elevated Tank. The top portion is made of steel and the column is made of concrete. The steel section will be painted a single color to blend into the area.

# DRAFT

## ***Purpose of checklist:***

Governmental agencies use this checklist to help determine whether the environmental impacts of your proposal are significant. This information is also helpful to determine if available avoidance, minimization or compensatory mitigation measures will address the probable significant impacts or if an environmental impact statement will be prepared to further analyze the proposal.

## ***Instructions for applicants:***

This environmental checklist asks you to describe some basic information about your proposal. Please answer each question accurately and carefully, to the best of your knowledge. You may need to consult with an agency specialist or private consultant for some questions. You may use "not applicable" or "does not apply" only when you can explain why it does not apply and not when the answer is unknown. You may also attach or incorporate by reference additional studies reports. Complete and accurate answers to these questions often avoid delays with the SEPA process as well as later in the decision-making process.

The checklist questions apply to all parts of your proposal, even if you plan to do them over a period of time or on different parcels of land. Attach any additional information that will help describe your proposal or its environmental effects. The agency to which you submit this checklist may ask you to explain your answers or provide additional information reasonably related to determining if there may be significant adverse impact.

## ***Instructions for Lead Agencies:***

Please adjust the format of this template as needed. Additional information may be necessary to evaluate the existing environment, all interrelated aspects of the proposal and an analysis of adverse impacts. The checklist is considered the first but not necessarily the only source of information needed to make an adequate threshold determination. Once a threshold determination is made, the lead agency is responsible for the completeness and accuracy of the checklist and other supporting documents.

## ***Use of checklist for nonproject proposals:***

For nonproject proposals (such as ordinances, regulations, plans and programs), complete the applicable parts of sections A and B plus the SUPPLEMENTAL SHEET FOR NONPROJECT ACTIONS (part D). Please completely answer all questions that apply and note that the words "project," "applicant," and "property or site" should be read as "proposal," "proponent," and "affected geographic area," respectively. The lead agency may exclude (for non-projects) questions in Part B - Environmental Elements—that do not contribute meaningfully to the analysis of the proposal.

**A. Background [HELP]**

**1. Name of proposed project, if applicable:**

Terry Cargil Reservoir

**2. Name of applicant:**

City of Lacey

**3. Address and phone number of applicant and contact person:**

Puna Clarke, P.E.  
City of Lacey  
Public Works - Water Resources Division  
420 College Street SE  
Lacey, WA 98503  
(360) 459-4494  
[pclarke@ci.lacey.wa.us](mailto:pclarke@ci.lacey.wa.us)

**4. Date checklist prepared:**

March 2020

**5. Agency requesting checklist:**

City of Lacey  
420 College Street SE  
Lacey, WA 98503

**6. Proposed timing or schedule (including phasing, if applicable):**

Construction is anticipated to begin in the winter of 2021 after receiving permit approval and proceed continuously through the spring of 2022. Construction activities will follow the Lacey Municipal Code 14.38.010 and will generally occur during the hours of 7 AM to 5 PM, Monday through Friday. Some work may extend until 9 PM on weekdays or involve weekend activity for brief periods.

**7. Do you have any plans for future additions, expansion, or further activity related to or connected with this proposal? If yes, explain.**

No additions, expansions, or further activity are anticipated beyond completion of the proposed project.

**8. List any environmental information you know about that has been prepared, or will be prepared, directly related to this proposal.**

- Carollo Engineers (Carollo). (November 2013). *City of Lacey Water System Comprehensive Plan*. Seattle, WA: Lara Kammereck, P.E. & Peter C. Brooks, P.E.
- HWA Geosciences Inc (HWA). (January 2020). *Project Technical Memorandum: Geotechnical Parameters for Analysis – Terry Cargil Reservoir*. Bothell, WA: Dila Saiden, Ph.D., PE.
- Murraysmith, Inc. (2020) *Draft – City of Lacey Water System Comprehensive Plan Update*. Manuscript in preparation.
- Murraysmith, Inc. (2020) *Draft – Terry Cargil Reservoir: Draft Preliminary Design Report*. Manuscript in preparation.
- Pacific Groundwater Group (PGG). (June 2019). *Soils Report: Intelco Loop Site Development, Lacey, WA*. Seattle, WA: Dawn Chapel, Hydrogeologist.

**9. Do you know whether applications are pending for governmental approvals of other proposals directly affecting the property covered by your proposal? If yes, explain.**

There are no applications pending for governmental approvals of other proposals directly affecting the property covered by the proposal.

**10. List any government approvals or permits that will be needed for your proposal, if known.**

- Conditional Use Permit (City of Lacey)
- General Land Use Application (City of Lacey)
- Stormwater Report and Site Plan (City of Lacey)
- Foundation Permit (City of Lacey)
- New Commercial Building Permit (City of Lacey)
- Grading Permit (City of Lacey)
- Land Clearing Permit Exemption Request (City of Lacey)
- Electrical Permit (City of Lacey)
- Mechanical Permit (City of Lacey)
- Ecology National Pollutant Discharge Elimination System (NPDES) Construction Stormwater General Permit (CSWGP) (potential based on approach to stormwater management)

**11. Give brief, complete description of your proposal, including the proposed uses and the size of the project and site. There are several questions later in this checklist that ask you to describe certain aspects of your proposal. You do not need to repeat those answers on this page. (Lead agencies may modify this form to include additional specific information on project description.)**

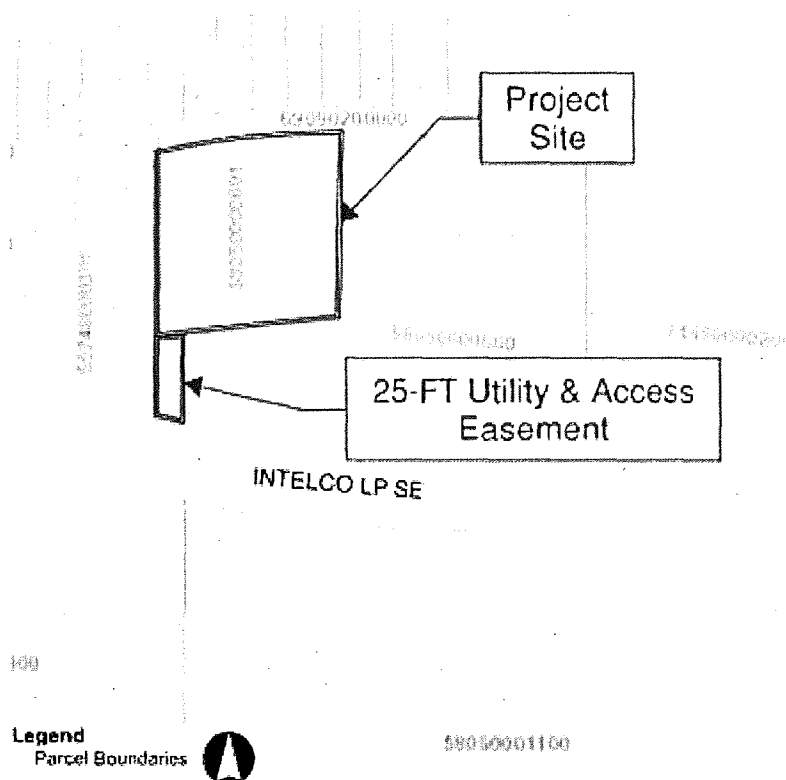
The proposed project is the construction of the Terry Cargil Reservoir and other components. This composite elevated tank will hold 1.25 million gallons, stand approximately 130 feet tall, and consist of an approximately 80-foot wide steel water tank

supported above ground on an approximately 42-foot wide concrete support pedestal. The elevated water tank will bring the water level to an elevation necessary to meet the 337 pressure zone requirements needed to meet current and future water needs of the service area. Other project components include construction of an access road, site piping, tank overflow, and stormwater improvements. The project site will be regraded to accommodate the proposed improvements.

**12. Location of the proposal. Give sufficient information for a person to understand the precise location of your proposed project, including a street address, if any, and section, township, and range, if known. If a proposal would occur over a range of area, provide the range or boundaries of the site(s). Provide a legal description, site plan, vicinity map, and topographic map, if reasonably available. While you should submit any plans required by the agency, you are not required to duplicate maps or detailed plans submitted with any permit applications related to this checklist.**

The project site is the City of Lacey, Thurston County, Washington. The site address is 4504B Intelco Loop SE, Lacey 98503 (Parcel 58050000601) (Figure 1). The site is located to the North of the Intelco Loop SE covering 0.7675 acres. The Thurston County Tax Assessor abbreviated legal description is Section 32 Township 18 Range 1W Quarter NW SE Plat.

**Figure 1. Project Site**



## **B. Environmental Elements** [HELP]

### **1. Earth** [help]

#### **a. General description of the site:**

(circle one): Flat, rolling hilly, steep slopes, mountainous, other \_\_\_\_\_

The site slightly slopes gently downward to the west with higher points along the eastern portion of the site. The project site is relatively flat; however, the northwestern border of the project site slopes moderately downward and away from the project site. The property elevations vary from approximately 224 feet above MSL (AMSL) in the northwest corner, to approximately 228 feet AMSL in the southeast corner. The project site is primarily covered with vegetation generally consisting of native trees and shrubs. To date, no facilities have been constructed on the project site.

#### **b. What is the steepest slope on the site (approximate percent slope)?**

The steepest slope on the site is approximately 3%. There is an area, approximately 50 square feet, near the base of a tree in the northwest corner of the site with a slope of approximately 24%.

#### **c. What general types of soils are found on the site (for example, clay, sand, gravel, peat, muck)? If you know the classification of agricultural soils, specify them and note any agricultural land of long-term commercial significance and whether the proposal results in removing any of these soils.**

Based on the preliminary soil study conducted by PGG (2019), the site is entirely underlain by Alderwood soils, which consists of very gravelly, sandy loam. Alderwood soils have developed on dense glaciomarine deposits, including till and gravels. The Alderwood soils have a typical profile consisting of a 7-inch thick organic A horizon underlain by very gravelly sandy loam, which is moderately well drained.

A dense restrictive layer (glacial till) occurs beginning 20 to 39 inches below ground, resulting in a low ability to transmit water, and a seasonal high water table typically 18 to 37 inches below ground (PGG, 2019). Also, the two shallowest layers below surficial soils in the project area include Vashon Glacial Till and Vashon Advance Outwash (PGG, 2019).

#### **d. Are there surface indications or history of unstable soils in the immediate vicinity? If so, describe.**

The site not likely to experience slope instability because of the dense nature of the subsurface soils. Liquefaction will not be a design consideration for this project (HWA, 2020).

**e. Describe the purpose, type, total area, and approximate quantities and total affected area of any filling, excavation, and grading proposed. Indicate source of fill.**

Approximately 13,300 cubic yards will be excavated and approximately 10,000 cubic yards of fill will be required. Fill will consist of reused native material and imported structural fill, where appropriate. The elevated tank will require excavation within the proposed footprint of the tank's foundation to a depth of approximately 11 feet. Additional excavation will be completed for a stormwater detention pond, which will be approximately 4 feet deep. Structural backfill will be sourced from a WSDOT approved aggregate source.

**f. Could erosion occur as a result of clearing, construction, or use? If so, generally describe.**

Site work will expose soils during clearing, grading, and excavation activities. All temporary and permanent erosion-sediment control facilities will be designed in accordance with the current City of Lacey Stormwater Design Manual.

**g. About what percent of the site will be covered with impervious surfaces after project construction (for example, asphalt or buildings)?**

Currently, there are no impervious surfaces on the project site. The project proposes to convert approximately 0.318 acres of existing pervious surface to impervious surface within the project site that consists of the proposed reservoir roof and the asphalt access road, road around the tank, and pond access road. The project will also add 0.036 acres of impervious surface to the access easement south of the site that connects the project site to Intelco Loop Road SE. The project will add a total of approximately 0.354 acres of impervious surface after completion of construction, which would result in an impervious surface coverage of approximately 44.1%.

**h. Proposed measures to reduce or control erosion, or other impacts to the earth, if any:**

The project will comply with the 2016 City of Lacey Stormwater Design Manual. Best Management Practices (BMPs) are physical, structural, and/or managerial practices that can prevent or reduce the erosion and pollution of water caused by construction activities. The following BMPs may be incorporated during construction to minimize the potential for erosion:

- Stage construction so that pavement and other landscaping surfaces are intact as long as possible.

- Do not allow surface water to pond or flow across the project site over unprotected surfaces.
- Place and maintain silt fences around the downslope perimeters of the construction area.

Store soils that are to be reused around the project site in such a manner that it reduces erosion from the stockpile. Protective measures may include, but are not limited to, covering with plastic sheeting, the use of low stockpiles in flat areas, or the use of straw bales and/or additional silt fences around pile perimeters.

## 2. Air [\[help\]](#)

### a. What types of emissions to the air would result from the proposal during construction, operation, and maintenance when the project is completed? If any, generally describe and give approximate quantities if known.

Mobile and stationary equipment will be used for project construction; thus, generating emissions due to the combustion of gasoline and diesel fuels. Emissions during construction could also include dust from grading activities. These emissions are expected to be minimal, localized, and temporary.

The proposed project would produce greenhouse gases (GHGs) through construction activity (as described above), and during regular operation, maintenance, and monitoring activities. Construction activities at the site would occur for approximately one year.

No new long-term emissions are expected, with the only source being vehicles used for maintenance. Maintenance vehicles would visit the site at a low frequency.

### b. Are there any off-site sources of emissions or odor that may affect your proposal? If so, generally describe.

There are no known off-site sources of emissions or odors that could negatively affect the proposed project. Also, minor air emissions from vehicular traffic and homes surrounding the project site would not affect the proposal.

### c. Proposed measures to reduce or control emissions or other impacts to air, if any:

During construction, impacts to air quality would be reduced and controlled through implementation of standard federal, state, and local emission control criteria and City construction practices. These would include requiring the contractor to use the best available control technologies, proper vehicle maintenance, and minimizing vehicle and equipment idling. In addition, the contractor will implement dust control measures during earthwork, including but not limited to street sweeping, water application to exposed soil surfaces, and covering of soil stockpiles to minimize fugitive dust.

### 3. **Water** [\[help\]](#)

#### a. **Surface Water:** [\[help\]](#)

- 1) Is there any surface water body on or in the immediate vicinity of the site (including year-round and seasonal streams, saltwater, lakes, ponds, wetlands)? If yes, describe type and provide names. If appropriate, state what stream or river it flows into.**

Smith Lake is about 1,000 feet from the site location. Smith Lake has water year-round and has a surface area of 17.7 acres, with a depth of 10 feet.

- 2) Will the project require any work over, in, or adjacent to (within 200 feet) the described waters? If yes, please describe and attach available plans.**

The project work will not require any work over, in or will be adjacent to any surface water bodies.

- 3) Estimate the amount of fill and dredge material that would be placed in or removed from surface water or wetlands and indicate the area of the site that would be affected. Indicate the source of fill material.**

No fill or dredge material will be placed in or removed for surface water bodies to support the proposed project because there are no documented surface water bodies in or within the vicinity of the project area.

- 4) Will the proposal require surface water withdrawals or diversions? Give general description, purpose, and approximate quantities if known.**

The proposed project would not require any withdrawals or diversions of any surface water.

- 5) Does the proposal lie within a 100-year floodplain? If so, note location on the site plan.**

According to the Federal Emergency Management Agency (FEMA) Flood Insurance Rate Maps (FIRM), the proposed project does not lie within a 100-year floodplain (FEMA, 2016).

- 6) Does the proposal involve any discharges of waste materials to surface waters? If so, describe the type of waste and anticipated volume of discharge.**

No discharges of waste materials to surface waters are anticipated. BMPs will be employed to minimize the possibility of waste materials and upland sediments entering surface waters.

#### b. **Ground Water:** [\[help\]](#)

- 1) Will groundwater be withdrawn from a well for drinking water or other purposes? If so, give a general description of the well, proposed uses and approximate quantities withdrawn from the well. Will water be discharged to groundwater? Give general description, purpose, and approximate quantities if known.**

Ground water will not be withdrawn from a well for drinking water or other purposes. The project would be supplied by the same groundwater sources as at present. The project does not involve discharges to groundwater.

- 2) Describe waste material that will be discharged into the ground from septic tanks or other sources, if any (for example: Domestic sewage; industrial, containing the following chemicals. . .; agricultural; etc.). Describe the general size of the system, the number of such systems, the number of houses to be served (if applicable), or the number of animals or humans the system(s) are expected to serve.**

No waste material will be discharged into the ground from septic tanks or other sources.

**c. Water runoff (including stormwater):**

- 1) Describe the source of runoff (including storm water) and method of collection and disposal, if any (include quantities, if known). Where will this water flow? Will this water flow into other waters? If so, describe.**

Stormwater will be the main source of runoff. Stormwater runoff will continue to result from impervious surfaces on the site. Limited stormwater runoff will result from the proposed tank and asphalt road. Stormwater will be conveyed to an on-site detention pond through a series of ditches, catch basins, and piping located around the proposed tank and throughout the project site. A pond outlet structure will be designed to limit outgoing flows per City stormwater standards before discharging into the City's existing stormwater system. The stormwater pond will also be used to detain water from the proposed reservoir when it is drained or during an overflow event.

- 2) Could waste materials enter ground or surface waters? If so, generally describe.**

BMPs (described below in 3.d) will minimize the potential for sediment and waste materials to enter surface water during construction. No waste material will be discharged to ground or surface waters as a result of access road and tank construction or demolition of the existing tank.

- 3) Does the proposal alter or otherwise affect drainage patterns in the vicinity of the site? If so, describe.**

This project is not expected to affect drainage patterns onsite or in the site vicinity.

**d. Proposed measures to reduce or control surface, ground, and runoff water, and drainage pattern impacts, if any:**

The project will comply with the 2016 City of Lacey Stormwater Design Manual. During construction, the following measures shall be implemented to reduce or control impacts to water:

- Implementing a Temporary Erosion and Sediment Control (TESC) Plan to address erosion control (including directing runoff away from non-stabilized soils, slowing runoff with structures, and installing silt fences to catch sediment).
- Developing, implementing, and maintaining a Stormwater Pollution Prevention Plan (SWPPP) to minimize erosion resulting from rainfall runoff at construction sites, and to reduce, eliminate, and prevent the pollution of stormwater.

**4. Plants** [\[help\]](#)

**a. Check the types of vegetation found on the site:**

- ☒ deciduous tree: alder, maple, aspen, other
- ☒ evergreen tree: fir, cedar, pine, other
- ☒ shrubs
- ☒ grass
- ☐ pasture
- ☐ crop or grain
- ☐ orchards, vineyards or other permanent crops.
- ☐ wet soil plants: cattail, buttercup, bullrush, skunk cabbage, other
- ☐ water plants: water lily, eelgrass, milfoil, other
- ☐ other types of vegetation

**b. What kind and amount of vegetation will be removed or altered?**

Vegetation found within and near the Project corridor is consistent with vegetation common of a sub-urban forest setting. The arborist from Sound Urban Forestry, LLC (SUF), determined that a total of 71 trees are to be removed from the project site. These tree types are broken down in the following amounts:

- 29 Western Red Cedars
- 17 Big Leaf Maples
- 13 Douglas Firs
- 9 Red Alders
- 1 Western Hemlock
- Bitter Cherry

A total of 6 trees are recommended for removal with the 25' North Pointe buffer along the north side of the City parcel. These trees consist of five Western Red Cedars and

one Western Hemlock. The trees are in poor condition with the upper 1/3 of the canopies dead and are likely to experience failure, within striking distance of homes.

In addition to trees, the project vegetation to be removed include grass, shrubs and small forest floor plants.

**c. List threatened and endangered species known to be on or near the site.**

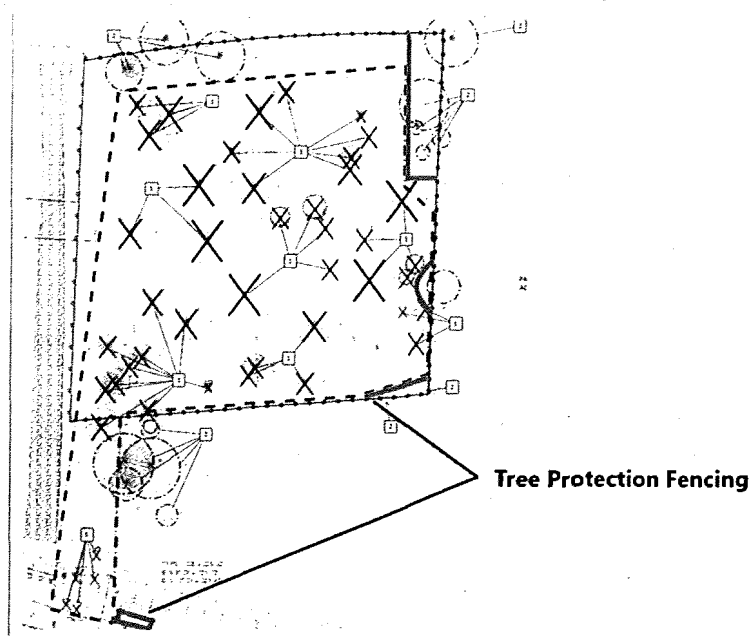
According to the Washington Natural Heritage Program, there are a group of rare plants found in the forests of Thurston County. These plants including; Tall Agoseris, Tall Bugbane, Pink Fawn-lily, Western Wahoo, Common Bluecup, Bolander's Pea, Pinefoot, Great Polemonium, California Swordfern, Rose Checker-Mallow, Small-Flowered Trillium. None of these plants have been recorded on the site. Therefore, site construction will not be a threat to their removal.

**d. Proposed landscaping, use of native plants, or other measures to preserve or enhance vegetation on the site, if any:**

A 15' wide landscaping perimeter will be implemented inside of the site boundary. This landscaping will consist of native plants and trees. This will create a landscape setback between the reservoir site and other local sites. The proposed landscaping will retain some existing trees (shown in Figure 2) and meet Type 1 Landscaping requirements as defined in LMC Chapter 16.80. SUF recommends including the following tree, shrub and groundcover species in the replanting efforts:

- Arborvitae, *Thuja occindetalis* 'Emerald Green'
- Lawn Grass, Fescue Blend

**Figure 2. Tree Protection Fencing**



**e. List all noxious weeds and invasive species known to be on or near the site.**

Some of the observed invasive species within Thurston County are Evergreen blackberry, Himalayan blackberry, Eurasian watermilfoil, Policeman's Helmet, Canada thistle, Scotch Broom, yellow nutsedge, and the invasive cultivars of English Ivy. The Project will involve the removal of trees and plants from the project site. Best Management practices will be implemented to prevent spreading of noxious weeds:

1. During construction clothing and footwear worn will not be "seed-friendly".
2. Clean vehicles, equipment, tools and clothing to prevent spreading seeds.
3. Locate invasive species already on the site and remove them from the site.
4. Dispose of invasive species in Thurston County regulated removal locations.
5. Minimize addition of soil with potential to have high levels of foreign sediments and pollutants.

Some of the site development relates to access roads and the reservoir tank, which are not suitable places of growth for plants. The detention pond, and the surrounding area, will be monitored for invasive, noxious plant species. Any restoration of plant areas will include native plants.

**5. Animals** [\[help\]](#)

**a. List any birds and other animals which have been observed on or near the site or are known to be on or near the site.**

**Examples include:**

**birds:** hawk, heron, eagle, songbirds, **other:**

**mammals:** deer, bear, elk, beaver, **other:**

**fish:** bass, salmon, trout, herring, shellfish, **other** \_\_\_\_\_

The main source of wildlife on or near the project site are birds and mammals. This might include songbirds, owls, hawks, deer, squirrels, bats, coyotes, skunks, moles, rabbits, raccoons and wildlife that might be found in sub-urban green spaces.

**b. List any threatened and endangered species known to be on or near the site.**

According to the Thurston County Permitting Map (2020), the project area contains Mazama Pocket Gopher Indicator Soils, which include Alderwood soils. However, these soils are low preference soils for this threatened and endangered species. There are no other threatened or endangered species, or mapped critical habitat, documented within or near the project site.

According to the Washington State Department of Fish and Wildlife Priority Habitats and Species (PHS) Web Database (2020), protected species of bats are observed on or near the site including Yuma myotis, Big brown bat and Little brown Bat. The animals utilize the vicinity as communal roosting and breeding areas. All species of bats are classified as protected in the State of Washington and cannot be hunted, trapped, or killed (WAC 232-12011) therefore, precautions will be made to ensure the safe exclusion of these species throughout the project timeline.

**c. Is the site part of a migration route? If so, explain.**

The Puget Sound area is located within the Pacific Flyway, which is a flight corridor for migrating waterfowl and other avian fauna. The Pacific Flyway extends south from Alaska to South America. No portion of the proposed project would interfere with or alter the Pacific Flyway and migrating and nesting birds within the project area will be protected under the Migratory Bird Treaty Act.

**d. Proposed measures to preserve or enhance wildlife, if any:**

The following measures will be implemented to minimize the potential adverse effects on fish and wildlife in the area:

- The proposed project will incorporate TESC measures
- All construction will comply with Washington State Department of Ecology 2016 Stormwater Management Manual for Western Washington (SWMMWW).
- Following construction, all cleared areas will be re-vegetated with vegetation meeting the LMC Chapter 16.80 requirements.

**e. List any invasive animal species known to be on or near the site.**

Rodents are likely present in the project area.

**6. Energy and Natural Resources [\[help\]](#)**

**a. What kinds of energy (electric, natural gas, oil, wood stove, solar) will be used to meet the completed project's energy needs? Describe whether it will be used for heating, manufacturing, etc.**

The project site will require electricity to serve the proposed project. Electrical needs may include a control and telemetry system, security system, on-site lighting, an automatic vehicle roll-up door, and cellular service support requirements.

**b. Would your project affect the potential use of solar energy by adjacent properties?  
If so, generally describe.**

The proposed tank will be up to approximately 130 feet tall. A shadow analysis indicates that major shadows over nearby commercial and residential areas will be similar to the shadows already created by trees on the site and minimally affected during sunrise and sunset hours throughout the year. The proposed tank will not be tall or wide enough to significantly block the use of solar energy by adjacent properties.

- c. What kinds of energy conservation features are included in the plans of this proposal? List other proposed measures to reduce or control energy impacts, if any:**

No energy conservation features are proposed as part of this project.

**7. Environmental Health** [\[help\]](#)

- a. Are there any environmental health hazards, including exposure to toxic chemicals, risk of fire and explosion, spill, or hazardous waste, that could occur as a result of this proposal? If so, describe.**

- 1) Describe any known or possible contamination at the site from present or past uses.**

None are known.

- 2) Describe existing hazardous chemicals/conditions that might affect project development and design. This includes underground hazardous liquid and gas transmission pipelines located within the project area and in the vicinity.**

There are no hazardous chemicals/conditions that might affect project development or design, as there has been no development, nor existing underground hazardous liquid and gas transmission pipelines within the project area or vicinity.

- 3) Describe any toxic or hazardous chemicals that might be stored, used, or produced during the project's development or construction, or at any time during the operating life of the project.**

Construction of the proposed Project would require use and storage of relatively small amounts of materials such as gasoline and diesel fuels, hydraulic fluids, oils, lubricants, solvents, paints, and other chemical products. No toxic or hazardous chemicals would be stored, used, or produced at any time during the operating life of the Project.

- 4) Describe special emergency services that might be required.**

Fire and medical response services may be required in the event of an emergency during construction or operation/maintenance of the proposed

Project. However, the completed Project would not result in higher levels of special emergency services than already exist at the Project location.

**5) Proposed measures to reduce or control environmental health hazards, if any:**

Site-specific pollution prevention plans and spill prevention and control plans would be developed to prevent or minimize impacts from hazardous materials. The demolition contractor will be contractually required to evaluate and address any and all such spills or releases to the project proponent's satisfaction before project completion.

**b. Noise**

**1) What types of noise exist in the area which may affect your project (for example: traffic, equipment, operation, other)?**

The site is near commercial areas and a road, which generates some traffic noise. There are no existing sources of noise in the area that would adversely affect the proposal.

**2) What types and levels of noise would be created by or associated with the project on a short-term or a long-term basis (for example: traffic, construction, operation, other)? Indicate what hours noise would come from the site.**

Project construction would result in a short-term increase of noise levels within the Project area. This temporary increase in noise levels would result from construction equipment and practices within the Project site. Short-term noise from construction equipment will all follow the City of Lacey Municipal Code 16.57.030. Sounds originating from the temporary construction site will occur between the hour of seven a.m. and ten p.m., unless a permit is obtained to work, temporarily, at different hours.

**3) Proposed measures to reduce or control noise impacts, if any:**

Construction equipment would be muffled in accordance with the applicable laws. Noise monitoring would be implemented to ensure that Project construction remains in compliance with the hours of noise limitation, as prescribed in Chapter 16 of the City of Lacey Municipal Code.. A noise variance would be acquired in the discrete cases when prescriptive noise limitations are expected to be exceeded.

**8. Land and Shoreline Use** [\[help\]](#)

**a. What is the current use of the site and adjacent properties? Will the proposal affect current land uses on nearby or adjacent properties? If so, describe.**

The current project site is 0.7675 acres of undeveloped land located in a community office zone designation. The closest properties are a driving school to the west that provides driving courses to Thurston County residents; the Jacob Smith house to the east that is a banquet hall that hosts events such as weddings; and residences to the north on Roxanna Loop, and Lacey Park Apartments. There are several other commercial sites in the area including a dentist, a family practice, an orthodontist, a fitness center, and a "head start" facility. Further out from the project site are more residential homes.

- b. Has the project site been used as working farmlands or working forest lands? If so, describe. How much agricultural or forest land of long-term commercial significance will be converted to other uses as a result of the proposal, if any? If resource lands have not been designated, how many acres in farmland or forest land tax status will be converted to nonfarm or nonforest use?**

The project site has not been used as a working farmland or working forest land.

- 1) Will the proposal affect or be affected by surrounding working farm or forest land normal business operations, such as oversize equipment access, the application of pesticides, tilling, and harvesting? If so, how:**

The project site will not be affected by surrounding working farm or forest lands. The Project will necessitate the removal of trees and small shrubs from the project site which might necessitate larger logging trucks or forestry equipment. This would necessitate short-term permitting for oversized forestry equipment.

- c. Describe any structures on the site.**

There are no existing above grade, or below grade structures on the Project site.

- d. Will any structures be demolished? If so, what?**

There are no existing above grade, or below grade structures on the Project site. Therefore, none of these structures will be demolished.

- e. What is the current zoning classification of the site?**

The project site is zoned as Community Office (CO).

- f. What is the current comprehensive plan designation of the site?**

The current comprehensive plan designation of this site is Community Office (CO).

- g. If applicable, what is the current shoreline master program designation of the site?**

Not applicable.

**h. Has any part of the site been classified as a critical area by the city or county?  
If so, specify.**

The project site is within a Category II Aquifer Recharge Area (high), as designated by Thurston County. The project site contains Yelm fine sandy loam and Alderwood gravelly sandy loam soils.

The project site is within a Slope A - Landslide Hazard Review Area designated by Thurston County. Slopes over 15% are limited to a small area in the northwest corner of the project site and will not be impacted by construction activities. The proposed development, in addition to clearing and grading activities, will conform to City erosion hazard area development requirements.

**i. Approximately how many people would reside or work in the completed project?**

No people would reside or work in the completed project, with the exception of occasional maintenance and inspections visits from authorized personnel to the facility. The frequency of maintenance visits would be similar to present practice at similar facilities, which generally have one visit per day.

**j. Approximately how many people would the completed project displace?**

The completed project would not displace any people.

**k. Proposed measures to avoid or reduce displacement impacts, if any:**

No displacement would occur; therefore, no mitigation measures are proposed.

**l. Proposed measures to ensure the proposal is compatible with existing and projected land uses and plans, if any:**

The project will comply with City land use and permitting requirements.

**m. Proposed measures to reduce or control impacts to agricultural and forest lands of long-term commercial significance, if any:**

The project would not affect any agricultural or forest lands of long-term significance; therefore, no measures to ensure compatibility are required.

**9. Housing [\[help\]](#)**

**a. Approximately how many units would be provided, if any? Indicate whether high, middle, or low-income housing.**

The proposed Project does not include the construction of housing units.

- b. Approximately how many units, if any, would be eliminated? Indicate whether high, middle, or low-income housing.**

The site is not currently developed with housing units and therefore does not eliminate any housing units.

- c. Proposed measures to reduce or control housing impacts, if any:**

The project would not cause housing impacts; therefore, mitigation measures to control housing impacts would not be required.

**10. Aesthetics** [\[help\]](#)

- a. What is the tallest height of any proposed structure(s), not including antennas; what is the principal exterior building material(s) proposed?**

The proposed tank structure would be up to approximately 130 feet tall, 42 feet in diameter at the concrete base, and approximately 80 feet in diameter at the steel tank above base. The elevated water storage tank would be constructed of a cast in place concrete base column and a welded carbon steel water-bearing structure. It would include hinged access hatches on the roof and a ground-level access through a single door at the tank's base column. A steel vent structure and handrails will be placed on the roof.

- b. What views in the immediate vicinity would be altered or obstructed?**

The proposed reservoir will alter the views for properties on the north, south, and west, which is comprised of residential housing, commercial buildings, and the Jacob Smith House. The viewshed will include the top of the reservoir above the matured evergreen trees. The proposed reservoir will alter the views for the commercial building to the east. The reservoir will be plainly seen as opposed to the current view of matured evergreen trees.

- k. Proposed measures to reduce or control aesthetic impacts, if any:**

The reservoir is proposed to be set back from the property lines and will conform to all City of Lacey codes, regulations and requirements for design and landscaping. A landscape buffer will be included that will obscure sight into the northern part of the property, where the residences are located. Other aesthetic improvements will be determined during the Conditional Use Permitting Process.

**11. Light and Glare** [\[help\]](#)

- a. What type of light or glare will the proposal produce? What time of day would it mainly occur?**

Most of the project construction would occur during daylight hours. Work conducted in low light conditions would require artificial lighting to ensure worker safety. To minimize potential spillover from this lighting, the lights would be downcast and focused on the construction zone. Construction lighting may increase ambient light conditions within the immediate project area but impacts to sensitive receivers are not anticipated.

Long-term light and glare impacts are not anticipated. LED lights will be installed above doors on the completed tank and on two lightpoles on the project site. All lights will be downcasting to minimize impact to adjacent properties and would only operate when workers were at the site. FAA may require lighting at the top of the tank to alert air traffic. This lighting would be on the roof of the proposed tank and not directed at any residential homes.

**b. Could light or glare from the finished project be a safety hazard or interfere with views?**

No. Only minor lighting would be associated with the site.

**c. What existing off-site sources of light or glare may affect your proposal?**

The project components would not be affected by existing sources of light or glare.

**d. Proposed measures to reduce or control light and glare impacts, if any:**

All exterior lights would be focused or shielded as necessary to cast light only in areas that require it and to minimize light spillage onto neighboring properties

**12. Recreation** [\[help\]](#)

**a. What designated and informal recreational opportunities are in the immediate vicinity?**

There are no recreational opportunities on the site location. The Jacob Smith House is located to the east of the project site and is a historical place that now hosts weddings, reunions, meetings and retreats.

**b. Would the proposed project displace any existing recreational uses? If so, describe.**

No recreational uses would be displaced.

**c. Proposed measures to reduce or control impacts on recreation, including recreation opportunities to be provided by the project or applicant, if any:**

The project does not displace any existing recreational uses; therefore, no measures are proposed.

### **13. Historic and cultural preservation** [\[help\]](#)

- a. Are there any buildings, structures, or sites, located on or near the site that are over 45 years old listed in or eligible for listing in national, state, or local preservation registers? If so, specifically describe.**

No historic buildings, structures or sites were found on the site. Approximately 420 feet to the east of the project site lies the Jacob Smith House, a Lacey Historic Site. This residence is one of the oldest in Thurston county constructed prior to the civil war in 1859.

- b. Are there any landmarks, features, or other evidence of Indian or historic use or occupation? This may include human burials or old cemeteries. Are there any material evidence, artifacts, or areas of cultural importance on or near the site? Please list any professional studies conducted at the site to identify such resources.**

No physical evidence, records or studies indicate that the site, or any nearby property, has historic use or occupation.

- c. Describe the methods used to assess the potential impacts to cultural and historic resources on or near the project site. Examples include consultation with tribes and the department of archeology and historic preservation, archaeological surveys, historic maps, GIS data, etc.**

Publicly available records from the Washington State Department of Archaeology and Historic Preservation (DAHP) Wisaard online database (2020) were reviewed to assess any potential cultural or historic resources on or near the project site. The DAHP online database provides access to the historic properties inventory including properties listed on the Heritage Barn Register, Washington Heritage Register and the National Register of Historic Places. Information available on the Thurston County and City of Lacey websites was also utilized in the historical search. The Thurston County GeoData Permitting Map (2020) indicated historic sites within the County limits.

- d. Proposed measures to avoid, minimize, or compensate for loss, changes to, and disturbance to resources. Please include plans for the above and any permits that may be required.**

No loss, changes, or disturbances are expected to affect the nearby cultural and historic resources outlined above. Should cultural resources be inadvertently identified during the project, the City of Lacey will comply with state laws requiring the protection of cultural resources and human remains (RCW 27.53, RCW 27.44, RCW 68.50, and RCW 68.60). If any cultural resources are inadvertently discovered, work in the immediate vicinity of the identified resources will be halted and notification will be made to DAHP and Affected Tribes to negotiate mitigation and/or avoidance measures.

### **14. Transportation** [\[help\]](#)

- a. Identify public streets and highways serving the site or affected geographic area and describe proposed access to the existing street system. Show on site plans, if any.**

The project site is located to the north of Intelco Loop SE, at 4504B Intelco Loop SE, Lacey. A proposed access road runs north from the street to the project construction site.

- b. Is the site or affected geographic area currently served by public transit? If so, generally describe. If not, what is the approximate distance to the nearest transit stop?**

Several buses run along Intelco Loop Road, including the 62, 66 and 68 bus. There are no bus stops in front of the site location so and if necessary, bus routes will be rerouted during construction. Construction is anticipated to have minimal impact on public transportation. The nearest transit stop is along Corporate Center Dr SE and Intelco Loop SE, which is less than 0.25 miles from the project site.

- c. How many additional parking spaces would the completed project or non-project proposal have? How many would the project or proposal eliminate?**

The completed Project will create four new parking spaces on the project site. They have been designed for maintenance/ operations vehicles to complete work on the reservoir tank and the detention pond.

- d. Will the proposal require any new or improvements to existing roads, streets, pedestrian, bicycle or state transportation facilities, not including driveways? If so, generally describe (indicate whether public or private).**

The project scope requires access roads to and around the reservoir, as well as the detention pond. These will be new roads branching off from an existing access road on the west side of the project site. These roads will be on the City's property and will not be used by the public. No new public roads or improvements to existing public roads, streets, pedestrian, bicycle or state transportation facilities would be required.

- e. Will the project or proposal use (or occur in the immediate vicinity of) water, rail, or air transportation? If so, generally describe.**

Within the immediate vicinity of the Project, there is no use of water, rail, or air transportation. The proposed Project would not require use of, or interfere with, these resources.

- f. How many vehicular trips per day would be generated by the completed project or proposal? If known, indicate when peak volumes would occur and what percentage of the volume would be trucks (such as commercial and**

**nonpassenger vehicles). What data or transportation models were used to make these estimates?**

The proposed project will require approximately 10 vehicle trips per day during construction, on average.

After construction is complete and the facility is operating, there would be approximately 1 vehicle trip per week associated with the site. These trips would be necessary for occasional maintenance and inspections visits from personnel servicing the tank and telecommunication stations.

**g. Will the proposal interfere with, affect or be affected by the movement of agricultural and forest products on roads or streets in the area? If so, generally describe.**

There will be removal of on-site trees which will cause the transportation of forest products off of the site location. Otherwise, the proposed project or its construction is not anticipated to interfere with, affect, or be affected by the movement of agricultural and forest products on roads or streets.

**h. Proposed measures to reduce or control transportation impacts, if any:**

Long-term transportation impacts are not anticipated; therefore, mitigation measures have not been developed.

Site specific traffic control plans will be developed for the project to address short term construction related traffic impacts.

## **15. Public Services** [\[help\]](#)

**a. Would the project result in an increased need for public services (for example: fire protection, police protection, public transit, health care, schools, other)? If so, generally describe.**

The proposed project is not expected to create an increased need for public services. Emergency access during construction will comply with relevant policies administered by the City of Lacey.

**b. Proposed measures to reduce or control direct impacts on public services, if any.**

No impacts to public services are anticipated; therefore, no mitigation measures are proposed.

## **16. Utilities** [\[help\]](#)

**a. Circle utilities currently available at the site:**

electricity, natural gas, water, refuse service, telephone, sanitary sewer,

septic system, stormwater, other   X  

Other: There are currently no utilities available at the site. However, existing utilities within the local area include electric, natural gas, water, sewer, storm, and communications.

**b. Describe the utilities that are proposed for the project, the utility providing the service, and the general construction activities on the site or in the immediate vicinity which might be needed.**

The proposed project primarily involves providing water piping to connect the proposed reservoir with the water system. A new 16-inch water main will extend south from the project site to Intelco Loop SE and connect to the existing water main. In addition, stormwater piping will extend from the new on-site stormwater detention pond to the existing stormwater system along Intelco Loop SE. The existing water and storm drainage systems within the project vicinity are owned by the City.

The project will also require electrical service and communications facilities to connect the site with the City of Lacey's water system SCADA system. Electrical service will be provided by Puget Sound Energy (PGE). Standard telephone communication utilities are owned by CenturyLink Communications International Inc, and cable service communication utilities are owned by Comcast of Washington IV, Inc.

All utility trenches would be backfilled and compacted post construction.

**C. Signature [HELP]**

The above answers are true and complete to the best of my knowledge. I understand that the lead agency is relying on them to make its decision.

Signature: Leipunahelokalani Clarke P.E.  
Name of signee Leipunahelokalani Clarke, P.E.  
Position and Agency/Organization Utility Engineer / City of Lacey  
Date Submitted: 3-24-2020

K:\VAC\_Projects\19-2640 - Lacey Terry Cargil Reservoir\CAD\Sheets\19-2640-WA-C.dwg C-2 3/19/2020 9:41 AM BRETT WILLIAMS 23.05 (LMS Tech)

PARCEL NUMBER  
55740000300

PARCEL NUMBER  
74690000200

SSMH RIM = 220.91  
IE NW = 205.61  
IE W = 205.34  
IE E = 205.07

DROP STRUCTURE BETWEEN W  
& NW PIPE = 212.22  
DROP STRUCTURE  
SWLY = 212.22

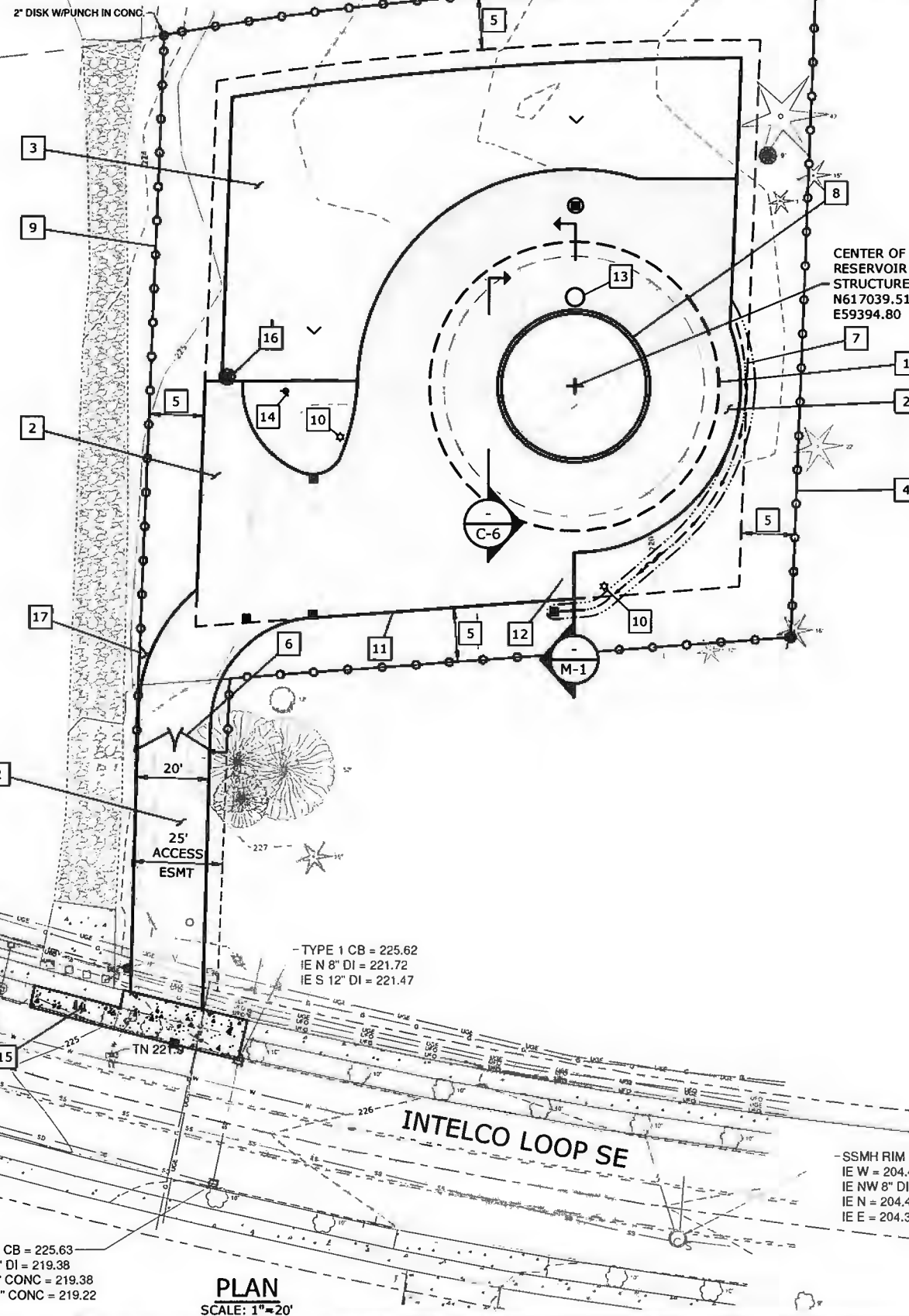
TYPE 1 CB = 220.96  
IE W 12" CONC = 216.93  
IE S 12" CONC = 216.92

TYPE 1 CB = 221.17  
IE N 12" CONC = 217.43  
IE E 12" CONC = 217.31

TYPE 1 CB = 225.63  
IE N 12" DI = 219.38  
IE S 12" CONC = 219.38  
IE W 12" CONC = 219.22

TYPE 1 CB = 225.62  
IE N 8" DI = 221.72  
IE S 12" DI = 221.47

SSMH RIM = 226.87  
IE W = 204.43  
IE NW 8" DI = 218.47  
IE N = 204.44  
IE E = 204.39



#### SITE LAYOUT KEY NOTES:

- 1 1.25 MG ELEVATED RESERVOIR, DIA= APPROX 80'
- 2 AC PAVEMENT ACCESS ROAD, SEE SHT C-X
- 3 STORMWATER DETENTION POND, SEE SHT X-X
- 4 FENCE, SEE DET X, SHT X-X
- 5 15' WIDE BUILDING SETBACK AND LEVEL 1 LANDSCAPING BUFFER, SEE SHT L-1
- 6 GATE, SEE DET X, SHT X-X
- 7 DITCH, SEE DET X, SHT X-X
- 8 1.25 MG ELEVATED RESERVOIR BASE COLUMN, DIA APPROX 42'
- 9 PROPERTY LINE FOR PARCEL NO. 58050000601
- 10 LIGHT POLE, SEE DET X, SHT E-X
- 11 PARKING AREA
- 12 VALVE VAULT, SEE DET X, SHT X-X
- 13 OF STRUCTURE, SEE SHT X-X
- 14 FH ASSY
- 15 DRIVEWAY APPROACH
- 16 STORMWATER FLOW CONTROL STRUCTURE, SEE SHT X-X
- 17 3' MAN GATE

# 30% SUBMITTAL

| NO. | DATE | BY | REVISION |
|-----|------|----|----------|
|     |      |    |          |
|     |      |    |          |
|     |      |    |          |
|     |      |    |          |
|     |      |    |          |
|     |      |    |          |
|     |      |    |          |
|     |      |    |          |
|     |      |    |          |

NOTICE  
0 1/2 1  
IF THIS BAR DOES  
NOT MEASURE 1"  
THEN DRAWING IS  
NOT TO SCALE

MWH  
DESIGNED  
BAW  
DRAWN  
SSA  
CHECKED



**murraysmith**



**CITY OF LACEY  
TERRY CARGIL  
RESERVOIR**

**SITE LAYOUT PLAN - RESERVOIR**

PROJECT NO.: 19-2640 SCALE: AS SHOWN DATE:



K:\TAC\_Projects\19-2640 - Lacey Terry Cargil Reservoir\CAD\Sheets\19-2640-WA-C.dwg C-9 3/19/2020 5:19 PM TABATHA.DYE 23.0s (LMS Tech)

PARCEL NUMBER  
55740000300

PARCEL NUMBER  
74690000200

SSMH RIM = 220.91  
IE NW = 205.61  
IE W = 205.34  
IE E = 205.07  
  
DROP STRUCTURE BETWEEN W  
& NW PIPE = 212.22  
DROP STRUCTURE  
SWLY = 212.22  
  
- TYPE 1 CB = 220.96  
IE W 12" CONC = 216.93  
IE S 12" CONC = 216.92

TYPE 1 CB = 221.17  
IE N 12" CONC = 217.43  
IE E 12" CONC = 217.31

TYPE 1 CB = 225.63  
IE N 12" DI = 219.38  
IE S 12" CONC = 219.38  
IE W 12" CONC = 219.22

- TYPE 1 CB = 225.62  
IE N 8" DI = 221.72  
IE S 12" DI = 221.47

SSMH RIM = 226.87  
IE W = 204.43  
IE NW 8" DI = 218.47  
IE N = 204.44  
IE E = 204.39

PLAN  
SCALE: 1"=20'

**SITE PIPING KEY NOTES:**

- 1 1.25 MG ELEVATED RESERVOIR  
DIA= APPROX 80'  
OF EL= 337.5
- 2 1.25 MG ELEVATED RESERVOIR BASE  
COLUMN  
DIA= APPROX 42'  
BASE EL= APPROX 227.5
- 3 DITCH
- 4 EXIST ACCESS AND UTILITY ESMT

**WATER SCHEDULE:**

- A1 N, E  
FURNISH & INSTALL:  
1-12" 90° BEND, FLG  
1-12" GV, FLG
- A2 N, E  
FURNISH & INSTALL:  
1-12" FLEXTEND, MJ
- A3 N, E  
FURNISH & INSTALL:  
1-16"x12" TEE, MJxFLG
- B1 N, E  
FURNISH & INSTALL:  
1-16" 90° BEND, FLG  
1-16" BFV, FLG
- B2 N, E  
FURNISH & INSTALL:  
1-16" FLEXTEND, MJ
- B3 N, E  
FURNISH & INSTALL:  
1-16" 90° BEND, MJxFLG
- B4 N, E  
FURNISH & INSTALL:  
1-16" 45° BEND, MJ
- B5 N, E  
FURNISH & INSTALL:  
1-16" 45° BEND, MJ W/ DEFL
- B6 N, E  
FURNISH & INSTALL:  
1-16"x12" TEE, FLG  
2-12" LONG BODY SLEEVE  
1-16" BFV, FLGxMJ  
CONNECT TO EXIST 12"
- B7 N, E  
FURNISH & INSTALL:  
1-6" FH ASSY  
PER CITY STD DWG 6-8  
1-12" LONG BODY SLEEVE
- B8 N, E  
FURNISH & INSTALL:  
1-6" FH ASSY  
PER CITY STD DWG 6-8

**30% SUBMITTAL**

| NO. | DATE | BY | REVISION |
|-----|------|----|----------|
|     |      |    |          |
|     |      |    |          |
|     |      |    |          |
|     |      |    |          |

NOTICE

IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO SCALE

MWH  
DESIGNED  
BAW  
DRAWN  
SSA  
CHECKED

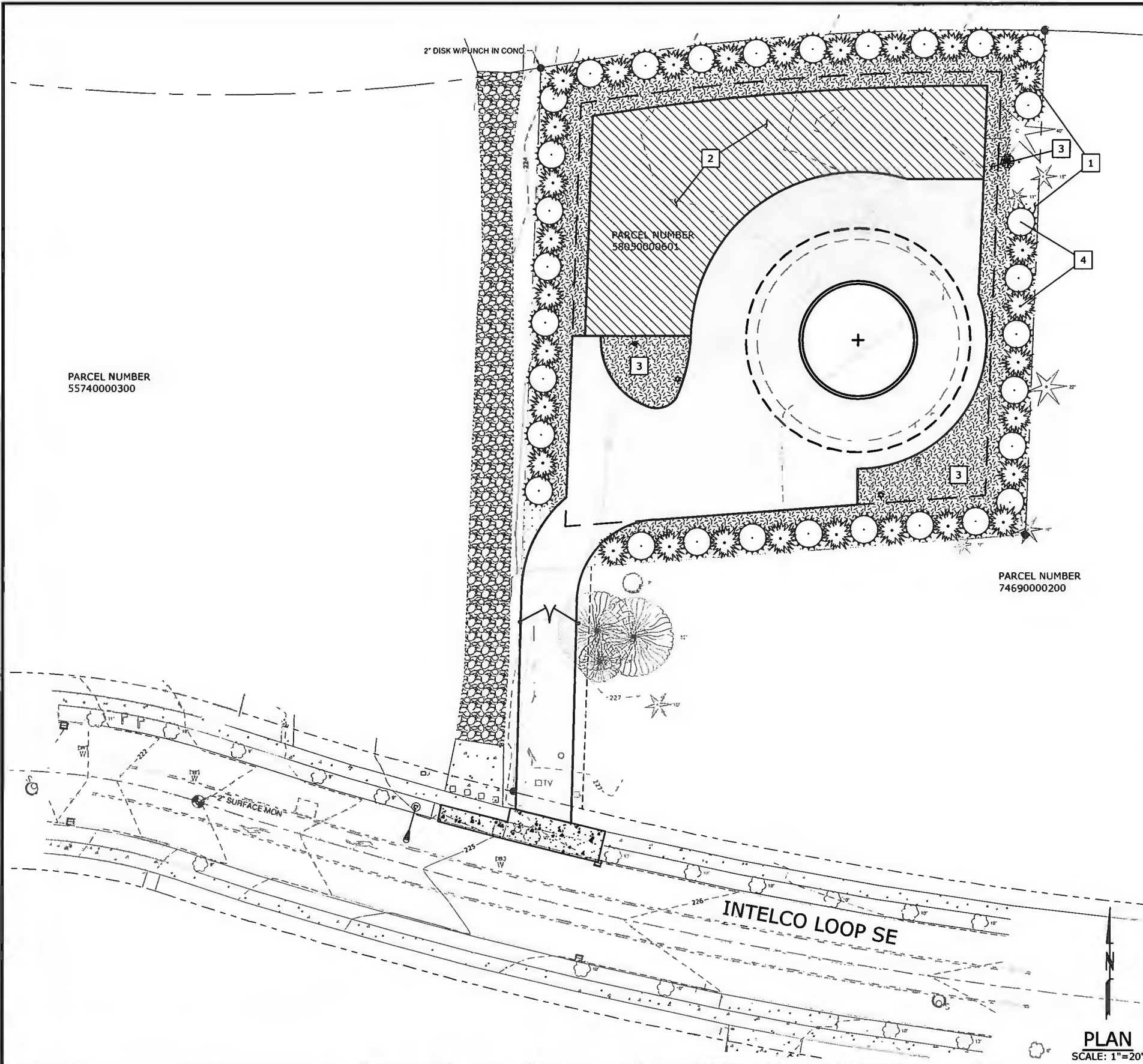


CITY OF LACEY  
TERRY CARGIL  
RESERVOIR

SHEET  
C-9  
18 of X

PROJECT NO.: 19-2640 SCALE: AS SHOWN DATE: FEBRUARY 2020

K:\TAC\_Projects\19-2640 - Lacey Terry Cargil Reservoir\CAD\Sheets\19-2640-WA-L.dwg L-1 3/18/2020 10:56 PM TABATHA.DYE 23.0s (LMS Tech)



### PLANT SCHEDULE"

- 1 LANDSCAPED AREA, AREA = APPROX 5,924 SF
- 2 HYDROSEED, POND MIX
- 3 HYDROSEED, FESCUE BLEND
- 4 PROP CONIFEROUS TREES, TOTAL <58> TREES  
(PLANTED 10 FT ON-CENTER, 10 FT FROM SITE BOUNDARY)

| QUANTITY | COMMON NAME | BOTANICAL NAME       | SIZE |
|----------|-------------|----------------------|------|
| - <29>   | ARBOR VITAE | (Thuja Occidentalis) | X'   |
| - <29>   | ARBOR VITAE | (Thuja Occidentalis) | X'   |

NOTE: AN AUTOMATIC IRRIGATION SYSTEM HAS NOT BEEN PROVIDED FOR THIS DESIGN. DROUGHT-TOLERANT SPECIES AND A 8-INCH MAT OF MOISTURE-RETAINING TOPSOIL HAVE BEEN SPECIFIED IN LIEU OF AN IRRIGATION SYSTEM. CONTRACTOR SHALL MONITOR THE CONDITION OF THE PLANT MATERIAL FOR A PERIOD OF ONE (1) YEAR FOLLOWING ACCEPTANCE OF THE WORK AND MANUALLY WATER AS NECESSARY. CONTRACTOR SHALL MONITOR WEEKLY.

NOTE: ALL PLANT INSTALLATION TO TAKE PLACE BETWEEN OCTOBER 15 - MARCH 1ST UNLESS AUTHORIZED BY THE ENGINEER AND OWNER.

MAINTENANCE: ENHANCEMENT SITE WILL BE ADDED TO THE FOREST MANAGEMENT MAINTENANCE INVENTORY AND WILL BE WATERED AND MAINTAINED FOR A MINIMUM OF 3 YEARS.

EXHIBIT

9

# 30% SUBMITTAL

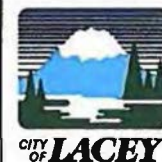
| NO. | DATE | BY | REVISION |
|-----|------|----|----------|
|     |      |    |          |
|     |      |    |          |
|     |      |    |          |
|     |      |    |          |
|     |      |    |          |

NOTICE  
0 1/2 1  
IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO SCALE

MWH  
DESIGNED  
BAW  
DRAWN  
SSA  
CHECKED



murraysmith



CITY OF LACEY  
TERRY CARGIL  
RESERVOIR

LANDSCAPE SITE PLAN,  
GENERAL NOTES AND SYMBOLS

SHEET

L-1

50 of X

PROJECT NO.: 19-2640 SCALE: AS SHOWN DATE: FEBRUARY 2020

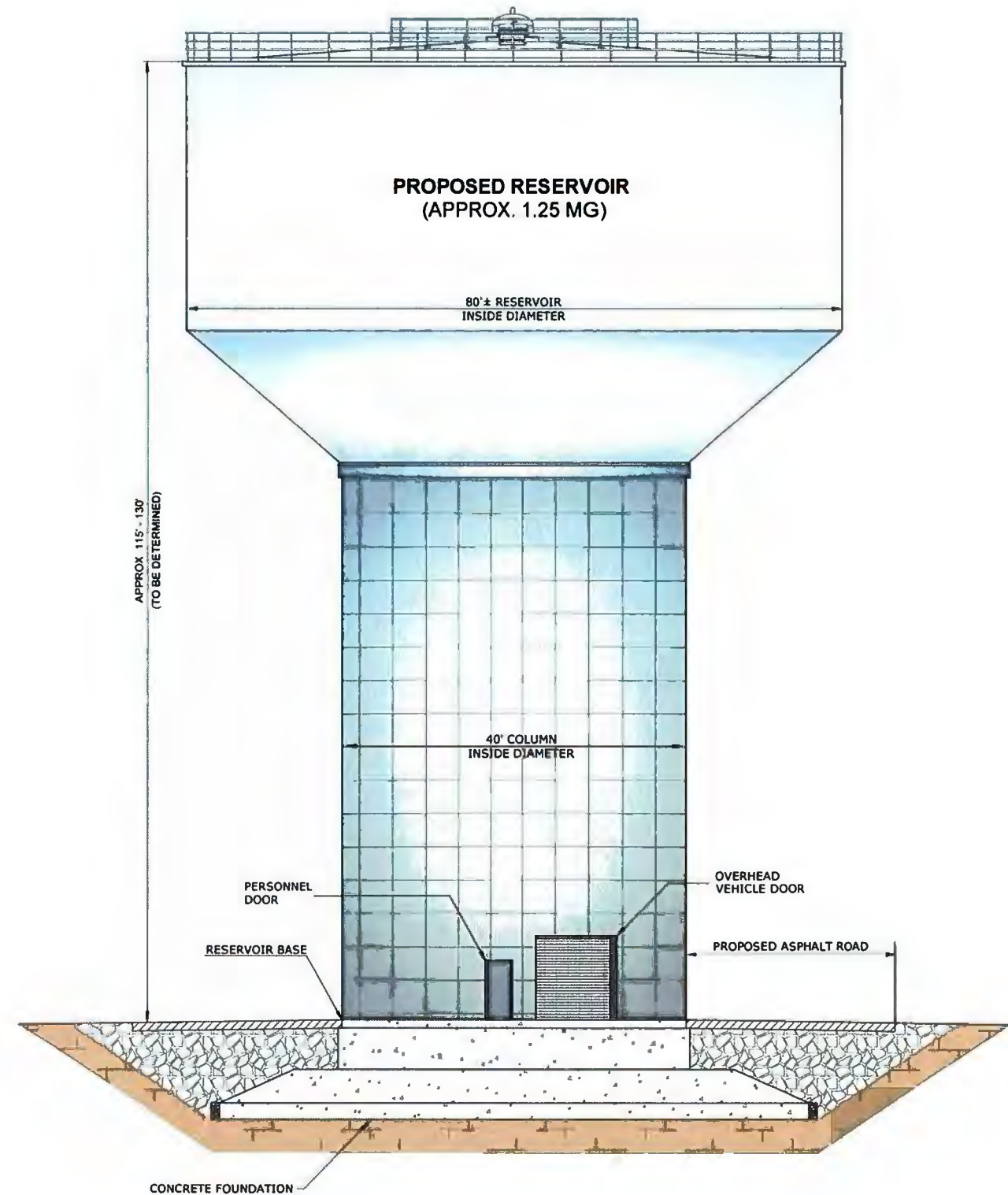
# Terry Cargil Reservoir

## Site Perspectives



# Project Design

- › 1.25 million gallons (MG) Composite Elevated Tank
- › Designed to meet all applicable seismic codes for structural safety



# Views



Before

After

# Views



Before



After  
(With Trees Matured)

# Views



Before



After

# Views

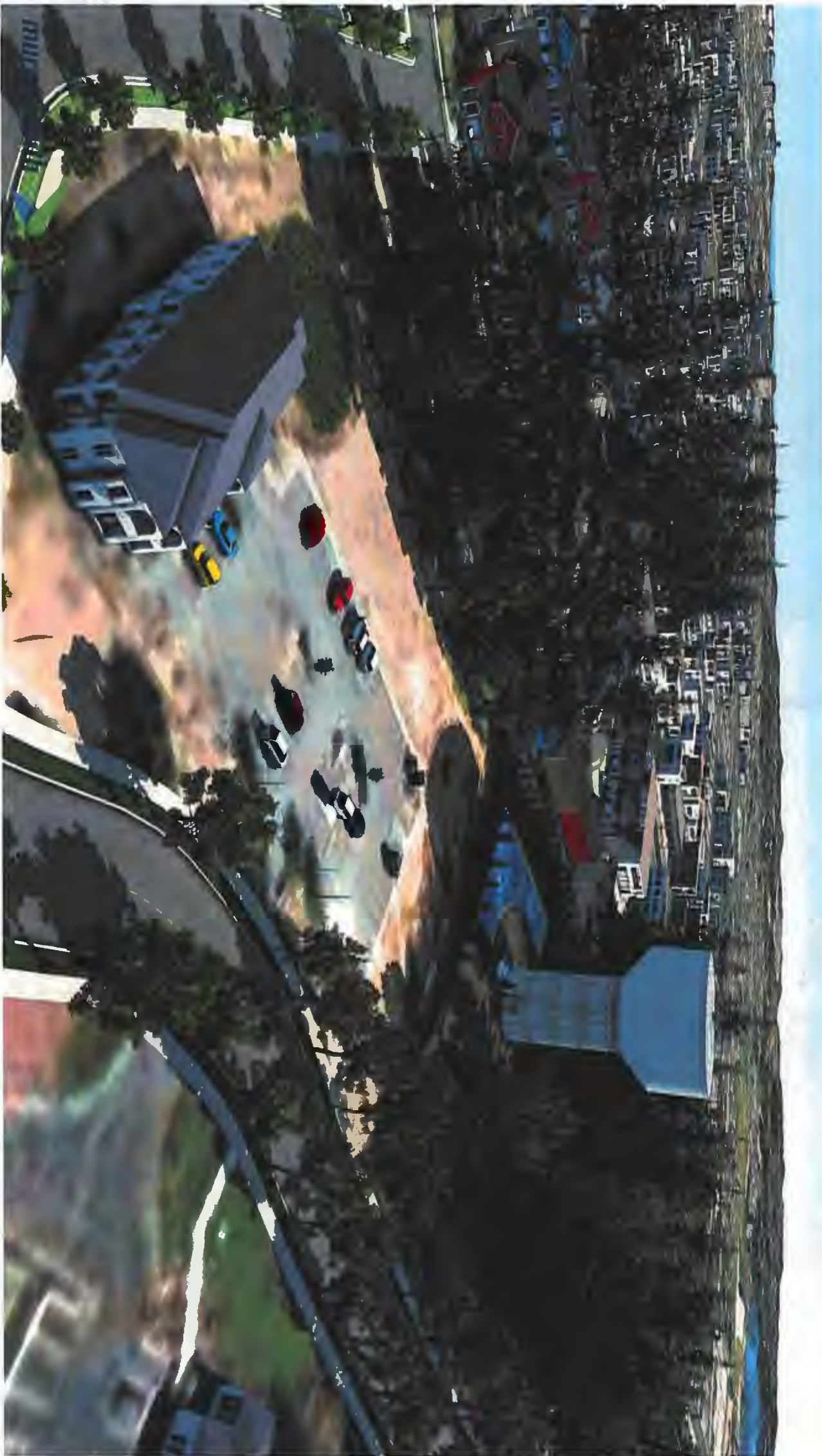


Before



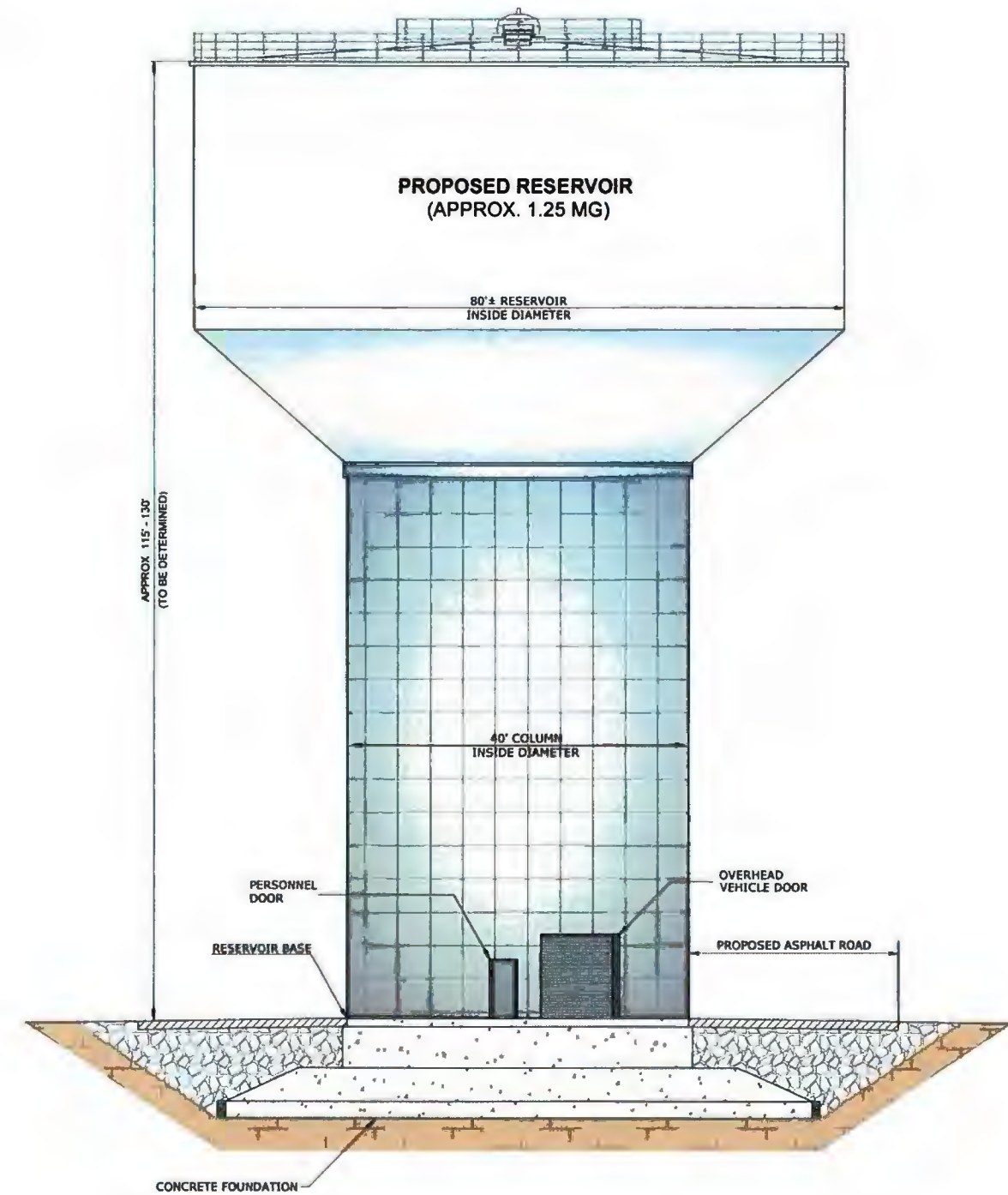
After  
(With Trees Matured)

# Renderings



After

# Reservoir



**CITY OF LACEY**

**TERRY CARGIL RESERVOIR PROJECT**

**CIP ST-02**

## **Stormwater Report**

**March 2020**



**Prepared by:**

**Murraysmith, Inc  
1145 Broadway Plaza, Suite 1010  
Tacoma, WA 98402-3583**



# TABLE OF CONTENTS

## 1. PROJECT OVERVIEW

|   |                        |   |
|---|------------------------|---|
| 1 | Project Overview ..... | 1 |
|---|------------------------|---|

## 2. EXISTING CONDITIONS

|   |                           |   |
|---|---------------------------|---|
| 2 | Existing Conditions ..... | 2 |
|---|---------------------------|---|

## 3. PROPOSED CONDITIONS

|       |                                      |   |
|-------|--------------------------------------|---|
| 3     | Proposed Conditions .....            | 3 |
| 3.1   | Summary of Core Requirements .....   | 3 |
| 3.2   | Onsite BMP Discussion .....          | 4 |
| 3.2.1 | <i>Lawn and Landscape Area</i> ..... | 4 |
| 3.2.2 | <i>Roof Area</i> .....               | 4 |
| 3.2.3 | <i>Other Hard Surfaces</i> .....     | 5 |

## 4. PERMANENT STORMWATER CONTROL PLAN

|       |                                           |   |
|-------|-------------------------------------------|---|
| 4.1   | Existing Site Hydrology .....             | 5 |
| 4.2   | Developed Site Hydrology .....            | 6 |
| 4.3   | Flow Control System .....                 | 6 |
| 4.4   | Offsite Analysis .....                    | 7 |
| 4.4.1 | <i>Upstream Drainage</i> .....            | 7 |
| 4.4.2 | <i>Downstream Condition</i> .....         | 7 |
| 4.5   | Conveyance Analysis .....                 | 8 |
| 4.5.1 | <i>Onsite Conveyance System</i> .....     | 8 |
| 4.5.2 | <i>Downstream Conveyance System</i> ..... | 8 |

## 5. SPECIAL REPORTS AND STUDIES

## 6. OTHER PERMITS

## LIST OF FIGURES

|                               |   |
|-------------------------------|---|
| Figure 1-1 Vicinity Map ..... | 2 |
|-------------------------------|---|

## LIST OF TABLES

|                                                                     |   |
|---------------------------------------------------------------------|---|
| Table 1 Land-use of Developed Basin to Detention Pond .....         | 6 |
| Table 2 Flow Rates of pre-developed and Post-developed Basins ..... | 7 |
| Table 3 Pond Riser Schedule .....                                   | 7 |

## APPENDICES

|                                                                               |  |
|-------------------------------------------------------------------------------|--|
| Appendix A – Existing Conditions Map                                          |  |
| Appendix B – Proposed Land-use Map                                            |  |
| Appendix C – Minimum Requirements Flowcharts                                  |  |
| Appendix D – FEMA Map                                                         |  |
| Appendix E – WWHM Modeling Report                                             |  |
| Appendix F – Downstream Map                                                   |  |
| Appendix G – Conveyance Calculation                                           |  |
| Appendix H – NRCS Soil Map                                                    |  |
| Appendix I – Geotechnical Memorandum, HWA GeoSciences, Inc., January 28, 2020 |  |
| Appendix J – Soils Report, Pacific Groundwater Group, June 3, 2019            |  |

# Storm Drainage Report

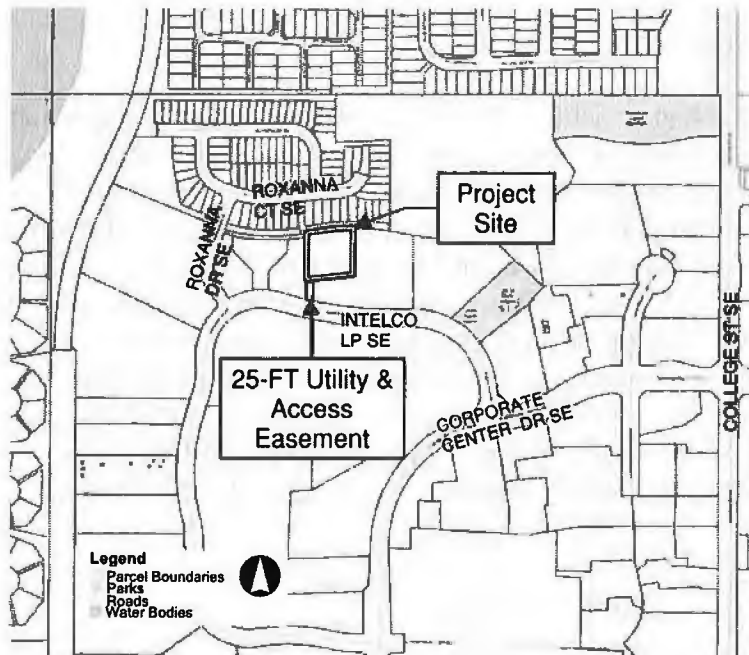
## 1. Project Overview

Murraysmith, Inc. (Murraysmith) has prepared a summary of the storm drainage design for the City of Lacey's (City) Terry Cargil Reservoir Project. This report provides a summary of the stormwater design and supplements the Terry Cargil Reservoir Project Report (Project Report). This report will be used by the City for permitting purposes for the Terry Cargil Reservoir project. The reservoir site is located at 4504B Intelco Loop SE, Lacey, WA 98503 (Parcel No. 58050000601). The project vicinity map is provided as Figure 1-1. Currently, the project site is primarily covered with vegetation generally consisting of native trees and shrubs. To date, no facilities have been constructed on the project site. The City plans to construct a new 1.25 million gallon (MG) composite elevated storage tank with an overflow elevation of approximately 337 feet above mean sea level. This project also involves utility and stormwater improvements. All stormwater drainage design has been prepared in accordance with the City's Municipal Code Chapter 14.27 and the requirements of the City's 2016 Stormwater Design Manual (2016 SDM).

A detention pond located within the northern portion of the site is proposed to mitigate the stormwater runoff from the project site. In addition to surface water runoff, the proposed detention pond will be sized to temporarily detain water that can be released in the tank's emergency overflow event. Upon completion of construction activities, the disturbed areas on-site will be landscaped to meet zoning requirements.

The on-site soil is classified by the National Resources Conservation Services (NRCS) as Alderwood gravelly sandy loam with 0 to 8 percent slopes and Yelm fine sandy loam with 0 to 3 percent slopes. The soil map for the project site is provided in Appendix H. Geotechnical explorations performed by HWA GeoSciences, Inc (HWA) (2020) indicated wet soils in the upper layer beneath the topsoils. Underlying the wet soils are silty sand layers that contain more than 45 percent fines, which indicates that the native soil has very low permeability and a potential for perched water conditions. Groundwater was observed at 55 feet below ground level in borehole BH-1 with saturated soils consisting of very dense, silty fine to medium sand. The soils report prepared by Pacific Groundwater Group (PGG) (2019) recommends a design infiltration rate of 0.3 and 0.4 in/hr at the two onsite tests locations. However, the design infiltration rate is calculated based on an assumption of a pond bottom being 1.5 feet depth below existing grade, and the proposed detention pond is 4 feet below existing ground. To be conservative, the contribution of infiltration is not taken into consideration when sizing the detention pond. The Geotechnical Memorandum prepared by HWA (2020) and the Soils Report prepared by PGG (2019) are provided in Appendix I and Appendix J, respectively.

Figure 1-1  
Vicinity Map



Note: Reprinted from Thurston County GeoData Center

## 2. Existing Conditions

The project site is located on 0.8 acres of property owned by the City (Parcel No. 58050000601). The project site is located within the City of Lacey, WA, situated approximately 100 feet south of the Roxanna Ct SE, and approximately 100 feet north of Intelco Loop SE. A 25-foot wide access and utility easement is located on the southeastern corner of the property line and extends from the project site to Intelco Loop SE.

The property elevations vary from approximately 224 feet above mean sea level (MSL) in the northwest corner to approximately 228 feet above MSL to the southeast corner. The project site is primarily covered with vegetation generally consisting of native trees and shrubs. To date, no facilities have been constructed on the project site and indicates 0.80 acres (34,848 sq.ft) of existing pervious surfaces of forested condition. An Existing Conditions Map of the project site can be found in Appendix A. Due west of the project site is a concrete walking trail that borders the project site. South Sound Driving School is located further west, Horizon Learning Center is located southwest, TwinStar Credit Union is located south, and Jacob Smith House is located east of the project site. Due north of the project site are the Lacey Park Apartments and a residential neighborhood around Roxanna Loop SE.

Existing stormwater runoff from the site sheet flows to the southwest direction and is collected through catch basins located on the north side of the Intelco Loop SE, then directs west towards the close conveyance system on Intelco Loop SE, and eventually discharges into the Smith Lake located approximately 1,000 feet west of the project site. The site is located outside of the flood

plain, as shown on the National Flood Hazard Layer FIRMette Map (Panel #53067C0189F). The FIRMette Map is provided in Appendix D.

### 3. Proposed Conditions

The proposed construction activities will result in changes to the site topography. This project will include an at-grade reservoir located at the southeastern portion of the parcel, and associated utilities and site improvements, which include an access and maintenance road, detention pond located within the north portion of the site, and site landscaping. The proposed construction activities will result in a developed basin comprised of 0.360-acre (15,684 sf) of impervious surfaces and 0.443-acre (19,309 sf) of pervious surfaces. A detailed land-use of the post-developed basin can be found in Appendix B. A ditch around the eastern side of the proposed reservoir is proposed for collecting the stormwater runoff from a portion of the eastern landscape, half the rooftop and a portion of the maintenance road. The stormwater from the ditch flows to the catch basin located to the south of the reservoir. Stormwater runoff from the remaining areas of the developed site will be collected by a series of catch basins before discharging to the detention pond.

#### 3.1 Summary of Core Requirements

The stormwater Core Requirements (CRs) are defined by the City's Municipal Code Chapter 14.27.050 as listed in the 2016 SDM. The existing site has less than 35% existing impervious surface coverage; and therefore, the project will abide by new development requirements. The proposed project improvements will result in 15,684 square feet of new plus replaced hard surfaces, which triggers review of CR 1 through CR 9. Flowcharts used to determine core requirements can be found in Appendix C.

1. CR 1 – Preparation of Stormwater Site Plans. The required elements of the Stormwater Site Plans are provided through the Project Report, Construction Plans, and this storm report.
2. CR 2 – Construction Storm Water Pollution Prevention (CSWPP). A Construction SWPP plan (CSWPPP) will be prepared for this project, following the City's template, with the 60% Submittal, and an Erosion Control Plan will be provided in the engineering drawings.
3. CR 3 – Source Control of Pollution. Source control best management practices (BMPs) are identified through the CSWPPP for construction activities. Source control BMPs will also be used for the protection of on-site material and operational practices.
4. CR 4 – Preservation of Natural Drainage Systems and Outfalls. The project proposes to maintain the natural drainage patterns of the site. Under existing conditions, stormwater runoff from the site is tributary to the close conveyance system within Intelco Loop SE to the south of the site. Stormwater runoff from the post-developed site will be mitigated with the proposed detention pond before discharging to the conveyance system within Intelco Loop SE without causing erosion or flooding impacts to adjacent properties.

5. CR 5 – On-site Stormwater Management. City requires projects to employ on-site stormwater water management BMPs to the maximum extent feasible without causing flooding or erosion impacts. As discussed above, the project site triggers the review of the CR 1 through CR 9. Therefore, the feasibility of each BMP from List #2 shall be reviewed. A detailed discussion of each BMP in List #2 is shown in Section 3.2 below.
6. CR 6 – Runoff Treatment. Proposed site access and maintenance roads will result in a total of 10,657 square feet of impervious surface. Maintenance access roads and the driveway are not considered regularly used by motor vehicle since they are restricted access and infrequently used. According to the 2016 SDM, the driveway and maintenance access roads qualify as “non-pollution generating surfaces” and the project site is exempt from water quality treatment requirement.
7. CR 7 – Flow Control. The project will not propose to discharge directly or indirectly into exempt surface waters. The project contains over 10,000 square feet of impervious surfaces in the threshold discharge area. Therefore, standard flow control requirement applies to this project. A detention pond located within the northern portion of the site is proposed to mitigate the stormwater runoff from the project site. In addition to surface water runoff, the proposed detention pond will be sized to temporarily detain water that can be released in a tank’s emergency overflow event. The stormwater detention facility will be sized for the larger of either the stormwater requirements or the volume of water anticipated during a tank overflow event.
8. CR 8 – Wetlands Protection. This project is not known to be directly tributary to a downstream wetland, so negative impacts are not anticipated to wetlands in the downstream watercourse.
9. CR 9 – Operation and Maintenance. Operations and maintenance information will be provided within the 60% submittal.

### *3.2 Onsite BMP Discussion*

Per the 2016 SDM, projects triggering CR 1 through CR 9 shall meet on-site stormwater management BMPs from List #2. BMPs from List #2 were evaluated as follows:

#### *3.3.1 Lawn and Landscape Area*

Per design guidelines for Post-Construction Soil Quality and Depth, the project will retain soil to the maximum extent practicable. All other disturbed lawn and landscaped areas will be amended per BMP T5.13 including topsoil, mulch, and compost.

#### *3.3.2 Roof Areas*

1. Full dispersion in Chapter 7, Section 7.4.2, or downspout infiltration in Chapter 7, Section 7.4.10.

Response: Full dispersion was deemed infeasible since the required vegetated ground cover and flowpath are not available on the project site.

2. Bioretention in Chapter 7, Section 7.4.4.

Response: Bioretention was deemed infeasible since the required setback is not available onsite.

3. Downspout dispersion in Chapter 7, Section 7.4.10.

Response: Downspout dispersion was deemed infeasible since the required flowpath is not available onsite.

4. Perforated stub-out connections in Chapter 7, Section 7.4.10.

Response: A perforated stub-out connection was deemed infeasible since the required setback was not available onsite.

### *3.3.3 Other Hard Surfaces*

1. Full dispersion in Chapter 7, Section 7.4.2.

Response: Full dispersion was deemed infeasible since as the required vegetated ground cover and flowpath are not available on the site.

2. Permeable pavement in Chapter 7, Section 7.4.6, or rain gardens in Chapter 7, Section 7.4.5, or bioretention in Chapter 7, Section 7.4.4.

Response: Permeable pavement was deemed infeasible since the onsite soils consist of high fine contents and shallow dense till soil according to the geotechnical report.

3. Sheet flow dispersion or concentrated flow dispersion in Chapter 7, Section 7.4.2.

Response: Sheet flow dispersion or concentrated flow dispersion was deemed infeasible since the required vegetation area and flowpath are not available onsite.

## **4. Permanent Stormwater Control Plan**

### *4.1 Existing Site Hydrology*

The existing stormwater runoff from the site sheet flows to the southwest direction and is collected through the catch basins located in the north side of the Intelco Loop SE and is directed to the west within the close conveyance system on Intelco Loop SE. Flow control is required for the project with the intent of ensuring that peak flows from the project site do not exceed that existed in the pre-developed condition. This is generally defined in 2016 SDM as being the native forest vegetation that existed prior to site development. The entire area of the site to be disturbed by the project will be modeled as native forest for the existing site condition. Based on the review

of site information, the existing conditions were entered into the WWHM model as forested condition.

#### 4.2 Developed Site Hydrology

Upon completion, the contribution basin area will contain the rooftop of the reservoir, the paved access and maintenance road, landscaping, and the pond area. Since all of the disturbed area that is not converted to impervious surfaces will meet minimum quality and depth requirements of BMP T5.13, these surfaces will be modeled as “pasture” instead of “lawn” according to Section 7.4.1 of Chapter 7 in 2016 SDM. Table 1 below summaries the land-use of the developed condition for the hydrological model. *A detailed land-use of post-developed basin can be found in Appendix B.*

| Sub-Basin<br>(To Pond) | Land-use                       | WWHM<br>Description | Area (acre)  |
|------------------------|--------------------------------|---------------------|--------------|
| Onsite A               | Rooftop                        | Rooftops/Flat       | 0.115        |
| Onsite B               | Access and<br>Maintenance Road | Roads/Flat          | 0.245        |
| Onsite C               | Landscape                      | C, Pasture, Flat    | 0.315        |
| Onsite D               | Pond                           | C, Pasture, Mod     | 0.129        |
| Total                  |                                |                     | <b>0.803</b> |

Table 1 Land-use of developed basin to detention pond.

#### 4.3 Flow Control System

Since the project proposes more than 10,000 sq. ft. of impervious area, flow control is required according to 2016 SDM. A detention pond located in the northwestern portion of the site is proposed. The Western Washington Hydraulic Model (WWHM2012) is used to size the detention pond. The stormwater runoff released from the detention pond will match 50% of the predeveloped 2-year storm event up to the full predeveloped 50-year storm event of the forested condition. The required detention pond volume is 0.267 acre-ft (11,603 cubic feet), which will require an outlet structure equipped with an 18-inch riser and three orifices according to the WWHM modeling program. A WWHM modeling report is provided in Appendix E.

In addition to surface water runoff, the proposed detention pond will be sized to temporarily detain water that can be released in a tank's emergency overflow event. The volume of water anticipated during an overflow event is the product of the flow rate of the reservoir's largest supply source and the amount of time required for city personal to respond to the overflow event. In this case, a flow rate of 1,000 gpm for 60 minutes, or a volume of 8,020 cubic feet, will be anticipated for an overflow event. The stormwater detention facility will be sized for the larger of either the stormwater requirement or the volume of water anticipated during a tank overflow event. Therefore, the detention pond will be sized to meet the required volume for the

stormwater requirement. A 3-foot deep detention pond with a total volume of 11,829 cubic feet is proposed for both stormwater runoff mitigation and an emergency overflow event.

The stormwater runoff flow rates of the pre-developed and post-developed basins during each storm event are shown in Table 2 below:

| Storm Event | Pre-developed Flow Rate (cfs) | Unmitigated Developed Flow Rate (cfs) | Mitigated Flow Rate (cfs) |
|-------------|-------------------------------|---------------------------------------|---------------------------|
| 2           | 0.038                         | 0.172                                 | 0.024                     |
| 5           | 0.069                         | 0.253                                 | 0.039                     |
| 10          | 0.097                         | 0.317                                 | 0.051                     |
| 25          | 0.142                         | 0.411                                 | 0.071                     |
| 50          | 0.184                         | 0.491                                 | 0.088                     |
| 100         | 0.233                         | 0.582                                 | 0.108                     |

Table 2 Flow Rates of Pre-developed and Post-developed Basins.

An 18-inch flat riser is provided to control the mitigated discharge rates from the detention pond. The following is a summary of the riser schedule:

| Elevation | Type    | Size (inch) |
|-----------|---------|-------------|
| 323.00    | Orifice | 0.77        |
| 324.72    | Orifice | 1.38        |
| 325.48    | Orifice | 0.91        |

Table 3 Pond Riser Schedule.

## 4.4 Offsite Analysis

### 4.4.1 Upstream Drainage

There is no stormwater runoff from upstream basin from the adjacent properties flowing to the project site according to survey of the site.

### 4.4.2 Downstream Condition

The stormwater runoff from the project site will be collected and conveyed to the proposed detention pond with the proposed catch basins and ditch. The detention pond will release stormwater through the outlet structure to the existing catch basin located on Intelco Loop SE. The stormwater will then flow west within the close conveyance system on Intelco Loop SE for approximately 350 feet before being directed north for approximately 450 feet to reach the intersection with Roxanna Loop SE. The stormwater will then flow west within the conveyance

system on Roxanna Loop and discharges into Smith Lake to reach the downstream limit. A downstream map is provided in Appendix F.

## 4.5 Conveyance Analysis

### 4.5.1 Onsite Conveyance System

Onsite conveyance system of the stormwater has been calculated to convey the undetained 100-year storm event of 0.58-cfs and the emergency overflow of the reservoir of 1,000 gpm (2.23-cfs). The minimum pipe of onsite close conveyance system is 12-inch and 0.5% slope, which has the flow capacity of 2.728-cfs according to the Manning's Equation. The proposed ditch along the eastern side of the reservoir has the flow capacity of 6.684-cfs according to the Manning's Equation. Therefore, the onsite conveyance system is adequate to convey both the undetained 100-year peak flow and emergency overflow from the reservoir. The detailed calculations are provided in Appendix G.

### 4.5.2 Downstream Conveyance System

The proposed pipe downstream of the outlet/overflow structure is 15-inch pipe with 0.5% slope, which has the flow capacity of 4.95-cfs (2,222 gpm) according to the Manning's Equation. The existing conveyance system within Intelco Loop SE have the flow capacity of 3.74-cfs (12-inch with 0.94% slope). Therefore, the proposed and existing downstream conveyance systems have adequate conveyance capacity for both unmitigated overflow of the 100-year storm event (0.58-cfs) and an emergency overflow event of 1,000 gpm (2.23-cfs). The detailed calculations are provided in Appendix G.

## 5. Special Reports and Studies

- HWA Geosciences Inc. (January 2020). *Project Technical Memorandum: Geotechnical Parameters for Analysis – Terry Cargil Reservoir*. Bothell, WA: Author. (Appendix I)
- Pacific Groundwater Group. (June 2019). *Soils Report: Intelco Loop Site Development, Lacey, WA*. Seattle, WA: Author. (Appendix J)

## 6. Other Permits

- Conditional Use Permit (City of Lacey)
- General Land Use Application (City of Lacey)
- State Environmental Policy Act Environmental Checklist (City of Lacey)
- Building Permit (City of Lacey)
- Foundation Permit (City of Lacey)

- New Commercial Permit (City of Lacey)
- Grading Permit (City of Lacey)
- Land Clearing Permit Exemption Request (City of Lacey)
- Electrical Permit (City of Lacey)
- Mechanical Permit (City of Lacey)

## 7. References

City of Lacey (2016). *City of Lacey Stormwater Design Manual*. Lacey, WA: Author.

Federal Emergency Management Agency (FEMA). (September 2016). [National Flood Hazard Layer: Flood Insurance Rate Map; Panel 53067CD189F]. Retrieved February 13, 2020 from <https://hazards-fema.maps.arcgis.com/apps/webappviewer/index.html?id=8b0adb51996444d4879338b5529aa9cd>

HWA Geosciences Inc. (January 2020). *Project Technical Memorandum: Geotechnical Parameters for Analysis – Terry Cargil Reservoir*. Bothell, WA: Author.

Natural Resources Conservation Service (NRCS). (September 2019). *Soil Map – Thurston County Area, Washington*. Retrieved February 13, 2020 from <https://websoilsurvey.nrcs.usda.gov/app/WebSoilSurvey.aspx>

Pacific Groundwater Group. (June 2019). *Soils Report: Intelco Loop Site Development, Lacey, WA*. Seattle, WA: Author.

Thurston County GeoData. (2020). Data for Parcel No. 58050000601. Retrieved from <https://www.geodata.org/parcelinfo/details.ext.html?id=58050000601>



### Land-use of Post-developed Basin:

| GRADING POINTS |         |               |             |
|----------------|---------|---------------|-------------|
| NORTHING       | EASTING | ELEVATION     | DESCRIPTION |
| 0.0000         | 0.0000  | 0.0000        | POINT       |
| 0.0000         | 0.0     | < TO FOLLOW > | POINT       |
| 0.0000         | 0.0000  | 0.0000        | POINT       |
| 0.0000         | 0.0000  | 0.0000        | POINT       |

Detention Pond Area:  
5,599 SF/0.129 Acres  
Modeled as "C, Pasture, Mod"

PARCEL NUMBER  
55740000300

SSAH RBA = 220 9'  
NE NW = 205 01  
NE W = 205 34  
NE E = 205 07

DROP STRUCTURE BETWEEN W  
& HW PIPE NOTED??  
DROP STRUCTURE  
SWLY=01222

TYPE 1 CH = 270.00  
NE W 12' CORNER = 216.03  
NE S 12' CORNER = 216.02

**Access and Maintenance Road:**  
10,657 SF/0.244 Acres  
Modeled as "Roads/Flat"

INTELCO LOOP SE

TYPE 1 CE = 221.17  
IE N 12" CONC = 217.43  
IE F 12" CONC = 217.91

TYPE 1 CR - 225.03  
IE N 12" DI - 219.3H  
IE S 12" LONG - 219.3D  
IE W 12" LONG - 219.22

**PLAN**  
**SCALE: 1"=20'**

1 STORM DETENTION POND, SEE SHT C-X  
2 DITCH, SEE SHT X-X

**Rooftop:**  
5,027 SF/0.115 Acres  
Modeled as "Roof Tops/Flat"

**A1** M, E  
FURNISH & INSTALL:  
1-48" AIR GAP/DECHLOOR MH  
RJM=XXX  
IE 12" IN = XXX (ABOVE)  
IE 12" OUT (N) = XXX

**A2** N, E  
FURNISH & INSTALL:  
1-48" TYPE 2 CB  
RJM=XXX  
IE 12" IN (S) = XXX  
IE 12" OUT (N) = XXX

**B1** N, E  
FURNISH & INSTALL:  
1-48" STORM DETENTION  
POND OVERFLOW STRUCTURE  
RJM=XXX  
IE 15" OUT (S) = XXX

**B2** M, E  
FURNISH & INSTALL:  
1-TYPE 1 CB  
RJM=XXX  
IE 15" IN (N) = XXX  
IE 15" OUT (E) = XXX

**B3** M, E  
CONNECT TO EXIST  
CATCH BASIN  
RJM=XXX  
IE 15" IN (W) = XXX  
IE 12" OUT (S)=XXX

**C1** M, E  
FURNISH & INSTALL:  
1-TYPE 1 CB  
RJM=XXX  
IE 12" OUT (W) = XXX

**C2** N, E  
FURNISH & INSTALL:  
1-TYPE 1 CB  
RJM=XXX  
IE 12" IN (W) = XXX  
IE 12" IN (E) = XXX  
IE 12" OUT (N) = XXX

**C3** N, E  
FURNISH & INSTALL:  
1-TYPE 1 CB  
RJM=XXX  
IE 12" OUT (E) = XXX

**C4** M, E  
FURNISH & INSTALL:  
1-TYPE 1 CB  
RJM=XXX  
IE 12" IN (S) = XXX  
IE 12" OUT (N) = XXX

## 30% SUBMITTAL

**SWEET**

**C-3**

2 of x

**NOTICE**

0 1/2 1

IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO SCALE

\_\_\_\_\_

**MW**  
**DESIG.**  
**DAY**

**DRAW**  
**SS**  
**CHECK**

***murraysmith***

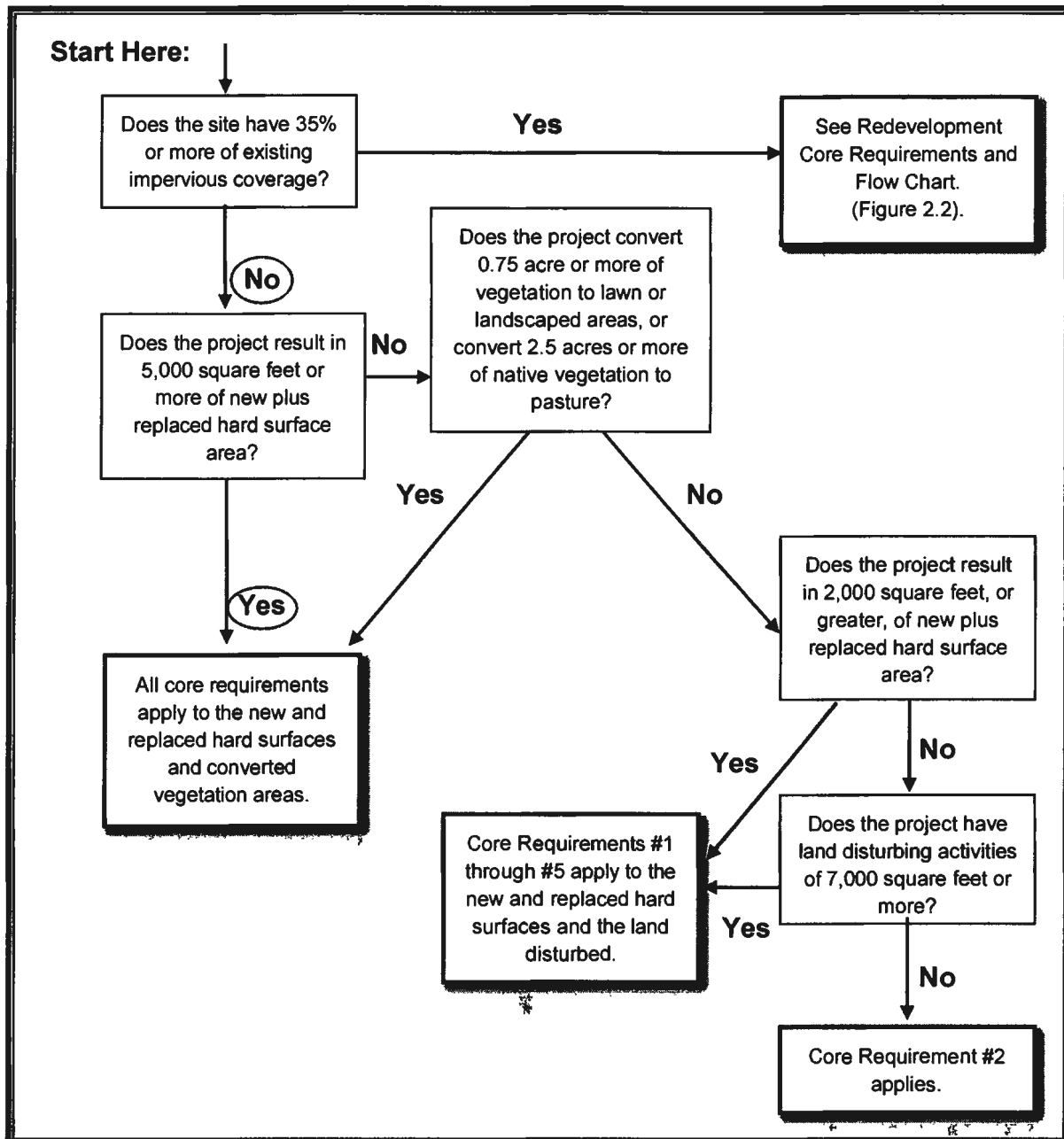


### Sleeping our rooms together

**CITY OF LACEY  
TERRY CARGIL  
RESERVOIR**

### SITE GRADING, DRAINAGE AND STORM DRAIN PIPING PLAN

|             |         |       |          |      |               |
|-------------|---------|-------|----------|------|---------------|
| PROJECT NO. | 10-2640 | SCALE | AS SHOWN | DATE | FEBRUARY 2020 |
|-------------|---------|-------|----------|------|---------------|



**Figure 2.1. Flow Chart for Determining Requirements for New Development.**

# National Flood Hazard Layer FIRMette



## APPENDIX D

### Legend

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT

|                             |  |                                                                                                                                                                   |
|-----------------------------|--|-------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| SPECIAL FLOOD HAZARD AREAS  |  | Without Base Flood Elevation (BFE)<br>Zone A, V, A99                                                                                                              |
|                             |  | With BFE or Depth Zone AE, AO, AH, VE, AR<br>Regulatory Floodway                                                                                                  |
| OTHER AREAS OF FLOOD HAZARD |  | 0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile Zone X |
|                             |  | Future Conditions 1% Annual Chance Flood Hazard Zone X                                                                                                            |
|                             |  | Area with Reduced Flood Risk due to Levee. See Notes. Zone X                                                                                                      |
|                             |  | Area with Flood Risk due to Levee Zone D                                                                                                                          |
| OTHER AREAS                 |  | NO SCREEN Area of Minimal Flood Hazard Zone X                                                                                                                     |
|                             |  | Effective LOMRs                                                                                                                                                   |
|                             |  | Area of Undetermined Flood Hazard Zone D                                                                                                                          |
| GENERAL STRUCTURES          |  | Channel, Culvert, or Storm Sewer                                                                                                                                  |
|                             |  | Levee, Dike, or Floodwall                                                                                                                                         |
| OTHER FEATURES              |  | 20.2 Cross Sections with 1% Annual Chance Water Surface Elevation                                                                                                 |
|                             |  | 17.5 Cross Sections with 1% Annual Chance Water Surface Elevation                                                                                                 |
|                             |  | 15.0 Cross Sections with 1% Annual Chance Water Surface Elevation                                                                                                 |
|                             |  | Coastal Transect                                                                                                                                                  |
|                             |  | Base Flood Elevation Line (BFE)                                                                                                                                   |
|                             |  | Limit of Study                                                                                                                                                    |
|                             |  | Jurisdiction Boundary                                                                                                                                             |
| OTHER FEATURES              |  | Coastal Transect Baseline                                                                                                                                         |
|                             |  | Profile Baseline                                                                                                                                                  |
|                             |  | Hydrographic Feature                                                                                                                                              |
| MAP PANELS                  |  | Digital Data Available                                                                                                                                            |
|                             |  | No Digital Data Available                                                                                                                                         |
|                             |  | Unmapped                                                                                                                                                          |



The pin displayed on the map is an approximate point selected by the user and does not represent an authoritative property location.

This map complies with FEMA's standards for the use of digital flood maps if it is not void as described below. The basemap shown complies with FEMA's basemap accuracy standards.

The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on 2/13/2020 at 4:46:38 PM and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

This map image is void if the one or more of the following map elements do not appear: basemap imagery, flood zone labels, legend, scale bar, map creation date, community identifiers, FIRM panel number, and FIRM effective date. Map images for unmapped and unmodernized areas cannot be used for regulatory purposes.





**WWHM2012**  
**PROJECT REPORT**

## *General Model Information*

Project Name: Detention Pond Sizing 3.19.2020  
Site Name: Terry Gargil  
Site Address: 4508 Intelco Loop SE  
City: Lacey, WA  
Report Date: 3/19/2020  
Gage: Woodland Creek  
Data Start: 1955/10/01  
Data End: 2011/09/30  
Timestep: 15 Minute  
Precip Scale: 0.889  
Version Date: 2018/03/02  
Version: 4.2.14

## *POC Thresholds*

---

Low Flow Threshold for POC1: 50 Percent of the 2 Year  
High Flow Threshold for POC1: 50 Year

---

## *Landuse Basin Data*

### *Predeveloped Land Use*

#### Existing Basin

Bypass: No

GroundWater: No

|                   |       |
|-------------------|-------|
| Pervious Land Use | acre  |
| C, Forest, Flat   | 0.591 |
| C, Forest, Mod    | 0.212 |

Pervious Total 0.803

Impervious Land Use acre

Impervious Total 0

Basin Total 0.803

#### Element Flows To:

|         |           |             |
|---------|-----------|-------------|
| Surface | Interflow | Groundwater |
|---------|-----------|-------------|

DRAFT

### *Mitigated Land Use*

#### Developed Basin

Bypass: No

GroundWater: No

Pervious Land Use      acre  
C, Pasture, Mod      0.129  
C, Pasture, Flat      0.315

Pervious Total      0.444

Impervious Land Use      acre  
ROADS FLAT      0.244  
ROOF TOPS FLAT      0.115

Impervious Total      0.359

Basin Total      0.803

#### Element Flows To:

Surface      Interflow      Groundwater  
Trapezoidal Pond 1      Trapezoidal Pond 1

*Routing Elements*  
*Predeveloped Routing*

DRAFT

## Mitigated Routing

### Trapezoidal Pond 1

Bottom Length: 52.70 ft.  
Bottom Width: 52.70 ft.  
Depth: 4 ft.  
Volume at riser head: 0.2666 acre-feet.  
Side slope 1: 3 To 1  
Side slope 2: 3 To 1  
Side slope 3: 3 To 1  
Side slope 4: 3 To 1  
Discharge Structure  
Riser Height: 3 ft.  
Riser Diameter: 18 in.  
Orifice 1 Diameter: 0.77 in. Elevation: 0 ft.  
Orifice 2 Diameter: 1.38 in. Elevation: 1.721 ft.  
Orifice 3 Diameter: 0.91 in. Elevation: 2.47708333333336 ft.  
Element Flows To:  
Outlet 1                      Outlet 2

Pond Hydraulic Table

| Stage(feet) | Area(ac.) | Volume(ac-ft.) | Discharge(cfs) | Infilt(cfs) |
|-------------|-----------|----------------|----------------|-------------|
| 0.0000      | 0.063     | 0.000          | 0.000          | 0.000       |
| 0.0444      | 0.064     | 0.002          | 0.003          | 0.000       |
| 0.0889      | 0.065     | 0.005          | 0.004          | 0.000       |
| 0.1333      | 0.065     | 0.008          | 0.005          | 0.000       |
| 0.1778      | 0.066     | 0.011          | 0.006          | 0.000       |
| 0.2222      | 0.067     | 0.014          | 0.007          | 0.000       |
| 0.2667      | 0.067     | 0.017          | 0.008          | 0.000       |
| 0.3111      | 0.068     | 0.020          | 0.009          | 0.000       |
| 0.3556      | 0.069     | 0.023          | 0.009          | 0.000       |
| 0.4000      | 0.069     | 0.026          | 0.010          | 0.000       |
| 0.4444      | 0.070     | 0.029          | 0.010          | 0.000       |
| 0.4889      | 0.071     | 0.032          | 0.011          | 0.000       |
| 0.5333      | 0.071     | 0.036          | 0.011          | 0.000       |
| 0.5778      | 0.072     | 0.039          | 0.012          | 0.000       |
| 0.6222      | 0.073     | 0.042          | 0.012          | 0.000       |
| 0.6667      | 0.073     | 0.045          | 0.013          | 0.000       |
| 0.7111      | 0.074     | 0.049          | 0.013          | 0.000       |
| 0.7556      | 0.075     | 0.052          | 0.014          | 0.000       |
| 0.8000      | 0.075     | 0.055          | 0.014          | 0.000       |
| 0.8444      | 0.076     | 0.059          | 0.014          | 0.000       |
| 0.8889      | 0.077     | 0.062          | 0.015          | 0.000       |
| 0.9333      | 0.078     | 0.066          | 0.015          | 0.000       |
| 0.9778      | 0.078     | 0.069          | 0.015          | 0.000       |
| 1.0222      | 0.079     | 0.073          | 0.016          | 0.000       |
| 1.0667      | 0.080     | 0.076          | 0.016          | 0.000       |
| 1.1111      | 0.080     | 0.080          | 0.017          | 0.000       |
| 1.1556      | 0.081     | 0.083          | 0.017          | 0.000       |
| 1.2000      | 0.082     | 0.087          | 0.017          | 0.000       |
| 1.2444      | 0.083     | 0.091          | 0.017          | 0.000       |
| 1.2889      | 0.083     | 0.094          | 0.018          | 0.000       |
| 1.3333      | 0.084     | 0.098          | 0.018          | 0.000       |
| 1.3778      | 0.085     | 0.102          | 0.018          | 0.000       |
| 1.4222      | 0.086     | 0.106          | 0.019          | 0.000       |

|        |       |       |       |       |
|--------|-------|-------|-------|-------|
| 1.4667 | 0.086 | 0.110 | 0.019 | 0.000 |
| 1.5111 | 0.087 | 0.113 | 0.019 | 0.000 |
| 1.5556 | 0.088 | 0.117 | 0.020 | 0.000 |
| 1.6000 | 0.089 | 0.121 | 0.020 | 0.000 |
| 1.6444 | 0.089 | 0.125 | 0.020 | 0.000 |
| 1.6889 | 0.090 | 0.129 | 0.020 | 0.000 |
| 1.7333 | 0.091 | 0.133 | 0.026 | 0.000 |
| 1.7778 | 0.092 | 0.137 | 0.033 | 0.000 |
| 1.8222 | 0.092 | 0.141 | 0.038 | 0.000 |
| 1.8667 | 0.093 | 0.146 | 0.041 | 0.000 |
| 1.9111 | 0.094 | 0.150 | 0.044 | 0.000 |
| 1.9556 | 0.095 | 0.154 | 0.047 | 0.000 |
| 2.0000 | 0.096 | 0.158 | 0.050 | 0.000 |
| 2.0444 | 0.096 | 0.163 | 0.052 | 0.000 |
| 2.0889 | 0.097 | 0.167 | 0.054 | 0.000 |
| 2.1333 | 0.098 | 0.171 | 0.056 | 0.000 |
| 2.1778 | 0.099 | 0.176 | 0.058 | 0.000 |
| 2.2222 | 0.100 | 0.180 | 0.060 | 0.000 |
| 2.2667 | 0.100 | 0.185 | 0.062 | 0.000 |
| 2.3111 | 0.101 | 0.189 | 0.064 | 0.000 |
| 2.3556 | 0.102 | 0.194 | 0.065 | 0.000 |
| 2.4000 | 0.103 | 0.198 | 0.067 | 0.000 |
| 2.4444 | 0.104 | 0.203 | 0.069 | 0.000 |
| 2.4889 | 0.105 | 0.207 | 0.073 | 0.000 |
| 2.5333 | 0.105 | 0.212 | 0.077 | 0.000 |
| 2.5778 | 0.106 | 0.217 | 0.080 | 0.000 |
| 2.6222 | 0.107 | 0.222 | 0.083 | 0.000 |
| 2.6667 | 0.108 | 0.226 | 0.086 | 0.000 |
| 2.7111 | 0.109 | 0.231 | 0.088 | 0.000 |
| 2.7556 | 0.110 | 0.236 | 0.091 | 0.000 |
| 2.8000 | 0.110 | 0.241 | 0.093 | 0.000 |
| 2.8444 | 0.111 | 0.246 | 0.095 | 0.000 |
| 2.8889 | 0.112 | 0.251 | 0.097 | 0.000 |
| 2.9333 | 0.113 | 0.256 | 0.099 | 0.000 |
| 2.9778 | 0.114 | 0.261 | 0.101 | 0.000 |
| 3.0222 | 0.115 | 0.266 | 0.156 | 0.000 |
| 3.0667 | 0.116 | 0.271 | 0.379 | 0.000 |
| 3.1111 | 0.116 | 0.276 | 0.695 | 0.000 |
| 3.1556 | 0.117 | 0.282 | 1.079 | 0.000 |
| 3.2000 | 0.118 | 0.287 | 1.515 | 0.000 |
| 3.2444 | 0.119 | 0.292 | 1.989 | 0.000 |
| 3.2889 | 0.120 | 0.298 | 2.488 | 0.000 |
| 3.3333 | 0.121 | 0.303 | 2.998 | 0.000 |
| 3.3778 | 0.122 | 0.308 | 3.503 | 0.000 |
| 3.4222 | 0.123 | 0.314 | 3.990 | 0.000 |
| 3.4667 | 0.124 | 0.319 | 4.446 | 0.000 |
| 3.5111 | 0.124 | 0.325 | 4.859 | 0.000 |
| 3.5556 | 0.125 | 0.330 | 5.221 | 0.000 |
| 3.6000 | 0.126 | 0.336 | 5.526 | 0.000 |
| 3.6444 | 0.127 | 0.342 | 5.776 | 0.000 |
| 3.6889 | 0.128 | 0.347 | 5.976 | 0.000 |
| 3.7333 | 0.129 | 0.353 | 6.143 | 0.000 |
| 3.7778 | 0.130 | 0.359 | 6.380 | 0.000 |
| 3.8222 | 0.131 | 0.365 | 6.558 | 0.000 |
| 3.8667 | 0.132 | 0.371 | 6.731 | 0.000 |
| 3.9111 | 0.133 | 0.376 | 6.899 | 0.000 |
| 3.9556 | 0.134 | 0.382 | 7.064 | 0.000 |
| 4.0000 | 0.135 | 0.388 | 7.224 | 0.000 |

4.0444

0.136

0.394

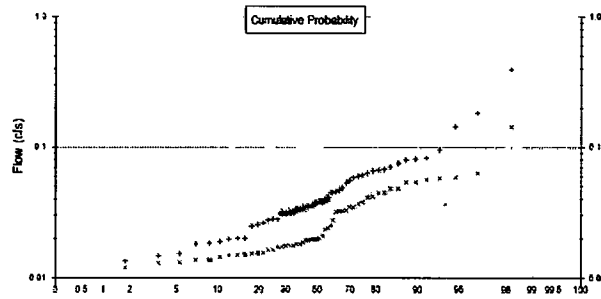
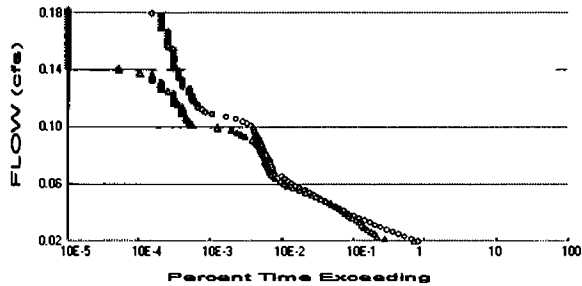
7.381

0.000

DRAFT

# Analysis Results

## POC 1



+ Predeveloped x Mitigated

### Predeveloped Landuse Totals for POC #1

Total Pervious Area: 0.803

Total Impervious Area: 0

### Mitigated Landuse Totals for POC #1

Total Pervious Area: 0.444

Total Impervious Area: 0.359

Flow Frequency Method: Log Pearson Type III 17B

### Flow Frequency Return Periods for Predeveloped. POC #1

| Return Period | Flow(cfs) |
|---------------|-----------|
| 2 year        | 0.038161  |
| 5 year        | 0.069283  |
| 10 year       | 0.097141  |
| 25 year       | 0.142154  |
| 50 year       | 0.18387   |
| 100 year      | 0.233548  |

### Flow Frequency Return Periods for Mitigated. POC #1

| Return Period | Flow(cfs) |
|---------------|-----------|
| 2 year        | 0.023722  |
| 5 year        | 0.03863   |
| 10 year       | 0.051196  |
| 25 year       | 0.070588  |
| 50 year       | 0.087885  |
| 100 year      | 0.107891  |

### Annual Peaks

#### Annual Peaks for Predeveloped and Mitigated. POC #1

| Year | Predeveloped | Mitigated |
|------|--------------|-----------|
| 1956 | 0.041        | 0.028     |
| 1957 | 0.070        | 0.035     |
| 1958 | 0.019        | 0.014     |
| 1959 | 0.031        | 0.020     |
| 1960 | 0.047        | 0.059     |
| 1961 | 0.035        | 0.019     |
| 1962 | 0.013        | 0.014     |
| 1963 | 0.083        | 0.038     |
| 1964 | 0.063        | 0.020     |
| 1965 | 0.031        | 0.017     |

|      |       |       |
|------|-------|-------|
| 1966 | 0.020 | 0.015 |
| 1967 | 0.038 | 0.019 |
| 1968 | 0.028 | 0.017 |
| 1969 | 0.018 | 0.015 |
| 1970 | 0.032 | 0.020 |
| 1971 | 0.076 | 0.037 |
| 1972 | 0.060 | 0.054 |
| 1973 | 0.035 | 0.042 |
| 1974 | 0.035 | 0.020 |
| 1975 | 0.096 | 0.015 |
| 1976 | 0.045 | 0.045 |
| 1977 | 0.015 | 0.012 |
| 1978 | 0.065 | 0.032 |
| 1979 | 0.053 | 0.016 |
| 1980 | 0.034 | 0.032 |
| 1981 | 0.061 | 0.025 |
| 1982 | 0.039 | 0.021 |
| 1983 | 0.056 | 0.020 |
| 1984 | 0.037 | 0.018 |
| 1985 | 0.018 | 0.015 |
| 1986 | 0.080 | 0.045 |
| 1987 | 0.049 | 0.054 |
| 1988 | 0.025 | 0.017 |
| 1989 | 0.026 | 0.015 |
| 1990 | 0.068 | 0.058 |
| 1991 | 0.144 | 0.144 |
| 1992 | 0.391 | 0.048 |
| 1993 | 0.045 | 0.018 |
| 1994 | 0.020 | 0.013 |
| 1995 | 0.046 | 0.041 |
| 1996 | 0.066 | 0.063 |
| 1997 | 0.183 | 0.024 |
| 1998 | 0.082 | 0.017 |
| 1999 | 0.036 | 0.048 |
| 2000 | 0.020 | 0.016 |
| 2001 | 0.006 | 0.011 |
| 2002 | 0.038 | 0.033 |
| 2003 | 0.015 | 0.013 |
| 2004 | 0.028 | 0.023 |
| 2005 | 0.025 | 0.015 |
| 2006 | 0.033 | 0.018 |
| 2007 | 0.028 | 0.035 |
| 2008 | 0.039 | 0.032 |
| 2009 | 0.059 | 0.056 |
| 2010 | 0.033 | 0.014 |
| 2011 | 0.031 | 0.019 |

### Ranked Annual Peaks

Ranked Annual Peaks for Predeveloped and Mitigated. POC #1

| Rank | Predeveloped | Mitigated |
|------|--------------|-----------|
| 1    | 0.3913       | 0.1439    |
| 2    | 0.1830       | 0.0631    |
| 3    | 0.1438       | 0.0588    |
| 4    | 0.0957       | 0.0576    |
| 5    | 0.0825       | 0.0564    |
| 6    | 0.0819       | 0.0539    |
| 7    | 0.0801       | 0.0537    |
| 8    | 0.0759       | 0.0484    |

|    |        |        |
|----|--------|--------|
| 9  | 0.0704 | 0.0481 |
| 10 | 0.0676 | 0.0451 |
| 11 | 0.0665 | 0.0445 |
| 12 | 0.0654 | 0.0416 |
| 13 | 0.0627 | 0.0409 |
| 14 | 0.0611 | 0.0380 |
| 15 | 0.0596 | 0.0369 |
| 16 | 0.0589 | 0.0349 |
| 17 | 0.0559 | 0.0348 |
| 18 | 0.0534 | 0.0328 |
| 19 | 0.0490 | 0.0325 |
| 20 | 0.0468 | 0.0324 |
| 21 | 0.0458 | 0.0319 |
| 22 | 0.0451 | 0.0276 |
| 23 | 0.0448 | 0.0250 |
| 24 | 0.0414 | 0.0241 |
| 25 | 0.0390 | 0.0235 |
| 26 | 0.0386 | 0.0209 |
| 27 | 0.0383 | 0.0201 |
| 28 | 0.0377 | 0.0198 |
| 29 | 0.0374 | 0.0198 |
| 30 | 0.0355 | 0.0198 |
| 31 | 0.0351 | 0.0196 |
| 32 | 0.0350 | 0.0195 |
| 33 | 0.0350 | 0.0194 |
| 34 | 0.0342 | 0.0186 |
| 35 | 0.0334 | 0.0182 |
| 36 | 0.0331 | 0.0182 |
| 37 | 0.0317 | 0.0175 |
| 38 | 0.0314 | 0.0175 |
| 39 | 0.0311 | 0.0175 |
| 40 | 0.0310 | 0.0173 |
| 41 | 0.0281 | 0.0170 |
| 42 | 0.0280 | 0.0165 |
| 43 | 0.0279 | 0.0163 |
| 44 | 0.0263 | 0.0155 |
| 45 | 0.0254 | 0.0154 |
| 46 | 0.0247 | 0.0152 |
| 47 | 0.0200 | 0.0150 |
| 48 | 0.0199 | 0.0149 |
| 49 | 0.0198 | 0.0148 |
| 50 | 0.0190 | 0.0144 |
| 51 | 0.0184 | 0.0137 |
| 52 | 0.0181 | 0.0137 |
| 53 | 0.0153 | 0.0132 |
| 54 | 0.0147 | 0.0129 |
| 55 | 0.0134 | 0.0121 |
| 56 | 0.0064 | 0.0106 |

Duration Flows  
The Facility PASSED

| Flow(cfs) | Predev | Mit   | Percentage | Pass/Fail |
|-----------|--------|-------|------------|-----------|
| 0.0191    | 16184  | 14383 | 88         | Pass      |
| 0.0207    | 12993  | 5384  | 41         | Pass      |
| 0.0224    | 10468  | 4188  | 40         | Pass      |
| 0.0241    | 8510   | 3817  | 44         | Pass      |
| 0.0257    | 6992   | 3470  | 49         | Pass      |
| 0.0274    | 5726   | 3085  | 53         | Pass      |
| 0.0291    | 4718   | 2757  | 58         | Pass      |
| 0.0307    | 3915   | 2539  | 64         | Pass      |
| 0.0324    | 3287   | 2325  | 70         | Pass      |
| 0.0341    | 2777   | 2121  | 76         | Pass      |
| 0.0357    | 2317   | 1857  | 80         | Pass      |
| 0.0374    | 1968   | 1657  | 84         | Pass      |
| 0.0391    | 1678   | 1499  | 89         | Pass      |
| 0.0407    | 1422   | 1344  | 94         | Pass      |
| 0.0424    | 1218   | 1223  | 100        | Pass      |
| 0.0440    | 1046   | 1114  | 106        | Pass      |
| 0.0457    | 886    | 951   | 107        | Pass      |
| 0.0474    | 772    | 799   | 103        | Pass      |
| 0.0490    | 676    | 671   | 99         | Pass      |
| 0.0507    | 611    | 584   | 95         | Pass      |
| 0.0524    | 546    | 513   | 93         | Pass      |
| 0.0540    | 479    | 422   | 88         | Pass      |
| 0.0557    | 412    | 350   | 84         | Pass      |
| 0.0574    | 346    | 280   | 80         | Pass      |
| 0.0590    | 297    | 233   | 78         | Pass      |
| 0.0607    | 267    | 214   | 80         | Pass      |
| 0.0624    | 236    | 190   | 80         | Pass      |
| 0.0640    | 212    | 158   | 74         | Pass      |
| 0.0657    | 193    | 149   | 77         | Pass      |
| 0.0674    | 156    | 140   | 89         | Pass      |
| 0.0690    | 150    | 132   | 88         | Pass      |
| 0.0707    | 146    | 129   | 88         | Pass      |
| 0.0723    | 142    | 125   | 88         | Pass      |
| 0.0740    | 139    | 122   | 87         | Pass      |
| 0.0757    | 136    | 119   | 87         | Pass      |
| 0.0773    | 132    | 117   | 88         | Pass      |
| 0.0790    | 126    | 113   | 89         | Pass      |
| 0.0807    | 121    | 110   | 90         | Pass      |
| 0.0823    | 115    | 106   | 92         | Pass      |
| 0.0840    | 111    | 102   | 91         | Pass      |
| 0.0857    | 108    | 98    | 90         | Pass      |
| 0.0873    | 104    | 94    | 90         | Pass      |
| 0.0890    | 102    | 89    | 87         | Pass      |
| 0.0907    | 98     | 83    | 84         | Pass      |
| 0.0923    | 96     | 77    | 80         | Pass      |
| 0.0940    | 90     | 61    | 67         | Pass      |
| 0.0956    | 87     | 54    | 62         | Pass      |
| 0.0973    | 83     | 47    | 56         | Pass      |
| 0.0990    | 81     | 39    | 48         | Pass      |
| 0.1006    | 78     | 25    | 32         | Pass      |
| 0.1023    | 73     | 11    | 15         | Pass      |
| 0.1040    | 64     | 10    | 15         | Pass      |
| 0.1056    | 56     | 10    | 17         | Pass      |

|        |    |   |    |      |
|--------|----|---|----|------|
| 0.1073 | 45 | 9 | 20 | Pass |
| 0.1090 | 33 | 9 | 27 | Pass |
| 0.1106 | 21 | 8 | 38 | Pass |
| 0.1123 | 17 | 8 | 47 | Pass |
| 0.1140 | 15 | 8 | 53 | Pass |
| 0.1156 | 13 | 8 | 61 | Pass |
| 0.1173 | 13 | 7 | 53 | Pass |
| 0.1190 | 12 | 6 | 50 | Pass |
| 0.1206 | 11 | 6 | 54 | Pass |
| 0.1223 | 11 | 6 | 54 | Pass |
| 0.1239 | 11 | 6 | 54 | Pass |
| 0.1256 | 10 | 6 | 60 | Pass |
| 0.1273 | 10 | 5 | 50 | Pass |
| 0.1289 | 10 | 4 | 40 | Pass |
| 0.1306 | 8  | 4 | 50 | Pass |
| 0.1323 | 8  | 4 | 50 | Pass |
| 0.1339 | 8  | 4 | 50 | Pass |
| 0.1356 | 8  | 3 | 37 | Pass |
| 0.1373 | 7  | 3 | 42 | Pass |
| 0.1389 | 7  | 3 | 42 | Pass |
| 0.1406 | 7  | 2 | 28 | Pass |
| 0.1423 | 7  | 1 | 14 | Pass |
| 0.1439 | 6  | 1 | 16 | Pass |
| 0.1456 | 6  | 0 | 0  | Pass |
| 0.1473 | 6  | 0 | 0  | Pass |
| 0.1489 | 6  | 0 | 0  | Pass |
| 0.1506 | 6  | 0 | 0  | Pass |
| 0.1522 | 6  | 0 | 0  | Pass |
| 0.1539 | 6  | 0 | 0  | Pass |
| 0.1556 | 6  | 0 | 0  | Pass |
| 0.1572 | 6  | 0 | 0  | Pass |
| 0.1589 | 5  | 0 | 0  | Pass |
| 0.1606 | 5  | 0 | 0  | Pass |
| 0.1622 | 5  | 0 | 0  | Pass |
| 0.1639 | 5  | 0 | 0  | Pass |
| 0.1656 | 5  | 0 | 0  | Pass |
| 0.1672 | 5  | 0 | 0  | Pass |
| 0.1689 | 5  | 0 | 0  | Pass |
| 0.1706 | 5  | 0 | 0  | Pass |
| 0.1722 | 4  | 0 | 0  | Pass |
| 0.1739 | 4  | 0 | 0  | Pass |
| 0.1755 | 4  | 0 | 0  | Pass |
| 0.1772 | 4  | 0 | 0  | Pass |
| 0.1789 | 4  | 0 | 0  | Pass |
| 0.1805 | 4  | 0 | 0  | Pass |
| 0.1822 | 4  | 0 | 0  | Pass |
| 0.1839 | 3  | 0 | 0  | Pass |

## Water Quality

### Water Quality BMP Flow and Volume for POC #1

On-line facility volume: 0 acre-feet

On-line facility target flow: 0 cfs.

Adjusted for 15 min: 0 cfs.

Off-line facility target flow: 0 cfs.

Adjusted for 15 min: 0 cfs.

DRAFT

## LID Report

| LID Technique                                          | Used for Treatment ?     | Total Volume Needs Treatment (ac-ft) | Volume Through Facility (ac-ft) | Infiltration Volume (ac-ft) | Cumulative Volume Infiltration Credit | Percent Volume Infiltrated | Water Quality | Percent Water Quality Treated | Comment                           |
|--------------------------------------------------------|--------------------------|--------------------------------------|---------------------------------|-----------------------------|---------------------------------------|----------------------------|---------------|-------------------------------|-----------------------------------|
| Trapezoidal Pond 1 POC                                 | <input type="checkbox"/> | 95.07                                |                                 |                             | <input type="checkbox"/>              | 0.00                       |               |                               |                                   |
| Total Volume Infiltrated                               |                          | 95.07                                | 0.00                            | 0.00                        |                                       | 0.00                       | 0.00          | 0%                            | No Treat Credit                   |
| Compliance with LID Standard 8% of 2-yr to 50% of 2-yr |                          |                                      |                                 |                             |                                       |                            |               |                               | Duration Analysis Result = Failed |
|                                                        |                          |                                      |                                 |                             |                                       |                            |               |                               |                                   |

DRAFT

## *Model Default Modifications*

Total of 0 changes have been made.

### *PERLND Changes*

No PERLND changes have been made.

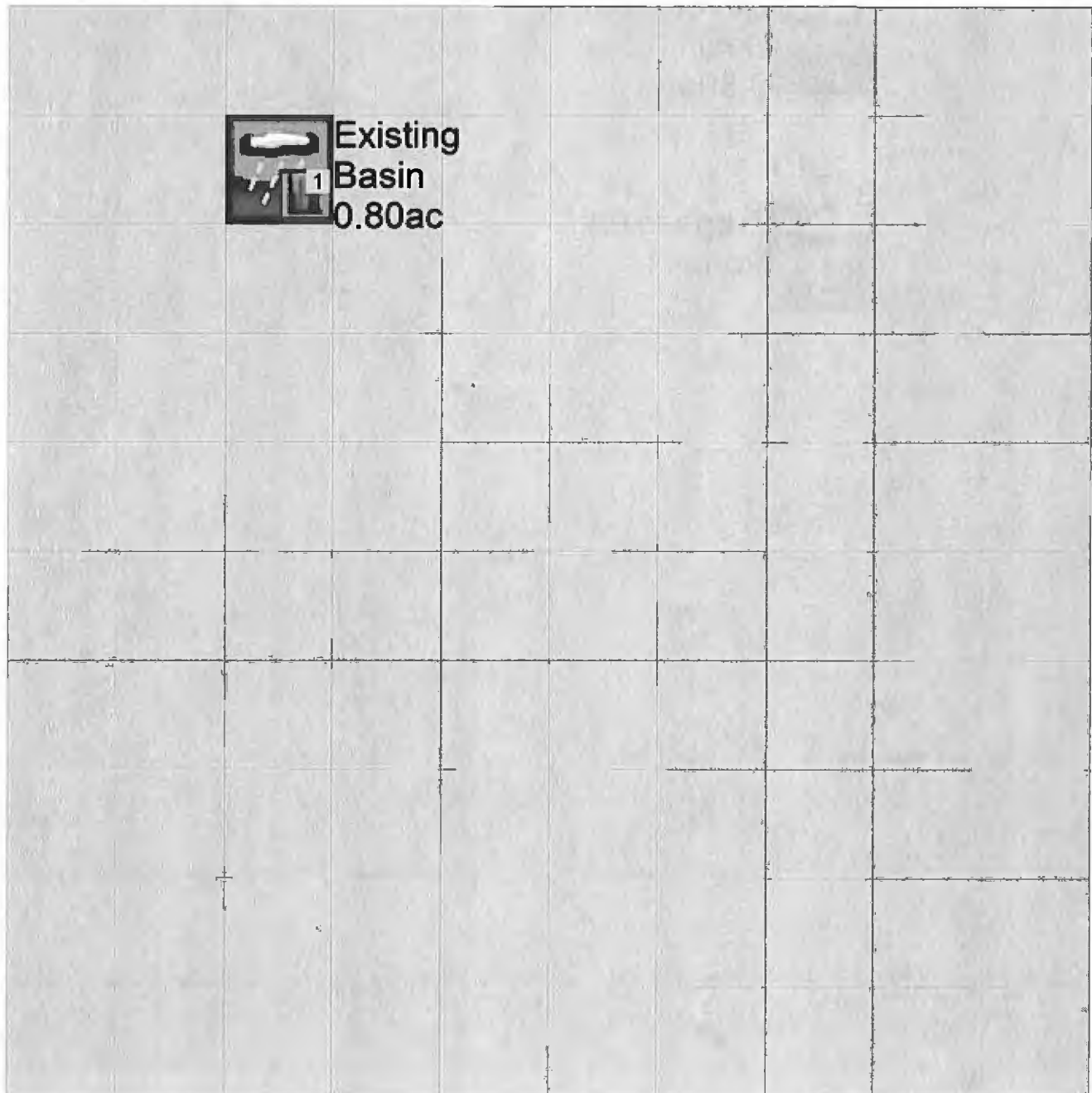
### *IMPLND Changes*

No IMPLND changes have been made.

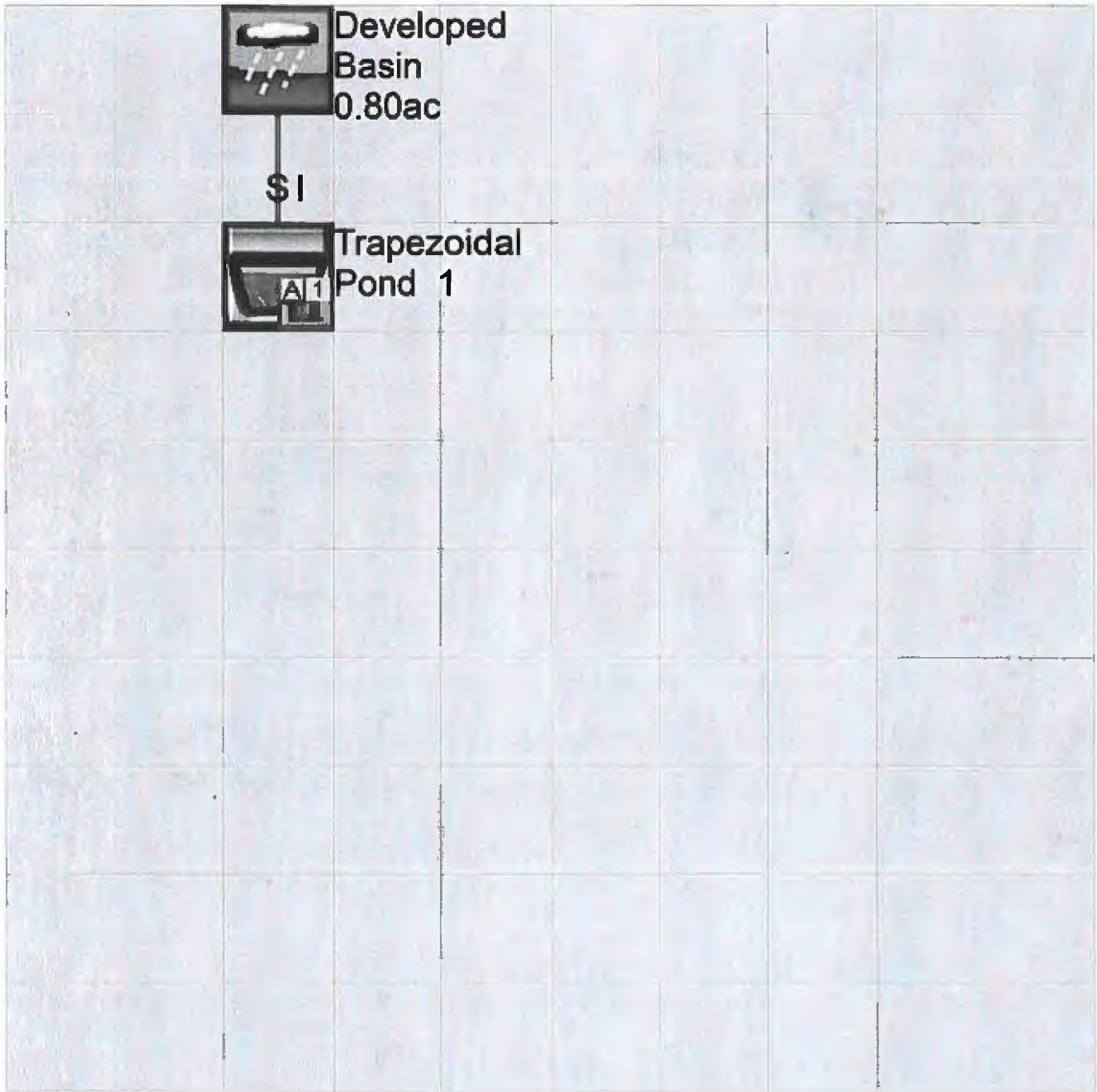
DRAFT

## Appendix

### Predeveloped Schematic



## Mitigated Schematic



## Predeveloped UCI File

RUN

### GLOBAL

WWHM4 model simulation  
START 1955 10 01 END 2011 09 30  
RUN INTERP OUTPUT LEVEL 3 0  
RESUME 0 RUN 1 UNIT SYSTEM 1  
END GLOBAL

### FILES

<File> <Un#> <-----File Name----->\*\*\*  
<-ID-> \*\*\*  
WDM 26 Detention Pond Sizing 3.19.2020.wdm  
MESSU 25 PreDetention Pond Sizing 3.19.2020.MES  
27 PreDetention Pond Sizing 3.19.2020.L61  
28 PreDetention Pond Sizing 3.19.2020.L62  
30 POCDetention Pond Sizing 3.19.20201.dat  
END FILES

### OPN SEQUENCE

INGRP INDELT 00:15  
PERLND 10  
PERLND 11  
COPY 501  
DISPLY 1  
END INGRP

### END OPN SEQUENCE

### DISPLY

DISPLY-INFO1  
# - #<-----Title----->\*\*\*TRAN PIVL DIG1 FIL1 PYR DIG2 FIL2 YRND  
1 Existing Basin MAX 1 2 30 9  
END DISPLY-INFO1

### END DISPLY

### COPY

TIMESERIES  
# - # NPT NMN \*\*\*  
1 1 1  
501 1 1  
END TIMESERIES

### END COPY

### GENER

OPCODE  
# # OPCODE \*\*\*  
END OPCODE  
PARM  
# # K \*\*\*  
END PARM

### END GENER

### PERLND

GEN-INFO  
<PLS ><-----Name----->NBLKS Unit-systems Printer \*\*\*  
# - # User t-series Engl Metr \*\*\*  
in out \*\*\*  
10 C, Forest, Flat 1 1 1 1 27 0  
11 C, Forest, Mod 1 1 1 1 27 0  
END GEN-INFO  
\*\*\* Section PWATER\*\*\*

### ACTIVITY

<PLS > \*\*\*\*\* Active Sections \*\*\*\*\*  
# - # ATMP SNOW PWAT SED PST PWG PQAL MSTL PEST NITR PHOS TRAC \*\*\*  
10 0 0 1 0 0 0 0 0 0 0 0 0  
11 0 0 1 0 0 0 0 0 0 0 0 0  
END ACTIVITY

### PRINT-INFO

<PLS > \*\*\*\*\* Print-flags \*\*\*\*\* PIVL PYR  
# - # ATMP SNOW PWAT SED PST PWG PQAL MSTL PEST NITR PHOS TRAC \*\*\*\*\*

|    |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|----|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 10 | 0 | 0 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 9 |
| 11 | 0 | 0 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 9 |

END PRINT-INFO

PWAT-PARM1  
 <PLS > PWATER variable monthly parameter value flags \*\*\*  
 # - # CSNO RTOP UZFG VCS VUZ VNN VIFW VIRC VLE INFC HWT \*\*\*  
 10 0 0 0 0 0 0 0 0 0 0 0  
 11 0 0 0 0 0 0 0 0 0 0 0  
 END PWAT-PARM1

PWAT-PARM2  
 <PLS > PWATER input info: Part 2 \*\*\*  
 # - # \*\*\*FOREST LZSN INFILT LSUR SLSUR KVARV AGWRC  
 10 0 4.5 0.08 400 0.05 0.5 0.996  
 11 0 4.5 0.08 400 0.1 0.5 0.996  
 END PWAT-PARM2

PWAT-PARM3  
 <PLS > PWATER input info: Part 3 \*\*\*  
 # - # \*\*\*PETMAX PETMIN INFEXP INFILD DEEPFR BASETP AGWETP  
 10 0 0 2 2 0 0 0  
 11 0 0 2 2 0 0 0  
 END PWAT-PARM3

PWAT-PARM4  
 <PLS > PWATER input info: Part 4 \*\*\*  
 # - # CEPSC UZSN NSUR INTFW IRC LZETP \*\*\*  
 10 0.2 0.5 0.35 6 0.5 0.7  
 11 0.2 0.5 0.35 6 0.5 0.7  
 END PWAT-PARM4

PWAT-STATE1  
 <PLS > \*\*\* Initial conditions at start of simulation  
 ran from 1990 to end of 1992 (pat 1-11-95) RUN 21 \*\*\*  
 # - # \*\*\* CEPS SURS UZS IFWS LZS AGWS GWVS  
 10 0 0 0 0 2.5 1 0  
 11 0 0 0 0 2.5 1 0  
 END PWAT-STATE1

END PERLND

IMPLND  
 GEN-INFO  
 <PLS ><-----Name-----> Unit-systems Printer \*\*\*  
 # - # User t-series Engl Metr \*\*\*  
 in out \*\*\*  
 END GEN-INFO  
 \*\*\* Section IWATER\*\*\*

ACTIVITY  
 <PLS > \*\*\*\*\* Active Sections \*\*\*\*\*  
 # - # ATMP SNOW IWAT SLD IWG IQAL \*\*\*  
 END ACTIVITY

PRINT-INFO  
 <ILS > \*\*\*\*\* Print-flags \*\*\*\*\* PIVL PYR  
 # - # ATMP SNOW IWAT SLD IWG IQAL \*\*\*\*\*  
 END PRINT-INFO

IWAT-PARM1  
 <PLS > IWATER variable monthly parameter value flags \*\*\*  
 # - # CSNO RTOP VRS VNN RTLI \*\*\*  
 END IWAT-PARM1

IWAT-PARM2  
 <PLS > IWATER input info: Part 2 \*\*\*  
 # - # \*\*\* LSUR SLSUR NSUR RETSC  
 END IWAT-PARM2

IWAT-PARM3

```

<PLS >          IWATER input info: Part 3          ***
# - # ***PETMAX      PETMIN
END IWAT-PARM3

IWAT-STATE1
<PLS > *** Initial conditions at start of simulation
# - # *** RETS      SURS
END IWAT-STATE1

END IMPLND

SCHEMATIC
<-Source->          <--Area-->          <-Target->          MBLK          ***
<Name> #          <-factor->          <Name> #          Tbl#          ***
Existing Basin***
PERLND 10          0.591          COPY 501          12
PERLND 10          0.591          COPY 501          13
PERLND 11          0.212          COPY 501          12
PERLND 11          0.212          COPY 501          13

*****Routing*****
END SCHEMATIC

NETWORK
<-Volume-> <-Grp> <-Member-><--Mult-->Tran <-Target vols> <-Grp> <-Member-> ***
<Name> #          <Name> # #<-factor->strg <Name> #          #          <Name> # #          ***
COPY 501 OUTPUT MEAN 1 1 48.4          DISPLY 1          INPUT TIMSER 1

<-Volume-> <-Grp> <-Member-><--Mult-->Tran <-Target vols> <-Grp> <-Member-> ***
<Name> #          <Name> # #<-factor->strg <Name> #          #          <Name> # #          ***
END NETWORK

RCHRES
GEN-INFO
RCHRES          Name          Nexits          Unit Systems          Printer          ***
# - #<-----><-----> User T-series Engl Metr LKFG          ***
in out          ***
END GEN-INFO
*** Section RCHRES***

ACTIVITY
<PLS > ***** Active Sections *****
# - # HYFG ADFG CNFG HTFG SDFG GQFG OXFG NUFG PKFG PHFG ***
END ACTIVITY

PRINT-INFO
<PLS > ***** Print-flags ***** PIVL PYR
# - # HYDR ADCA CONS HEAT SED GQL OXRX NUTR PLNK PHCB PIVL PYR *****
END PRINT-INFO

HYDR-PARM1
RCHRES Flags for each HYDR Section          ***
# - # VC A1 A2 A3 ODFVFG for each *** ODGTFG for each FUNCT for each
FG FG FG FG possible exit *** possible exit possible exit
* * * * * * * * * * * * * * * *
END HYDR-PARM1

HYDR-PARM2
# - # FTABNO          LEN          DELTH          STCOR          KS          DB50          ***
<-----><-----><-----><-----><-----><----->          ***
END HYDR-PARM2
HYDR-INIT
RCHRES Initial conditions for each HYDR section          ***
# - # *** VOL          Initial value of COLIND          Initial value of OUTDGT
*** ac-ft          for each possible exit          for each possible exit
<-----><-----><-----><-----><-----><----->          ***
END HYDR-INIT
END RCHRES

```

SPEC-ACTIONS  
 END SPEC-ACTIONS  
 FTABLES  
 END FTABLES

EXT SOURCES

| <-Volume-> | <Member> | SsysSgap<--Mult--> | Tran | <-Target           | vols> | <-Grp> | <-Member-> | *** |
|------------|----------|--------------------|------|--------------------|-------|--------|------------|-----|
| <Name>     | #        | <Name>             | #    | tem strg<-factor-> | strg  | <Name> | #          | #   |
| WDM        | 2        | PREC               | ENGL | 0.889              |       | PERLND | 1          | 999 |
| WDM        | 2        | PREC               | ENGL | 0.889              |       | IMPLND | 1          | 999 |
| WDM        | 1        | EVAP               | ENGL | 0.76               |       | PERLND | 1          | 999 |
| WDM        | 1        | EVAP               | ENGL | 0.76               |       | IMPLND | 1          | 999 |

END EXT SOURCES

EXT TARGETS

| <-Volume-> | <-Grp> | <-Member-> | <--Mult--> | Tran        | <-Volume-> | <Member> | Tsys | Tgap   | Amd      | ***     |
|------------|--------|------------|------------|-------------|------------|----------|------|--------|----------|---------|
| <Name>     | #      | <Name>     | #          | #<-factor-> | strg       | <Name>   | #    | <Name> | tem strg | strg*** |
| COPY       | 501    | OUTPUT     | MEAN       | 1           | 1          | 48.4     | WDM  | 501    | FLOW     | ENGL    |
|            |        |            |            |             |            |          |      |        |          | REPL    |

END EXT TARGETS

MASS-LINK

| <Volume>      | <-Grp> | <-Member-> | <--Mult--> | <Target>    | <-Grp> | <-Member-> | ***  |
|---------------|--------|------------|------------|-------------|--------|------------|------|
| <Name>        | #      | <Name>     | #          | #<-factor-> | <Name> | #          | #    |
| MASS-LINK     |        | 12         |            |             |        |            |      |
| PERLND        | PWATER | SURO       |            | 0.083333    | COPY   | INPUT      | MEAN |
| END MASS-LINK |        | 12         |            |             |        |            |      |
| MASS-LINK     |        | 13         |            |             |        |            |      |
| PERLND        | PWATER | IFWO       |            | 0.083333    | COPY   | INPUT      | MEAN |
| END MASS-LINK |        | 13         |            |             |        |            |      |

END MASS-LINK

END RUN

## Mitigated UCI File

RUN

GLOBAL

WWM4 model simulation

START 1955 10 01 END 2011 09 30

RUN INTERP OUTPUT LEVEL 3 0

RESUME 0 RUN 1 UNIT SYSTEM 1

END GLOBAL

FILES

<File> <Un#> <-----File Name----->\*\*\*

<-ID-> \*\*\*

WDM 26 Detention Pond Sizing 3.19.2020.wdm  
MESSU 25 MitDetention Pond Sizing 3.19.2020.MES  
27 MitDetention Pond Sizing 3.19.2020.L61  
28 MitDetention Pond Sizing 3.19.2020.L62  
30 POCDetention Pond Sizing 3.19.20201.dat

END FILES

OPN SEQUENCE

INGRP INDELT 00:15

PERLND 14

PERLND 13

IMPLND 1

IMPLND 4

RCHRES 1

COPY 1

COPY 501

DISPLY 1

END INGRP

END OPN SEQUENCE

DISPLY

DISPLY-INFO1

# - #<-----Title----->\*\*\*TRAN PIVL DIG1 FIL1 PYR DIG2 FIL2 YRND  
1 Trapezoidal Pond 1 MAX 1 2 30 9

END DISPLY-INFO1

END DISPLY

COPY

TIMESERIES

# - # NPT NMN \*\*\*

1 1 1

501 1 1

END TIMESERIES

END COPY

GENER

OPCODE

# # OPCD \*\*\*

END OPCODE

PARM

# # K \*\*\*

END PARM

END GENER

PERLND

GEN-INFO

<PLS ><-----Name----->NBLKS Unit-systems Printer \*\*\*  
# - # User t-series Engr Metr \*\*\*  
in out \*\*\*

14 C, Pasture, Mod 1 1 1 1 27 0

13 C, Pasture, Flat 1 1 1 1 27 0

END GEN-INFO

\*\*\* Section PWATER\*\*\*

ACTIVITY

<PLS > \*\*\*\*\* Active Sections \*\*\*\*\*

# - # ATMP SNOW PWAT SED PST PWG PQAL MSTL PEST NITR PHOS TRAC \*\*\*

14 0 0 1 0 0 0 0 0 0 0 0 0

13 0 0 1 0 0 0 0 0 0 0 0 0

END ACTIVITY

```

PRINT-INFO
<PLS > ***** Print-flags ***** PIVL  PYR
# - # ATMP SNOW PWAT SED PST PWG PQAL MSTL PEST NITR PHOS TRAC *****
14      0      0      4      0      0      0      0      0      0      0      0      0      1      9
13      0      0      4      0      0      0      0      0      0      0      0      0      1      9
END PRINT-INFO

PWAT-PARM1
<PLS > PWATER variable monthly parameter value flags ***
# - # CSNO RTOP UZFG VCS VUZ VNN VIFW VIRC VLE INFC HWT ***
14      0      0      0      0      0      0      0      0      0      0      0
13      0      0      0      0      0      0      0      0      0      0      0
END PWAT-PARM1

PWAT-PARM2
<PLS > PWATER input info: Part 2 ***
# - # ***FOREST LZSN INFILT LSUR SLSUR KVARY AGWRC
14      0      4.5      0.06      400      0.1      0.5      0.996
13      0      4.5      0.06      400      0.05      0.5      0.996
END PWAT-PARM2

PWAT-PARM3
<PLS > PWATER input info: Part 3 ***
# - # ***PETMAX PETMIN INFEXP INFILD DEEPFR BASETP AGWETP
14      0      0      2      2      0      0      0
13      0      0      2      2      0      0      0
END PWAT-PARM3
PWAT-PARM4
<PLS > PWATER input info: Part 4 ***
# - # CEPSC UZSN NSUR INTFW IRC LZETP ***
14      0.15      0.4      0.3      6      0.5      0.4
13      0.15      0.4      0.3      6      0.5      0.4
END PWAT-PARM4

PWAT-STATE1
<PLS > *** Initial conditions at start of simulation
ran from 1990 to end of 1992 (pat 1-11-95) RUN 21 ***
# - # *** CEPS SURS UZS IFWS LZS AGWS GWVS
14      0      0      0      0      2.5      1      0
13      0      0      0      0      2.5      1      0
END PWAT-STATE1

END PERLND

IMPLND
GEN-INFO
<PLS > <-----Name-----> Unit-systems Printer ***
# - # User t-series Engr Metr ***
in out ***
1      ROADS/FLAT      1      1      1      27      0
4      ROOF TOPS/FLAT      1      1      1      27      0
END GEN-INFO
*** Section IWATER***

ACTIVITY
<PLS > ***** Active Sections *****
# - # ATMP SNOW IWAT SLD IWG IQAL ***
1      0      0      1      0      0      0
4      0      0      1      0      0      0
END ACTIVITY

PRINT-INFO
<ILS > ***** Print-flags ***** PIVL  PYR
# - # ATMP SNOW IWAT SLD IWG IQAL *****
1      0      0      4      0      0      0      1      9
4      0      0      4      0      0      0      1      9
END PRINT-INFO

IWAT-PARM1

```

```

<PLS > IWATER variable monthly parameter value flags ***
# - # CSNO RTOP VRS VNN RTLI ***
1 0 0 0 0 0
4 0 0 0 0 0
END IWAT-PARM1

IWAT-PARM2
<PLS > IWATER input info: Part 2 ***
# - # *** LSUR SLSUR NSUR RETSC
1 400 0.01 0.1 0.1
4 400 0.01 0.1 0.1
END IWAT-PARM2

IWAT-PARM3
<PLS > IWATER input info: Part 3 ***
# - # ***PETMAX PETMIN
1 0 0
4 0 0
END IWAT-PARM3

IWAT-STATE1
<PLS > *** Initial conditions at start of simulation
# - # *** RETS SURS
1 0 0
4 0 0
END IWAT-STATE1

END IMPLND

SCHEMATIC
<-Source-> <-Area-> <-Target-> MBLK ***
<Name> # <-factor-> <Name> # Tbl# ***
Developed Basin***
PERLND 14 0.129 RCHRES 1 2
PERLND 14 0.129 RCHRES 1 3
PERLND 13 0.315 RCHRES 1 2
PERLND 13 0.315 RCHRES 1 3
IMPLND 1 0.244 RCHRES 1 5
IMPLND 4 0.115 RCHRES 1 5

*****Routing*****
PERLND 14 0.129 COPY 1 12
PERLND 13 0.315 COPY 1 12
IMPLND 1 0.244 COPY 1 15
IMPLND 4 0.115 COPY 1 15
PERLND 14 0.129 COPY 1 13
PERLND 13 0.315 COPY 1 13
RCHRES 1 1 COPY 501 16
END SCHEMATIC

NETWORK
<-Volume-> <-Grp> <-Member-><--Mult-->Tran <-Target vols> <-Grp> <-Member-> ***
<Name> # <Name> # #<-factor->strg <Name> # # <Name> # # ***
COPY 501 OUTPUT MEAN 1 1 48.4 DISPLY 1 INPUT TIMSER 1

<-Volume-> <-Grp> <-Member-><--Mult-->Tran <-Target vols> <-Grp> <-Member-> ***
<Name> # <Name> # #<-factor->strg <Name> # # <Name> # # ***
END NETWORK

RCHRES
GEN-INFO
RCHRES Name Nexits Unit Systems Printer ***
# - #<-----><----> User T-series Engr Metr LKFG ***
1 Trapezoidal Pond-007 1 1 1 1 28 0 1 ***
END GEN-INFO
*** Section RCHRES***

```

```

<PLS > ***** Active Sections *****
# - # HYFG ADFG CNFG HTFG SDFG GQFG OXFG NUFG PKFG PHFG ***
1      1      0      0      0      0      0      0      0      0
END ACTIVITY

```

[illegible]

| Flags for each HYDR Section |   |   |    |    |    |    |                               |   |   | *** |   |                                   |   |   |   |   |                              |   |   |  |
|-----------------------------|---|---|----|----|----|----|-------------------------------|---|---|-----|---|-----------------------------------|---|---|---|---|------------------------------|---|---|--|
| #                           | - | # | VC | A1 | A2 | A3 | ODFVFG for each possible exit |   |   |     |   | *** ODGTFG for each possible exit |   |   |   |   | FUNCT for each possible exit |   |   |  |
|                             |   |   | FG | FG | FG | FG |                               |   |   |     |   |                                   |   |   |   |   |                              |   |   |  |
|                             |   |   | *  | *  | *  | *  | *                             | * | * | *   | * | *                                 | * | * | * | * | *                            | * | * |  |
| 1                           |   |   | 0  | 1  | 0  | 0  | 4                             | 0 | 0 | 0   | 0 | 0                                 | 0 | 0 | 0 | 0 | 2                            | 2 | 2 |  |
| END HYDR-PARM1              |   |   |    |    |    |    |                               |   |   |     |   |                                   |   |   |   |   |                              |   |   |  |

```

# - #      FTABNO      LEN      DELTH      STCOR      KS      DB50      ***
<-----><-----><-----><-----><-----><----->      ***
  1              1      0.01          0.0          0.0          0.5          0.0

```

```

RCHRES Initial conditions for each HYDR section ***
# - # *** VOL Initial value of COLIND Initial value of OUTDGT
*** ac-ft for each possible exit for each possible exit
<-----><-----><-----><-----><-----> *** <-----><-----><-----><-----><----->
1 0 4.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0

```

ND RCHRES

| 91       | 4        |           |          |          |                |  |
|----------|----------|-----------|----------|----------|----------------|--|
| Depth    | Area     | Volume    | Outflow1 | Velocity | Travel Time*** |  |
| (ft)     | (acres)  | (acre-ft) | (cfs)    | (ft/sec) | (Minutes)***   |  |
| 0.000000 | 0.063751 | 0.000000  | 0.000000 |          |                |  |
| 0.044444 | 0.064398 | 0.002848  | 0.003392 |          |                |  |
| 0.088889 | 0.065048 | 0.005724  | 0.004797 |          |                |  |
| 0.133333 | 0.065702 | 0.008630  | 0.005875 |          |                |  |
| 0.177778 | 0.066358 | 0.011565  | 0.006784 |          |                |  |
| 0.222222 | 0.067018 | 0.014529  | 0.007585 |          |                |  |
| 0.266667 | 0.067681 | 0.017522  | 0.008309 |          |                |  |
| 0.311111 | 0.068348 | 0.020545  | 0.008974 |          |                |  |
| 0.355556 | 0.069018 | 0.023597  | 0.009594 |          |                |  |
| 0.400000 | 0.069691 | 0.026680  | 0.010176 |          |                |  |
| 0.444444 | 0.070367 | 0.029792  | 0.010726 |          |                |  |
| 0.488889 | 0.071046 | 0.032935  | 0.011250 |          |                |  |
| 0.533333 | 0.071729 | 0.036107  | 0.011750 |          |                |  |
| 0.577778 | 0.072415 | 0.039311  | 0.012230 |          |                |  |
| 0.622222 | 0.073104 | 0.042544  | 0.012691 |          |                |  |
| 0.666667 | 0.073797 | 0.045809  | 0.013137 |          |                |  |
| 0.711111 | 0.074493 | 0.049104  | 0.013568 |          |                |  |
| 0.755556 | 0.075192 | 0.052430  | 0.013985 |          |                |  |
| 0.800000 | 0.075894 | 0.055788  | 0.014391 |          |                |  |
| 0.844444 | 0.076600 | 0.059177  | 0.014785 |          |                |  |
| 0.888889 | 0.077309 | 0.062597  | 0.015169 |          |                |  |
| 0.933333 | 0.078021 | 0.066049  | 0.015544 |          |                |  |
| 0.977778 | 0.078736 | 0.069532  | 0.015910 |          |                |  |
| 1.022222 | 0.079455 | 0.073047  | 0.016267 |          |                |  |
| 1.066667 | 0.080177 | 0.076595  | 0.016617 |          |                |  |
| 1.111111 | 0.080902 | 0.080174  | 0.016960 |          |                |  |
| 1.155556 | 0.081630 | 0.083786  | 0.017296 |          |                |  |
| 1.200000 | 0.082362 | 0.087431  | 0.017625 |          |                |  |
| 1.244444 | 0.083097 | 0.091107  | 0.017948 |          |                |  |

|          |          |          |          |
|----------|----------|----------|----------|
| 1.288889 | 0.083835 | 0.094817 | 0.018266 |
| 1.333333 | 0.084577 | 0.098559 | 0.018578 |
| 1.377778 | 0.085322 | 0.102335 | 0.018886 |
| 1.422222 | 0.086070 | 0.106144 | 0.019188 |
| 1.466667 | 0.086821 | 0.109986 | 0.019485 |
| 1.511111 | 0.087576 | 0.113861 | 0.019778 |
| 1.555556 | 0.088334 | 0.117770 | 0.020067 |
| 1.600000 | 0.089095 | 0.121713 | 0.020352 |
| 1.644444 | 0.089859 | 0.125690 | 0.020632 |
| 1.688889 | 0.090627 | 0.129701 | 0.020909 |
| 1.733333 | 0.091398 | 0.133746 | 0.026922 |
| 1.777778 | 0.092172 | 0.137825 | 0.033767 |
| 1.822222 | 0.092949 | 0.141939 | 0.038161 |
| 1.866667 | 0.093730 | 0.146087 | 0.041706 |
| 1.911111 | 0.094514 | 0.150270 | 0.044776 |
| 1.955556 | 0.095301 | 0.154489 | 0.047528 |
| 2.000000 | 0.096092 | 0.158742 | 0.050051 |
| 2.044444 | 0.096885 | 0.163030 | 0.052396 |
| 2.088889 | 0.097682 | 0.167354 | 0.054600 |
| 2.133333 | 0.098483 | 0.171713 | 0.056685 |
| 2.177778 | 0.099286 | 0.176108 | 0.058671 |
| 2.222222 | 0.100093 | 0.180539 | 0.060572 |
| 2.266667 | 0.100903 | 0.185005 | 0.062398 |
| 2.311111 | 0.101717 | 0.189508 | 0.064159 |
| 2.355556 | 0.102533 | 0.194047 | 0.065861 |
| 2.400000 | 0.103353 | 0.198622 | 0.067510 |
| 2.444444 | 0.104176 | 0.203234 | 0.069111 |
| 2.488889 | 0.105003 | 0.207882 | 0.070711 |
| 2.533333 | 0.105832 | 0.212567 | 0.072311 |
| 2.577778 | 0.106665 | 0.217290 | 0.073911 |
| 2.622222 | 0.107501 | 0.222049 | 0.075511 |
| 2.666667 | 0.108341 | 0.226845 | 0.077111 |
| 2.711111 | 0.109184 | 0.231679 | 0.078711 |
| 2.755556 | 0.110030 | 0.236551 | 0.080311 |
| 2.800000 | 0.110879 | 0.241460 | 0.081911 |
| 2.844444 | 0.111731 | 0.246407 | 0.083511 |
| 2.888889 | 0.112587 | 0.251391 | 0.085111 |
| 2.933333 | 0.113446 | 0.256414 | 0.086711 |
| 2.977778 | 0.114309 | 0.261476 | 0.088311 |
| 3.022222 | 0.115174 | 0.266575 | 0.089911 |
| 3.066667 | 0.116043 | 0.271713 | 0.091511 |
| 3.111111 | 0.116915 | 0.276890 | 0.093111 |
| 3.155556 | 0.117791 | 0.282106 | 0.094711 |
| 3.200000 | 0.118669 | 0.287361 | 0.096311 |
| 3.244444 | 0.119551 | 0.292654 | 0.097911 |
| 3.288889 | 0.120436 | 0.297987 | 0.099511 |
| 3.333333 | 0.121325 | 0.303360 | 0.101111 |
| 3.377778 | 0.122217 | 0.308772 | 0.102711 |
| 3.422222 | 0.123112 | 0.314224 | 0.104311 |
| 3.466667 | 0.124010 | 0.319715 | 0.105911 |
| 3.511111 | 0.124911 | 0.325247 | 0.107511 |
| 3.555556 | 0.125816 | 0.330819 | 0.109111 |
| 3.600000 | 0.126724 | 0.336431 | 0.110711 |
| 3.644444 | 0.127635 | 0.342083 | 0.112311 |
| 3.688889 | 0.128550 | 0.347776 | 0.113911 |
| 3.733333 | 0.129468 | 0.353510 | 0.115511 |
| 3.777778 | 0.130389 | 0.359284 | 0.117111 |
| 3.822222 | 0.131313 | 0.365100 | 0.118711 |
| 3.866667 | 0.132241 | 0.370957 | 0.120311 |
| 3.911111 | 0.133172 | 0.376855 | 0.121911 |
| 3.955556 | 0.134106 | 0.382794 | 0.123511 |
| 4.000000 | 0.135043 | 0.388775 | 0.125111 |

END FTABLE 1

END FTABLES

EXT SOURCES

| <-Volume-> | <Member> | SsysSgap<--Mult--> | Tran | <-Target vols>     | <-Grp> | <-Member-> | ***        |
|------------|----------|--------------------|------|--------------------|--------|------------|------------|
| <Name>     | #        | <Name>             | #    | tem strg<-factor-> | strg   | <Name>     | # #        |
| WDM        | 2        | PREC               | ENGL | 0.889              | PERLND | 1 999      | EXTNL PREC |
| WDM        | 2        | PREC               | ENGL | 0.889              | IMPLND | 1 999      | EXTNL PREC |

|     |   |      |      |      |        |   |     |       |        |
|-----|---|------|------|------|--------|---|-----|-------|--------|
| WDM | 1 | EVAP | ENGL | 0.76 | PERLND | 1 | 999 | EXTNL | PETINP |
| WDM | 1 | EVAP | ENGL | 0.76 | IMPLND | 1 | 999 | EXTNL | PETINP |

END EXT SOURCES

EXT TARGETS

| <-Volume-> | <-Grp> | <-Member-> | <-Mult--> | Tran       | <-Volume-> | <Member> | Tsys | Tgap   | Amd  | ***  |         |
|------------|--------|------------|-----------|------------|------------|----------|------|--------|------|------|---------|
| <Name>     | #      | <Name>     | #         | <-factor-> | strg       | <Name>   | #    | <Name> | tem  | strg | strg*** |
| RCHRES     | 1      | HYDR       | RO        | 1          | 1          | 1        | WDM  | 1000   | FLOW | ENGL | REPL    |
| RCHRES     | 1      | HYDR       | STAGE     | 1          | 1          | 1        | WDM  | 1001   | STAG | ENGL | REPL    |
| COPY       | 1      | OUTPUT     | MEAN      | 1          | 1          | 48.4     | WDM  | 701    | FLOW | ENGL | REPL    |
| COPY       | 501    | OUTPUT     | MEAN      | 1          | 1          | 48.4     | WDM  | 801    | FLOW | ENGL | REPL    |

END EXT TARGETS

MASS-LINK

| <Volume>      | <-Grp> | <-Member-> | <-Mult--> | <Target>   | <-Grp> | <-Member-> | ***  |
|---------------|--------|------------|-----------|------------|--------|------------|------|
| <Name>        | #      | <Name>     | #         | <-factor-> | <Name> | #          | ***  |
| MASS-LINK     | 2      |            |           |            |        |            |      |
| PERLND        | PWATER | SURO       |           | 0.083333   | RCHRES | INFLOW     | IVOL |
| END MASS-LINK | 2      |            |           |            |        |            |      |
| MASS-LINK     | 3      |            |           |            |        |            |      |
| PERLND        | PWATER | IFWO       |           | 0.083333   | RCHRES | INFLOW     | IVOL |
| END MASS-LINK | 3      |            |           |            |        |            |      |
| MASS-LINK     | 5      |            |           |            |        |            |      |
| IMPLND        | IWATER | SURO       |           | 0.083333   | RCHRES | INFLOW     | IVOL |
| END MASS-LINK | 5      |            |           |            |        |            |      |
| MASS-LINK     | 12     |            |           |            |        |            |      |
| PERLND        | PWATER | SURO       |           | 0.083333   | COPY   | INPUT      | MEAN |
| END MASS-LINK | 12     |            |           |            |        |            |      |
| MASS-LINK     | 13     |            |           |            |        |            |      |
| PERLND        | PWATER | IFWO       |           | 0.083333   | COPY   | INPUT      | MEAN |
| END MASS-LINK | 13     |            |           |            |        |            |      |
| MASS-LINK     | 15     |            |           |            |        |            |      |
| IMPLND        | IWATER | SURO       |           | 0.083333   | COPY   | INPUT      | MEAN |
| END MASS-LINK | 15     |            |           |            |        |            |      |
| MASS-LINK     | 16     |            |           |            |        |            |      |
| RCHRES        | ROFLOW |            |           |            | COPY   | INPUT      | MEAN |
| END MASS-LINK | 16     |            |           |            |        |            |      |

END MASS-LINK

END RUN

DRAFT

DRAFT

## *Disclaimer*

### *Legal Notice*

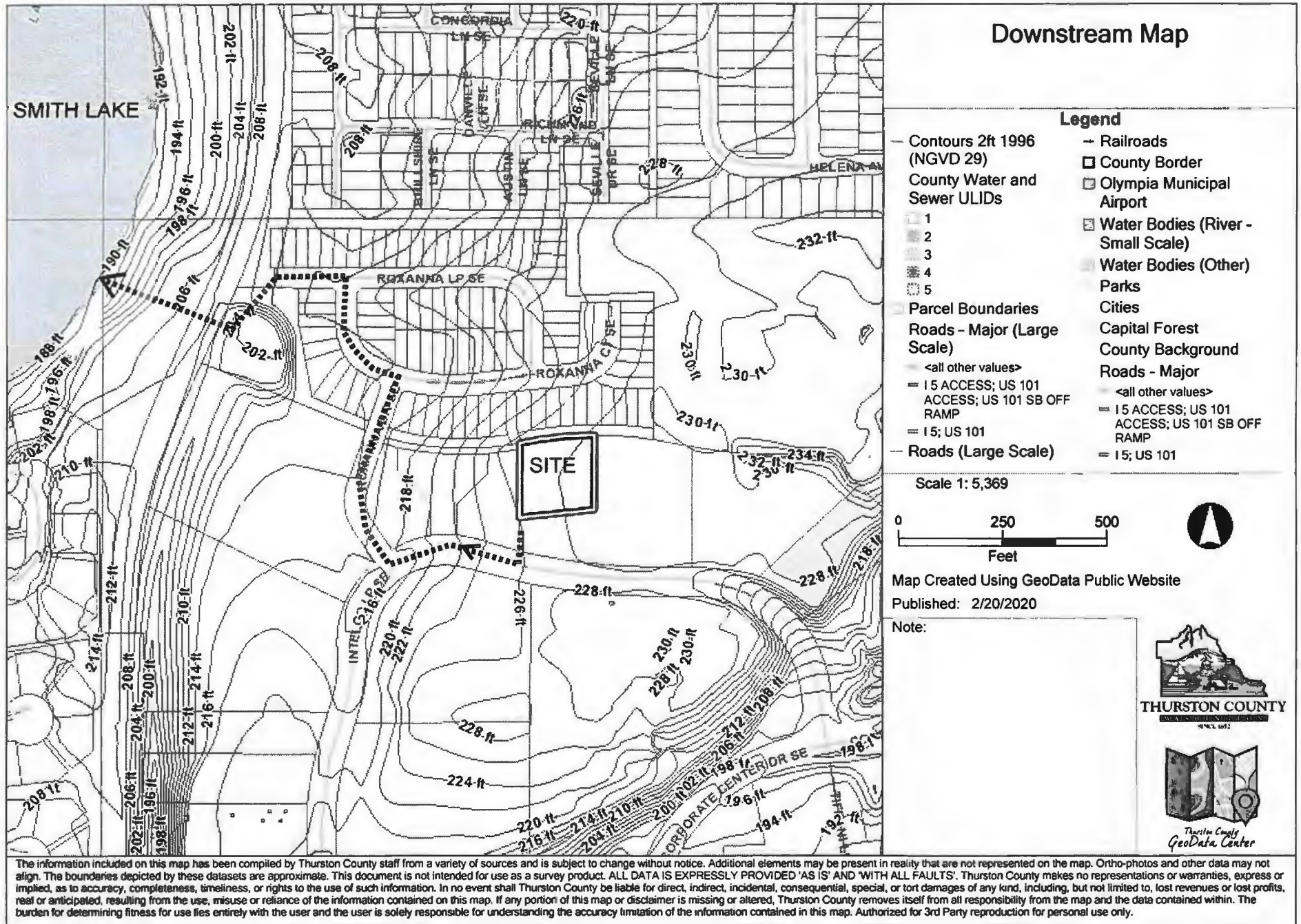
This program and accompanying documentation are provided 'as-is' without warranty of any kind. The entire risk regarding the performance and results of this program is assumed by End User. Clear Creek Solutions Inc. and the governmental licensee or sublicensees disclaim all warranties, either expressed or implied, including but not limited to implied warranties of program and accompanying documentation. In no event shall Clear Creek Solutions Inc. be liable for any damages whatsoever (including without limitation to damages for loss of business profits, loss of business information, business interruption, and the like) arising out of the use of, or inability to use this program even if Clear Creek Solutions Inc. or their authorized representatives have been advised of the possibility of such damages. Software Copyright © by : Clear Creek Solutions, Inc. 2005-2020; All Rights Reserved.

Clear Creek Solutions, Inc.  
6200 Capitol Blvd. Ste F  
Olympia, WA. 98501  
Toll Free 1(866)943-0304  
Local (360)943-0304

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

DRAFT

# APPENDIX F



# Channel Report

Appendix G

Hydraflow Express Extension for Autodesk® AutoCAD® Civil 3D® by Autodesk, Inc.

Thursday, Feb 13 2020

<Name>

## Circular

Diameter (ft) = 1.00

Invert Elev (ft) = 100.00

Slope (%) = 0.50

N-Value = 0.012

## Calculations

Compute by: Q vs Depth

No. Increments = 10

## Highlighted

Depth (ft) = 1.00

Q (cfs) = 2.728

Area (sqft) = 0.79

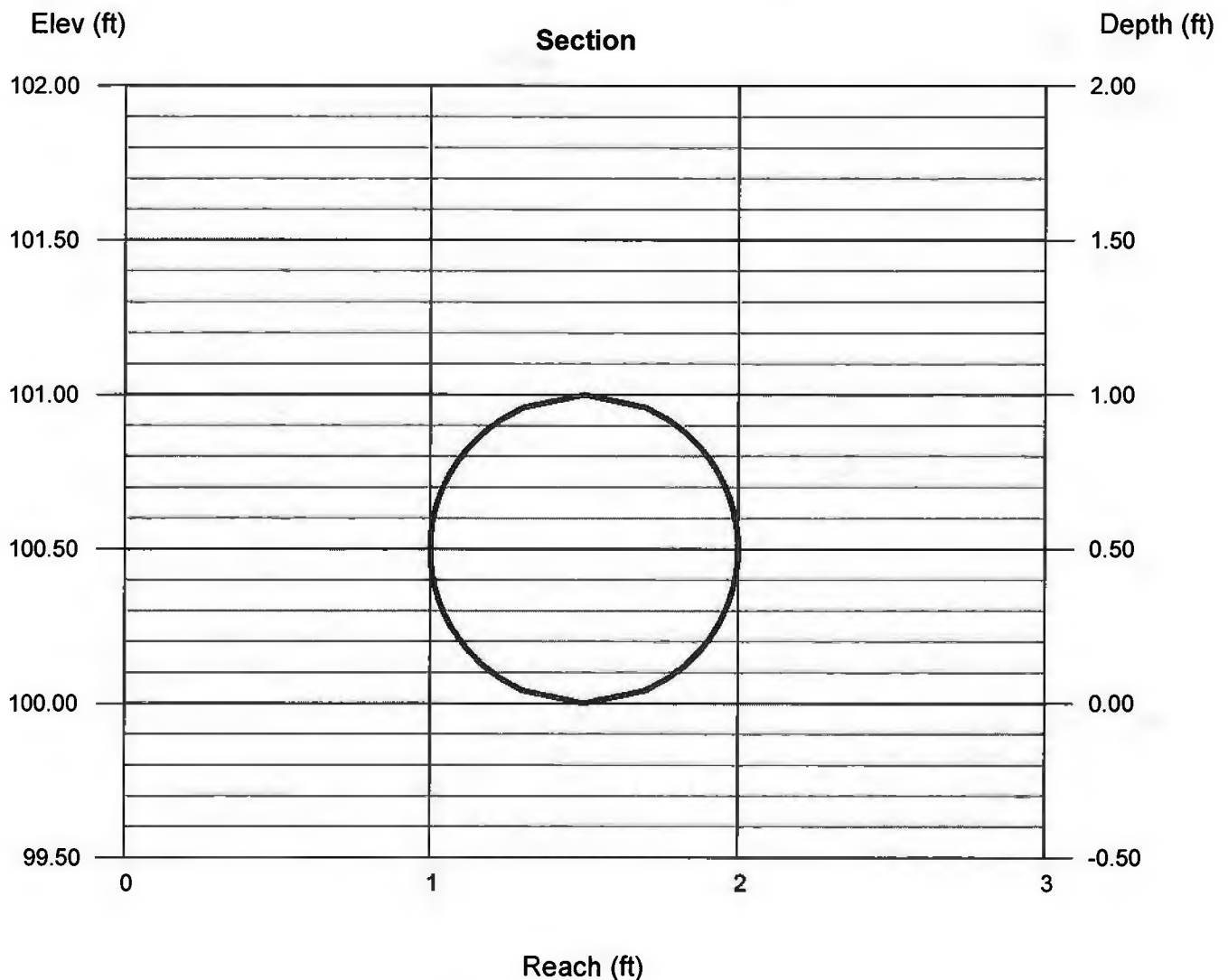
Velocity (ft/s) = 3.47

Wetted Perim (ft) = 3.14

Crit Depth, Yc (ft) = 0.71

Top Width (ft) = 0.00

EGL (ft) = 1.19



# Channel Report

Appendix G

Hydraflow Express Extension for Autodesk® AutoCAD® Civil 3D® by Autodesk, Inc.

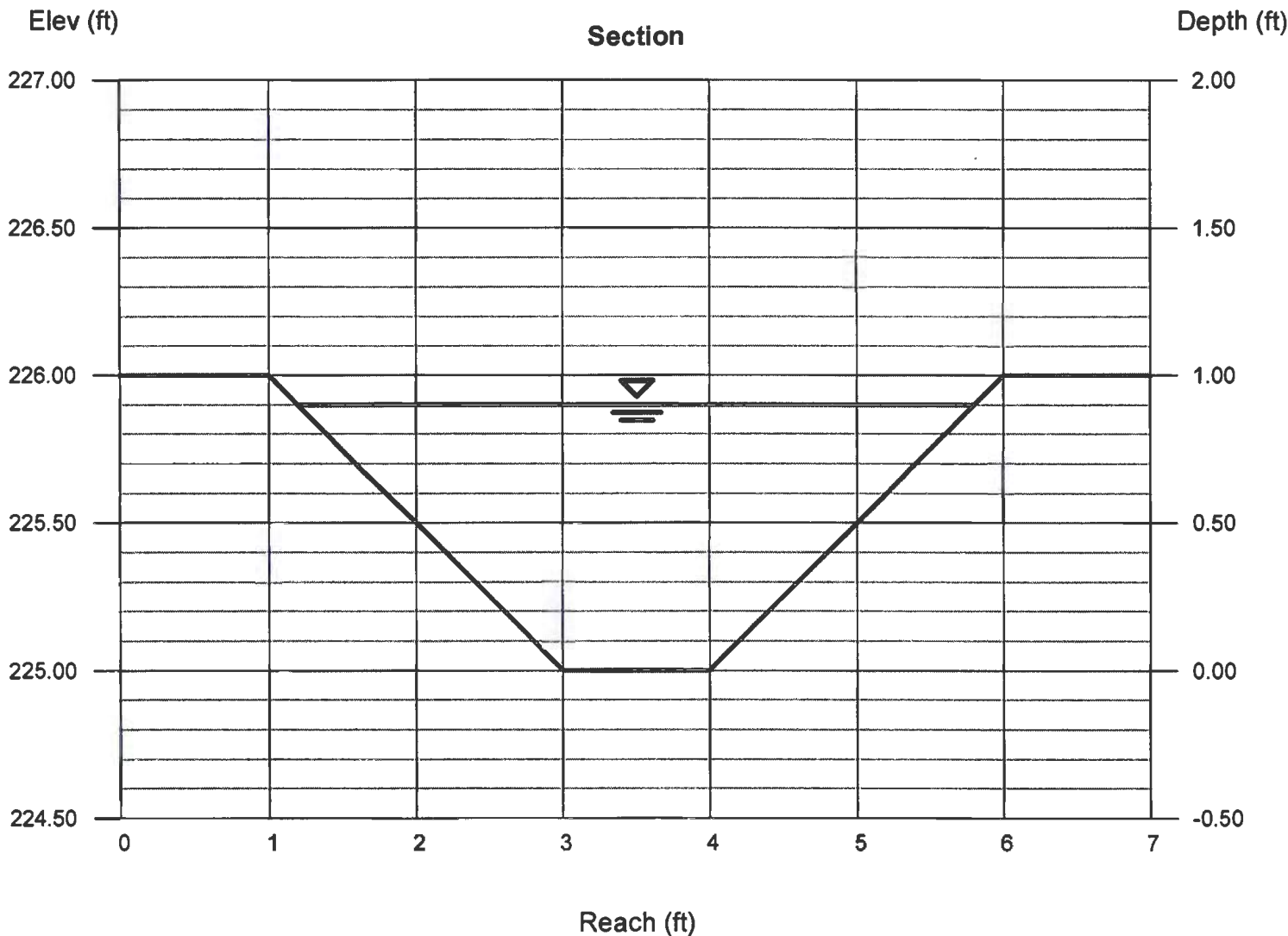
Thursday, Feb 20 2020

<Name>

**Trapezoidal**  
Bottom Width (ft) = 1.00  
Side Slopes (z:1) = 2.00, 2.00  
Total Depth (ft) = 1.00  
Invert Elev (ft) = 225.00  
Slope (%) = 0.50  
N-Value = 0.025

**Calculations**  
Compute by: Q vs Depth  
No. Increments = 10

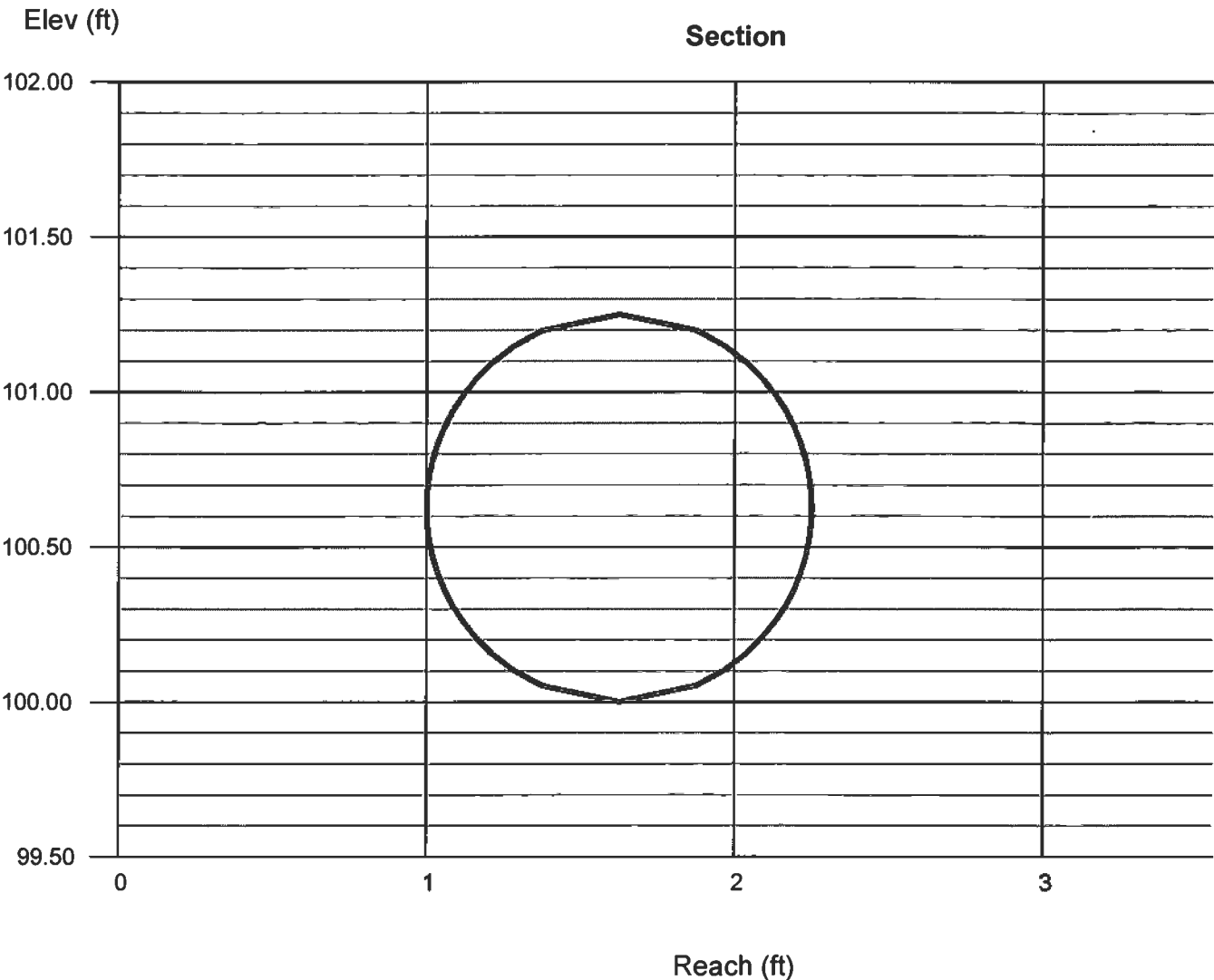
**Highlighted**  
Depth (ft) = 0.90  
Q (cfs) = 6.684  
Area (sqft) = 2.52  
Velocity (ft/s) = 2.65  
Wetted Perim (ft) = 5.02  
Crit Depth, Yc (ft) = 0.72  
Top Width (ft) = 4.60  
EGL (ft) = 1.01



# Channel Report

<Name>

|                     |            |                     |         |
|---------------------|------------|---------------------|---------|
| <b>Circular</b>     |            | <b>Highlighted</b>  |         |
| Diameter (ft)       | = 1.25     | Depth (ft)          | = 1.25  |
|                     |            | Q (cfs)             | = 4.946 |
|                     |            | Area (sqft)         | = 1.23  |
| Invert Elev (ft)    | = 100.00   | Velocity (ft/s)     | = 4.03  |
| Slope (%)           | = 0.50     | Wetted Perim (ft)   | = 3.93  |
| N-Value             | = 0.012    | Crit Depth, Yc (ft) | = 0.91  |
|                     |            | Top Width (ft)      | = 0.00  |
|                     |            | EGL (ft)            | = 1.50  |
| <b>Calculations</b> |            |                     |         |
| Compute by:         | Q vs Depth |                     |         |
| No. Increments      | = 10       |                     |         |



# Channel Report

Appendix G

Hydraflow Express Extension for Autodesk® AutoCAD® Civil 3D® by Autodesk, Inc.

Friday, Feb 14 2020

<Name>

## Circular

Diameter (ft) = 1.00

Invert Elev (ft) = 100.00

Slope (%) = 0.94

N-Value = 0.012

## Calculations

Compute by: Q vs Depth

No. Increments = 10

## Highlighted

Depth (ft) = 1.00

Q (cfs) = 3.740

Area (sqft) = 0.79

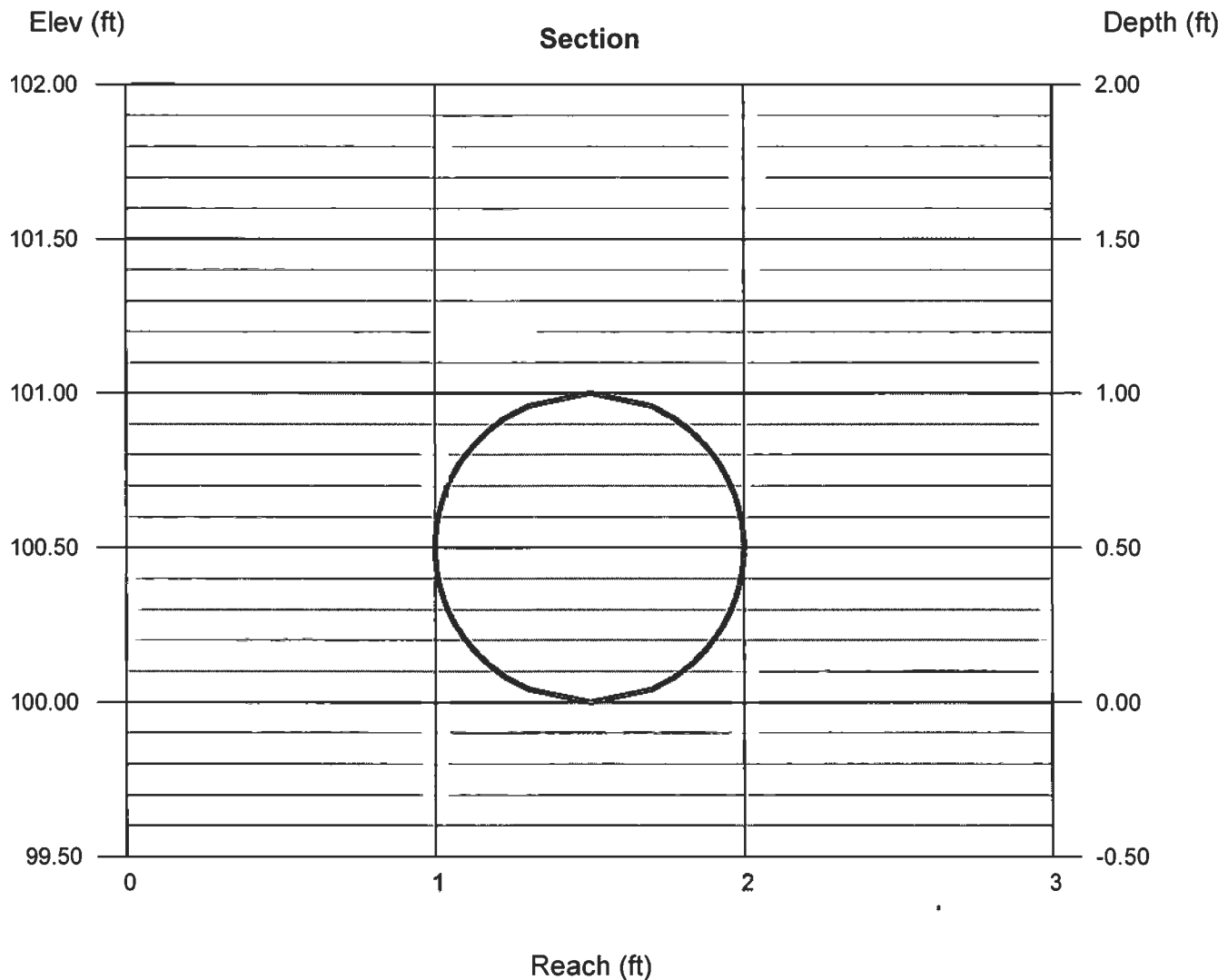
Velocity (ft/s) = 4.76

Wetted Perim (ft) = 3.14

Crit Depth, Yc (ft) = 0.83

Top Width (ft) = 0.00

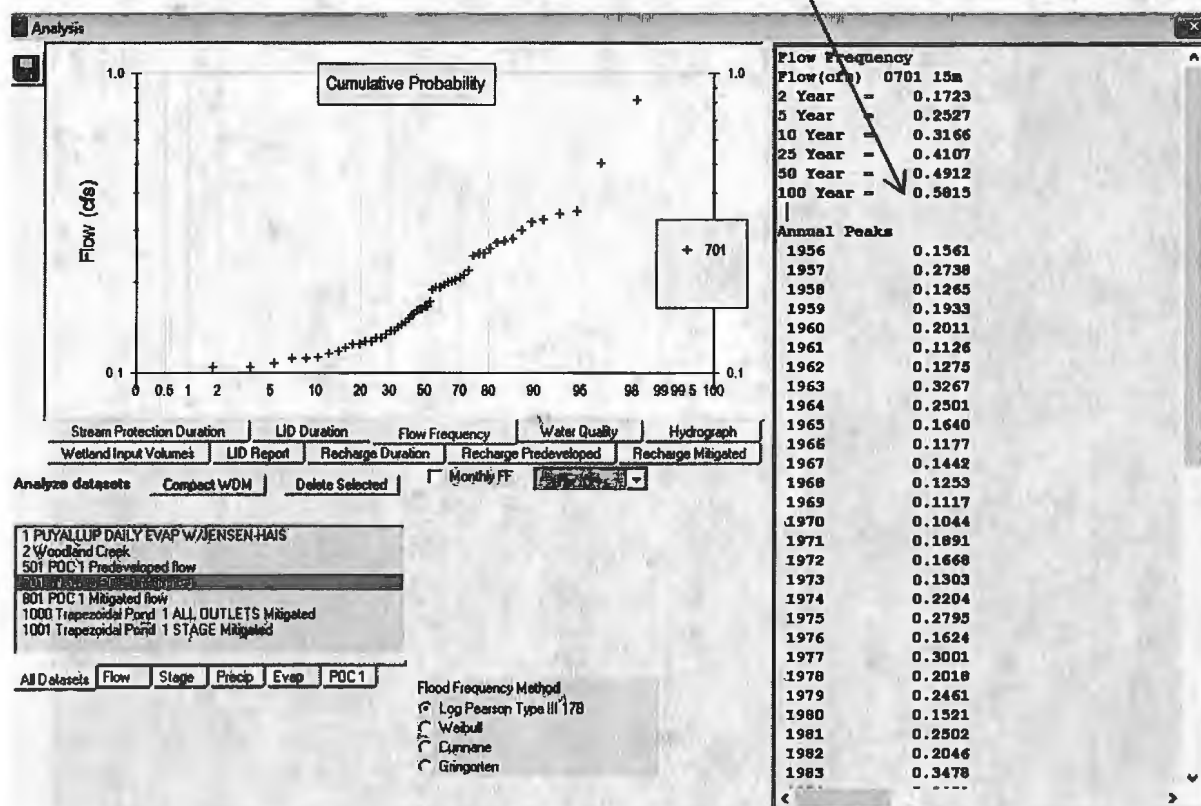
EGL (ft) = 1.35



# Appendix G

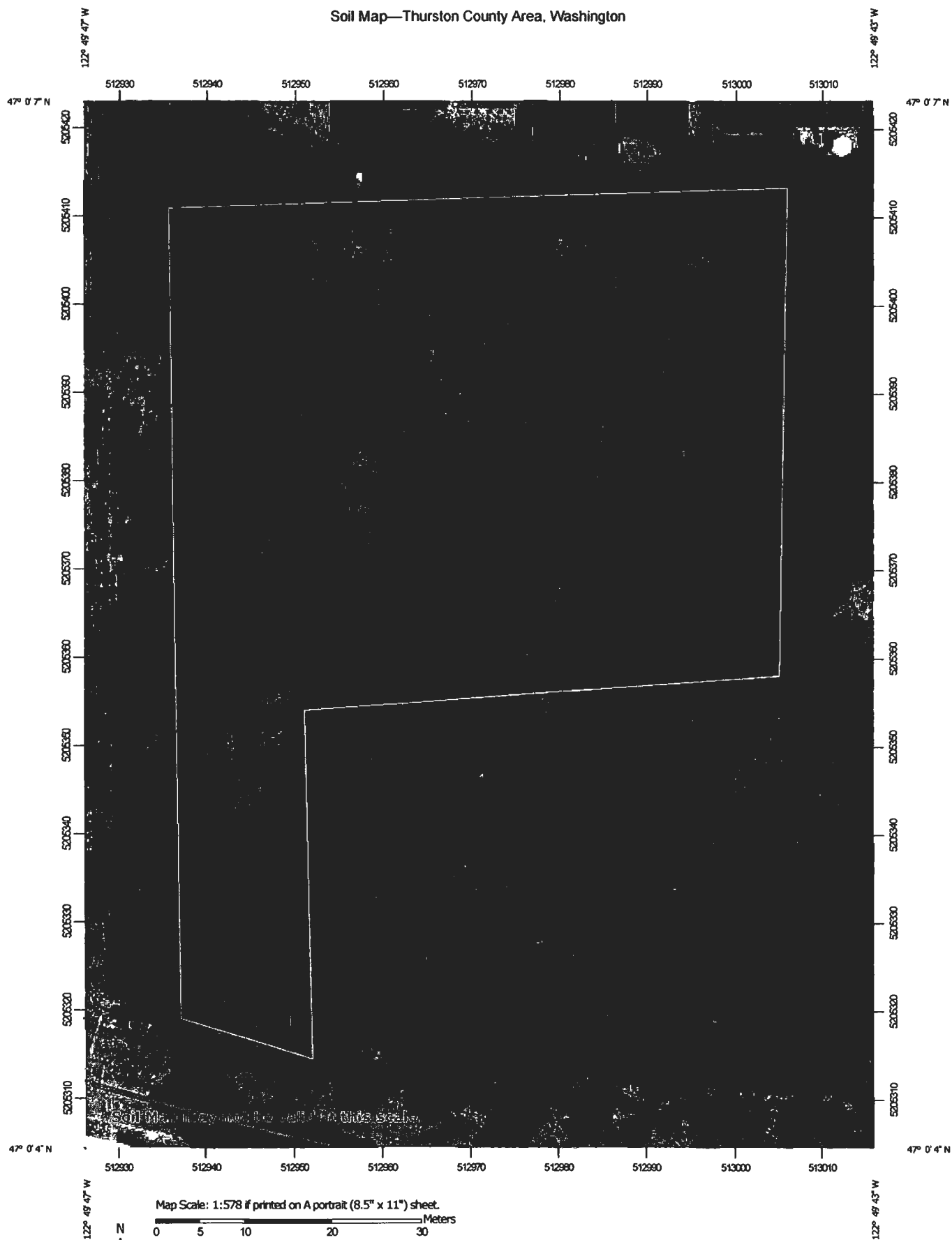
WVHM\_Developed Flow Rate

100-year Peak Flow



# APPENDIX H

## Soil Map—Thurston County Area, Washington



Natural Resources  
Conservation Service

Web Soil Survey  
National Cooperative Soil Survey

2/13/2020  
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.

**Warning:** Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

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

Source of Map: Natural Resources Conservation Service

Web Soil Survey URL:

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: Thurston County Area, Washington

Survey Area Data: Version 13, Sep 16, 2019

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

Date(s) aerial images were photographed: Jul 22, 2018—Jul 27, 2018

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

| Map Unit Symbol             | Map Unit Name                                        | Acres in AOI | Percent of AOI |
|-----------------------------|------------------------------------------------------|--------------|----------------|
| 1                           | Alderwood gravelly sandy loam, 0 to 8 percent slopes | 0.3          | 28.4%          |
| 126                         | Yelm fine sandy loam, 0 to 3 percent slopes          | 0.8          | 71.6%          |
| Totals for Area of Interest |                                                      | 1.1          | 100.0%         |

# SUF

**SOUND URBAN FORESTRY, LLC**

---

Appraisals ~ Site Planning ~ Urban Landscape Design and Management  
Environmental Education ~ Risk Assessment

3/10/2020

City of Lacey  
Puna Lovell, Utility Engineer  
420 College St SE  
Lacey, WA 98503

**RE: Terry Cargil Reservoir WA19ELTree Removal Assessment**

Ms. Lovell:

Upon your request, I have conducted an inventory of the trees to be removed as part of the City's Terry Cargil Reservoir project at 4504B Intelco Loop SE. I have been asked to provide an overview of the trees to be removed from within the City's property due to conflicts with the project as well as recommended removals within the North Pointe buffer to the north due to impacts from the sudden exposure.



### **Removals within City Property**

It has been determined that a total of 71 trees are to be removed from the City's parcel. I personally inventoried these trees and present the following overview.

| <b>Species</b>          | <b>Number of Trees</b> | <b>Diameter Range</b> | <b>Average Condition</b> |
|-------------------------|------------------------|-----------------------|--------------------------|
| Western Red Cedar       | 29                     | 2-56"                 | Poor to Fair             |
| Big Leaf Maple          | 17                     | 4-16"                 | Fair to Good             |
| Douglas Fir             | 13                     | 6-44"                 | Fair                     |
| Red Alder               | 9                      | 4-14"                 | Fair                     |
| Western Hemlock         | 1                      | 5"                    | Fair                     |
| Bitter Cherry           | 1                      | 6"                    | Fair                     |
| Green Ash (Street Tree) | 1                      | 10"                   | Fair                     |
|                         | Total = 71             |                       |                          |

### **Removals within North Pointe Buffer**

A total of 6 trees are recommended for removal with the 25' North Pointe buffer along the north side of the City parcel. The newly created edge will result in exposure to the predominantly south-southwest winds which these trees simply cannot tolerate. The cedars are in severe decline due to drought stress. The upper 1/3 of the canopies are dead with the remaining canopies transparent. These trees will likely die, be prone to failure and are within striking distance of high-use targets. The approximate locations of the trees are shown on the included parcel map.

| <b>ID#</b> | <b>Species</b>    | <b>Diameter</b> | <b>Condition</b> |
|------------|-------------------|-----------------|------------------|
| 1          | Western Red Cedar | 28"             | Poor             |
| 2          | Western Red Cedar | 44"             | Poor             |
| 3          | Western Red Cedar | 40"             | Poor             |
| 4          | Western Hemlock   | 7"              | Fair             |
| 5          | Western Red Cedar | 37"             | Poor             |
| 6          | Western Red Cedar | 53"             | Poor             |

### **Tree Protection**

Tree protection will be necessary for several trees along the outer perimeters of the project area as well as a street tree along Intelco Loop. The locations of the fencing are indicated on the attached demolition plans in orange.

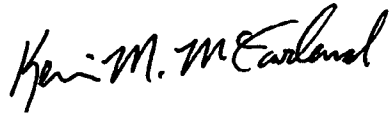
### **Replanting Recommendations**

I recommend the following tree and groundcover species for replanting efforts within the reservoir site or HOA buffer. These selections will meet the Type 1 Landscaping requirements as defined in LMC Chapter 16.80.

- Arborvitae, *Thuja occidentalis* 'Emerald Green'
- Lawn Grass, Fescue blend

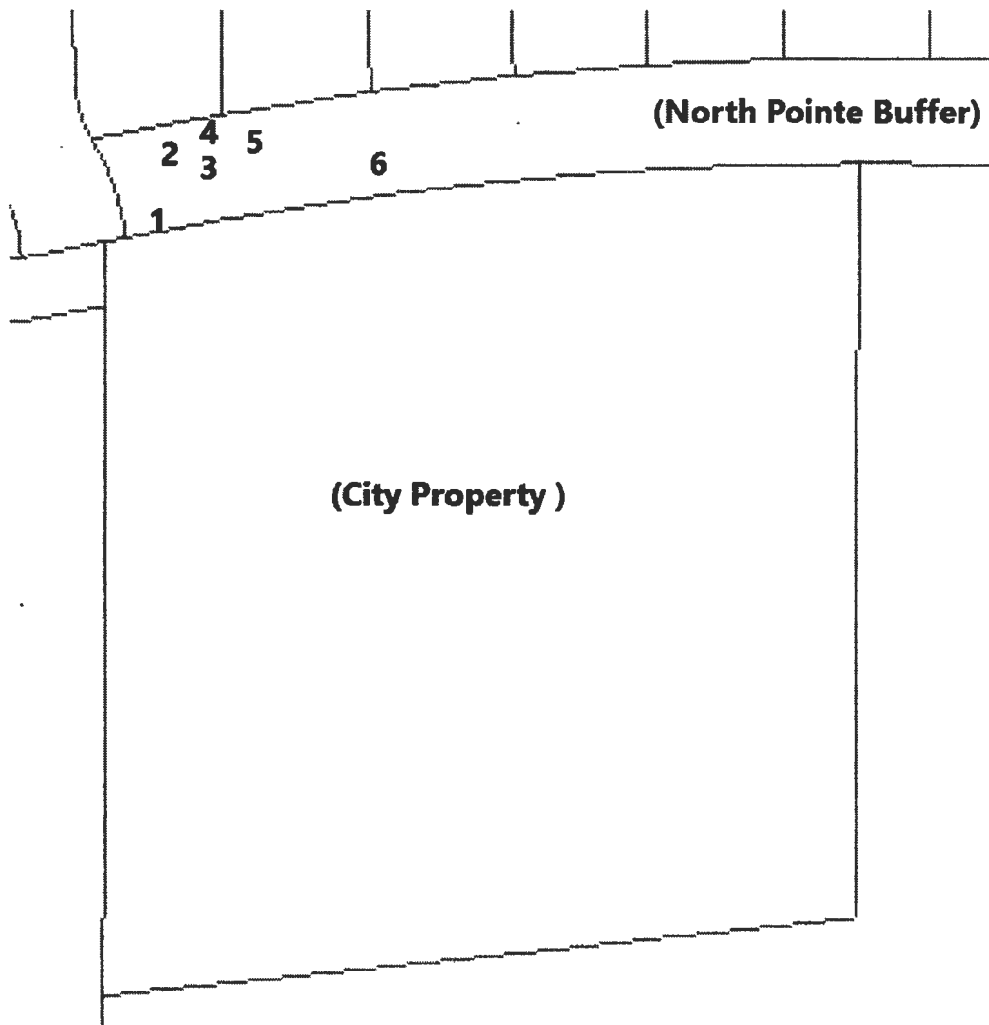
Please contact me should you have any questions.

Sincerely,

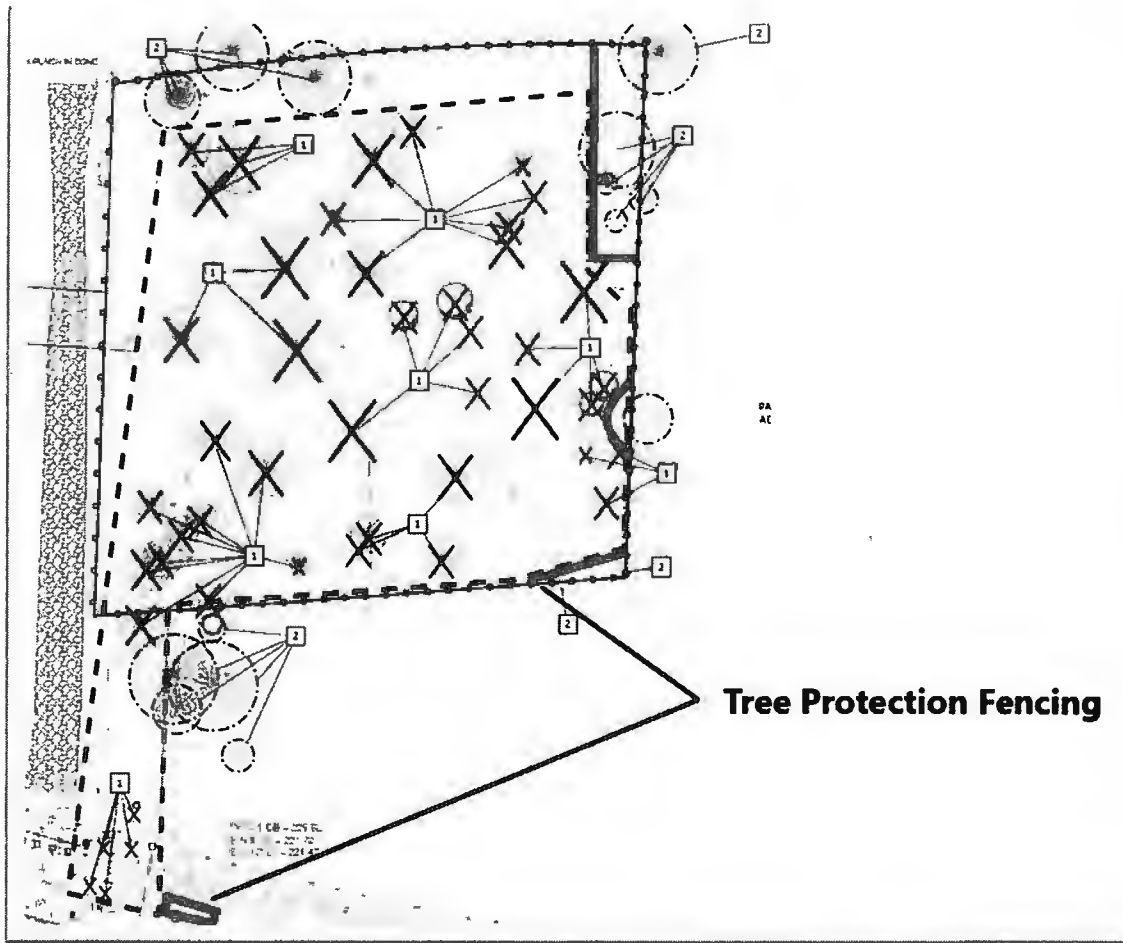
A handwritten signature in black ink that reads "Kevin M. McFarland". The signature is written in a cursive, flowing style.

Kevin M. McFarland, Principal  
Consulting Forester/ISA Certified Arborist PN-0373 & ISA Tree Risk Assessor Qualified  
City of Lacey Contracted Tree Protection Professional  
Sound Urban Forestry, LLC  
1910 E. 4<sup>th</sup> Ave., PMB 97  
Olympia, WA 98506

**Approximate Locations of Trees to be Removed within Buffer**



## Recommended Tree Protection Fencing





## TRANSMITTAL MEMORANDUM

Department of Community Development  
420 College St. SE, Lacey, WA 98503  
360-491-5642

Date: April 9, 2020

Project Name: Terry Cargill Water Reservoir  
H.T.E. Case Number: 19-376  
Parcel Number(s): 58050000601

Please review the attached project information and notify Sarah Schelling, Senior Planner, in our office in writing of any comments or recommendations by April 24, 2020. Your comments will become part of the record and utilized in the decision-making process. You may either mail your comments to the above-mentioned address or e-mail them to [sschelli@ci.lacey.wa.us](mailto:sschelli@ci.lacey.wa.us).

---

### TYPE OF APPLICATION:

Conditional use permit, environmental checklist

---

### TO:

- |                                     |                                          |
|-------------------------------------|------------------------------------------|
| ✓ Building Codes – Jeff             | ✓ Thurston County, adjacent jurisdiction |
| ✓ Fire Codes – Terry                | o Resource Stewardship                   |
| ✓ Development Review Division - Tom | ✓ WA State Dept. of Fish and Wildlife    |
| ✓ Traffic Division                  | o Regional Biologist                     |
| ✓ Water Resources Engineer - Doug   | ✓ WA State Department of Ecology         |
| ✓ Erosion Control - Carlos          | ✓ US Army Corps of Engineers             |
| ✓ Site Plan Review Committee        | ✓ WA State Historic Preservation Office  |
| o R. Walk, S. Egger, S. Spence      | ✓ Nisqually Tribe                        |
| ✓ City Arborist                     | ✓ Squaxin Island Tribe                   |
| ✓ City Engineer                     |                                          |

If comments are not received by the date noted above, it will be construed that your agency/department does not have any comments or objections to the project as proposed.



## NOTICE OF APPLICATION WITH THE OPTIONAL DNS PROCESS

The City of Lacey Department of Community Development has received the following application for Conditional Use Permit:

Date Application Received: March 26, 2020

Project Name: Terry Cargil Reservoir

Project Description: Construction of a 130-foot tall, elevated water tank, capable of storing 1.25 million gallons of water for use by the City of Lacey Water customers. Associated improvements include installation of a site stormwater system and site landscaping.

Project Location: 4504B Intelco Loop Southeast, Lacey, Washington 98503. The parcel number is 5805000601 and is located in Lacey, Thurston County, Washington.

**The following studies and/or reports are required as a part of this application:**  
Stormwater Report

**This Application will undergo the following approval process:**

Environmental Review: A review of the submitted Environmental Checklist and other supporting studies will be conducted.

Other Permits/Approvals Required: Public Works construction drawing approval, building and grading permits

**At minimum, this project will be subject to the following regulations:**

Lacey Municipal Code (LMC) 16.41 "Community Office;" LMC 16.66 "Conditional Uses and Permits;" LMC 16.80 "Landscaping Requirements;" the International Building Code; the International Fire Code; and the Public Works Development Guidelines and Public Works Standards.

On April 9, 2020 this application was deemed complete pursuant to RCW 36.70B.070. This determination of completeness means that the application is sufficient for continued review. This determination does not preclude the City of Lacey or other reviewing agencies from requesting additional information or studies either at the time of this notice or subsequently, if new information is required or if substantial changes in the proposal occur.

Pursuant to WAC 197-11-355, the City of Lacey is using the Optional DNS process. The Optional Process enables the comment periods for the environmental review and notice of application to be integrated. The City of Lacey expects to issue a determination of non-significance for this project. This commenting period may be your



only opportunity to comment on the environmental impacts of the proposal. Copies of the environmental checklist and supporting materials may be reviewed by contacting City of Lacey Staff at the email address identified below.

Anyone may review any document submitted as part of this project application and may comment on this proposal. No action will be taken on this application for 14 days from the date of this notice or before April 24, 2020; comments on the application will be taken until the day of the public hearing (date TBD).

If you would like to make written comments, these may be directed to Sarah Schelling, Senior Planner, in the Department of Community Development at the address below or by email at [sschelli@ci.lacey.wa.us](mailto:sschelli@ci.lacey.wa.us). If a public hearing is required as part of the application review process, any member of the public may request to be notified, and may give written or oral comment on the proposal to the Hearings Examiner, and may request a copy of any decisions made on the project. A request for advance notification should be made to the Department of Community Development.

**NOTE:** Pursuant to RCW 43.21C.075 and Lacey City Code 14.24.170(A), a project denial based upon environmental information, and a conditioned or mitigated Determination of Nonsignificance (DNS) may be appealed by any agency or aggrieved person. Appeals are filed either with the Community Development Department when there is also an underlying governmental action or with the City Council if there is no underlying governmental action. Appeals to the City Council must be filed within ten (10) days of the issuance of the written decision (refer to the Lacey City Code for time periods on appeals filed with the Community Development Department).

Lacey Community Development Department  
420 College St. SE  
Lacey, WA 98503  
(360) 491-5642  
[sschelli@ci.lacey.wa.us](mailto:sschelli@ci.lacey.wa.us)

## **NOTICE OF APPLICATION**

Notice is hereby given that the City of Lacey received a conditional use permit application on March 26, 2020, for the following proposal:

Application #19-376: Puna Clark for the City of Lacey Public Works Department requests approval to construct a 130-foot tall, elevated water tank, capable of storing 1.25 million gallons of water for use by the City of Lacey Water customers. Associated improvements include installation of a site stormwater system and site landscaping. The site address is 4504B Intelco Loop Southeast, Lacey, Washington 98503. The parcel number is 5805000601 and is located in Lacey, Thurston County, Washington.

On April 9, 2020, this application was deemed complete pursuant to RCW 36.70B.070. This determination of completeness means that the application is sufficient for continued review. Pursuant to WAC 197-11-355, the City of Lacey is using the Optional DNS process. The City of Lacey expects to issue a determination of nonsignificance (DNS) for this project. The complete application, notice of application, supporting documents and project information may be reviewed at the City of Lacey Community Development Department. Any one who wishes to make comment on this application may do so within 14 days from the date the application was deemed complete. If you would like to comment on this proposal please contact Sarah Schelling, Senior Planner, of the City of Lacey Department of Community Development at the email address or telephone number located below. Comments on this application shall be received by the city before 5:00 p.m., April 24, 2020.

LACEY COMMUNITY DEVELOPMENT DEPARTMENT  
420 College Street SE  
Lacey, WA 98503  
(360) 491-5642  
[sschelli@ci.lacey.wa.us](mailto:sschelli@ci.lacey.wa.us)

---

Do not publish below this line

Please Publish: Monday April 13, 2020

Send bill to City of Lacey, 420 College St. SE, Lacey, WA 98503.



**External Email Warning! Use caution before clicking links or opening attachments.**

Good Morning Sarah,

Thank you for contacting the Squaxin Island Tribe Cultural Resources Department regarding the above listed project for our review and comment. We have no specific cultural resource concerns for this project. However, if DAHP recommends a survey, or any other additional recommendations, we concur with DAHP's recommendations. We would prefer to receive an electronic copy by email once completed. If any archaeological or cultural resources are uncovered during implementation, please halt work in the area of discovery and contact DAHP and the Squaxin Island Tribe's Archaeologist, Shaun Dinubilo via email at [sdinubilo@squaxin.us](mailto:sdinubilo@squaxin.us). Please do note that this department only conducts a cultural resources review of the proposed project area.



Shaun Dinubilo  
Archaeologist  
CR Department  
Squaxin Island Tribe  
200 S.E. Billy Frank Jr. Way  
Shelton, WA 98584  
Office Phone: 360-432-3998  
Cell Phone: 360-870-6324  
Email: [sdinubilo@squaxin.us](mailto:sdinubilo@squaxin.us)

**From:** Sarah Schelling

**Sent:** Thursday, April 9, 2020 3:24 PM

**To:** 'Theresa.Nation@dfw.wa.gov' ; 'delicia.durden@co.thurston.wa.us' ; Annette Bullchild - nisqually ; Brad Beach - nisqually ; DAHP - SEPA ; Matthew Herrington - Comcast ; SEPA Unit ; Shaun Dinubilo

**Subject:** City of Lacey Project #19-376 - Notice of Application and Project Documents

Good afternoon;

Attached find a link to an FTP site for documents related to City of Lacey Project #19-376 – Terry Cargill Water Reservoir Conditional Use Permit application; documents on the FTP site include the application routing sheet, notice of application, application, SEPA checklist, plans and other supporting documents.



The comment period closes on April 24, 2020 at 5pm. Please let me know if you have any questions, or have difficulty accessing any documents. Please note that the ftp site should be accessible through any browser EXCEPT for Microsoft Edge.

[ftp://ftp.ci.lacey.wa.us/CommunityDev/19\\_376%20Terry%20Cargill%20Reservoir](ftp://ftp.ci.lacey.wa.us/CommunityDev/19_376%20Terry%20Cargill%20Reservoir)

Thank you,

Sarah Schelling, AICP  
Senior Planner  
Community and Economic Development  
360.438.2689  
[sschelli@ci.lacey.wa.us](mailto:sschelli@ci.lacey.wa.us)



**Nisqually Indian Tribe**  
**4820 She-Nah-Num Dr. S.E.**  
**Olympia, WA 98513**  
**(360) 456-5221**

April 15, 2020

Sarah Schelling, AICP, Senior Planner  
City of Lacey  
Community Development Department  
420 College St. SE  
Lacey, WA 98503

Dear Ms. Schelling,

The Nisqually Indian Tribe thanks you for the opportunity to comment on:

**Re: 19-376**

The Nisqually Indian Tribe has reviewed the notice of application and accompanying documents that were provided for the above-named project and haveponse no further information or concerns at this time. Please keep us informed if there are any Inadvertent Discoveries of Archaeological Resources/Human Burials.

Sincerely,

Brad Beach  
THPO Department  
360-456-5221 ext 1277  
[beach.brad@nisqually-nsn.gov](mailto:beach.brad@nisqually-nsn.gov)

Annette "Nettsie" Bullchild  
THPO Department  
360-456-5221 ext 1106  
[bullchild.annette@nisqually-nsn.gov](mailto:bullchild.annette@nisqually-nsn.gov)

Jeremy "Badoldman" Perkuhn  
THPO Department  
360-456-5221 ext 1274  
[badoldman.jp@nisqually-nsn.gov](mailto:badoldman.jp@nisqually-nsn.gov)





## Initial Stormwater Review Memo

**Date:** April 24, 2020  
**Planner:** Sarah Schelling, AICP, Senior Planner  
**Reviewer:** Doug Christenson, Water Resources Engineer

**PROJECT:** Terry Cargil Reservoir CUP Application  
**Location:** 4504B Intelco Loop SE  
**Applicant:** City of Lacey c/o Puna Clarke  
**Parcel No.:** 58050000601  
**SUBMITTAL:** Preliminary Stormwater Site Plan (Stormwater Report) dated March 2020  
**Engineer:** Murraysmith Inc., Tacoma WA  
**HTE Case No.:** 19-376

The draft Stormwater Site Plan (SSP) is sufficiently complete for initial stormwater review, and the proposed stormwater management concept appears feasible and approvable, as shown on the 30% submittal plan sheet C-3 in the Stormwater Report. A few minor comments to be addressed with the civil plan submittal:

1. Please provide erosion prevention at the pipe outfalls into the detention pond.
2. The detention pond slopes appear to begin right at the edge of pavement. I'd suggest adding a shoulder transition between the pavement and pond slope.
3. Please provide a cross-sectional view of the proposed detention pond, including side slopes, outlet structure, and pipes into and out of the detention facility.
4. A maintenance access ramp to the pond floor is typically required, per Section 7.5.1 of the 2016 Stormwater Design Manual (page 7-137). If feasible, try to include a vehicle-accessible ramp in the vicinity of the outlet structure.

End of initial stormwater review comments. Thank you.



**CITY OF LACEY  
DEVELOPMENT REVIEW  
PUBLIC WORKS DIVISION  
CONDITIONAL USE PERMIT  
CONDITIONS**



**PW FILE #: 118-32-421XXX**

**OWNER: City of Lacey**

**APPLICANT: : City of Lacey, Puna Clarke P.E.**

**PROPOSED USE: New Elevated Water Storage Reservoir**

**PLANNER: Sarah Schelling**

**COMMENTS DATE: April 13, 2020**

**H.T.E. CASE NUMBER: 19-376**

**NOTES BY: Tom Stiles**

**Specific Water Improvements:**

1. The proposed reservoir shall be connected to existing water mains in accordance with the City of Lacey Water Comprehensive Plan.
2. An irrigation meter with a Double Check Valve Assembly backflow prevention device is suggested for all landscaped areas. (DG&PWS 6.120 F)

**General Water Improvements:**

3. Water system improvements shall meet the requirements of the City of Lacey, the Coordinated Water System Plan (CWSP), Department of Health (DOH), City of Lacey Water System Plan, AWWA, Department of Ecology, Thurston County Environmental Health and City of Lacey Fire Code Official's standards. (DG&PWS, Water 6.010)
4. Extend water mains throughout the project to satisfy City of Lacey Water Comprehensive Plan requirements. Also, extend water mains throughout the site to assure fire, water quality and domestic requirements can be satisfied. Water mains shall be extended on North or East sides of roadways or drive aisles six feet off the centerline. (DG&PWS, Water 6.020)

**Specific Sewer Improvements:**

5. Utilize the existing 10-inch sewer main in Intelco Loop as needed for disposal of reservoir water.

**General Sewer Improvements:**

6. Sanitary sewer improvements associated with this project shall meet the requirements of the City of Lacey Comprehensive Sanitary Sewer Plan,



Thurston County Health Department, Washington State Department of Health (DOH), the LOTT Clean Water Alliance and Department of Ecology. (DG&PWS, Sewer 7A.010 and Subdivisions and Short Plat 2-21)

**Specific Stormwater Improvements:**

7. Treatment and infiltration/flow control facilities shall be constructed for stormwater associated with the site and adjacent properties currently discharging to the site. City of Lacey 2016 Stormwater Design Manual (SDM) Chapter 1.
8. Since the project is located in a Category I Critical Aquifer Recharge Area, Enhanced treatment for stormwater will be required. (SDM 8.3.4)
9. Individual roof drain infiltration systems shall be installed for the reservoir roof area. (SDM 7.4.10)
10. The maximum depth of an infiltration facility is 20 feet below the surrounding finished (developed) ground elevation, in order to provide for long-term maintenance access to the facility. (SDM 7.3)

**Please see Doug Christenson's comments for additional specific stormwater conditions**

**General Stormwater Improvements:**

11. This project shall comply with the City of Lacey 2016 Stormwater Design Manual (LMC 14.27). Stormwater drainage and erosion control submittals shall be in conformance with the formatting and content requirements described in Chapter 3 of the 2016 Stormwater Design Manual.
12. A final Stormwater Site Plan, including a drainage report and drainage plans in conformance with current Stormwater Design Manual standards, shall be provided prior to final Public Works civil approval. Some key elements to be included within the report are: the project engineer's certification; descriptions of how each of the Core Requirements is being addressed; construction SWPPP; basin map and plan drawings; hydrologic modeling inputs and results (including the WWHM 2012 Data files produced with the model); summary data of sub-basin areas, design calculations, and facility sizing; soils report and infiltration analysis; soil management plan; maintenance agreement/covenant; and a stormwater facilities maintenance manual (SDM 2.2.1).
13. This project shall retain, disperse, and infiltrate stormwater on-site to the maximum extent feasible. Design of infiltration facilities requires site

infiltration analysis, to determine wet-season soil and groundwater conditions and to establish a long-term design infiltration rate. (SDM 2.2.5 & 7.2)

14. A Construction Stormwater Pollution Prevention Plan (SWPPP) shall be submitted to and approved by the City prior to beginning site work or construction of the project. A complete SWPPP consists of both a narrative report and a temporary erosion and sediment control plan drawing. Each of the 13 SWPPP Elements as identified in Chapter 5 of the City of Lacey 2016 Stormwater Design Manual shall be addressed and included in the construction SWPPP. If site conditions render any SWPPP elements unnecessary, exemptions for each element shall be clearly justified in the narrative report.

15. A Stormwater Facility Maintenance Manual per chapter 3 of the City of Lacey 2016 Stormwater Design Manual shall be submitted to and approved by the City of Lacey. The maintenance manual shall be included in the drainage report as part of the stormwater site plan.

The maintenance manual shall be prepared as a stand-alone document for the post-development facility owner(s). The maintenance plan shall be submitted to and approved by the City prior to civil drawing approval.

16. From October 1 through April 30, clearing, grading, and other soil disturbing activities shall be prohibited unless shown to the satisfaction of the City of Lacey that sediment-laden runoff will be prevented from leaving the site. (SDM 5.2.3)

**Specific Transportation Improvements:**

Frontage improvements were previously installed. Additional frontage improvements are not required.

**Please see Martin Hoppe's comments for additional specific transportation conditions**

**General Transportation Improvements:**

17. Access shall be provided to the property as determined and approved by the City. All access points shall meet minimum access spacing, minimum corner clearance, sight distance and minimum or maximum width requirements as outlined in the Development Guidelines & Public Works standards. (DG & PWS, Transportation 4B.025)

**Rather than having two access points immediately adjacent to each other, the coordination of the existing pedestrian trail and the access to the site shall be incorporated into the design.**

18. Traffic mitigations as determined by the Commercial Traffic Generation worksheet are required. Conditions of Lacey Municipal Code 14.21 shall be satisfied.

**General Surveying Requirements:**

19. The City of Lacey Coordinate System is a ground scale coordinate system derived from the Washington Coordinate System, NAD 83/91. Units are expressed in feet. Data can be obtained from Lacey Public Works Department. (DG&PWS 3.025)
20. City of Lacey Vertical Datum has elevations referenced to the National Geodetic Vertical Datum of 1929 (NGVD29). Units are expressed in feet. A benchmark listing can be obtained from Lacey Public Works Department. (DG&PWS 3.025)

**Other Requirements:**

21. All improvements shall satisfy City of Lacey Development Guideline Standards in place at the time complete application is obtained (as determined by the City of Lacey Community Development Department). (LMC )
22. All Public Works improvements must be designed by an engineer licensed in the State of Washington and submitted to the City of Lacey Public Works Department for review and approval. (DGPWS 3.040)

End of Comments



STATE OF WASHINGTON  
DEPARTMENT OF ECOLOGY

PO Box 47775 • Olympia, Washington 98504-7775 • (360) 407-6300  
711 for Washington Relay Service • Persons with a speech disability can call 877-833-6341

April 24, 2020

Sarah Schelling, AICP, Senior Planner  
City of Lacey  
Community Development Department  
PO Box 3400  
Lacey, WA 98509-3400

Dear Sarah Schelling:

Thank you for the opportunity to comment on the optional determination of nonsignificance/notice of application for the Terry Cargill Water Reservoir Project (19-376) located at 4504B Intelco Loop Southeast. The Department of Ecology (Ecology) reviewed the environmental checklist and has the following comment(s):

**SOLID WASTE MANAGEMENT: Derek Rockett (360) 407-6287**

All grading and filling of land must utilize only clean fill. All other materials may be considered solid waste and permit approval may be required from the local jurisdictional health department prior to filling. All removed debris resulting from this project must be disposed of at an approved site. Contact the local jurisdictional health department for proper management of these materials.

**TOXICS CLEANUP: Chris Huff (360) 407-0242**

If contamination is suspected, discovered, or occurs during the proposed project, testing of the suspected contaminated material must be conducted. If contamination of soil or groundwater is readily apparent, or is revealed by testing, the Department of Ecology must be notified. Notify the Environmental Report Tracking System Coordinator in the Southwest Regional Office at (360) 407-6300.

**WATER QUALITY/WATERSHED RESOURCES UNIT:  
Sheila Marcoe (360) 407-6329**

Erosion control measures must be in place prior to any clearing, grading, or construction. These control measures must be effective to prevent stormwater runoff from carrying soil and other pollutants into surface water or stormdrains that lead to waters of the state. Sand, silt, clay particles, and soil will damage aquatic habitat and are considered to be pollutants.

Any discharge of sediment-laden runoff or other pollutants to waters of the state is in violation of Chapter 90.48 RCW, Water Pollution Control, and WAC 173-201A, Water Quality Standards for Surface Waters of the State of Washington, and is subject to enforcement action.



Construction Stormwater General Permit:

The following construction activities require coverage under the Construction Stormwater General Permit:

1. Clearing, grading and/or excavation that results in the disturbance of one or more acres **and** discharges stormwater to surface waters of the State; and
2. Clearing, grading and/or excavation on sites smaller than one acre that are part of a larger common plan of development or sale, if the common plan of development or sale will ultimately disturb one acre or more **and** discharge stormwater to surface waters of the State.
  - a) This includes forest practices (including, but not limited to, class IV conversions) that are part of a construction activity that will result in the disturbance of one or more acres, **and** discharge to surface waters of the State; and
3. Any size construction activity discharging stormwater to waters of the State that Ecology:
  - a) Determines to be a significant contributor of pollutants to waters of the State of Washington.
  - b) Reasonably expects to cause a violation of any water quality standard.

If there are known soil/ground water contaminants present on-site, additional information (including, but not limited to: temporary erosion and sediment control plans; stormwater pollution prevention plan; list of known contaminants with concentrations and depths found; a site map depicting the sample location(s); and additional studies/reports regarding contaminant(s)) will be required to be submitted.

Additionally, sites that discharge to segments of waterbodies listed as impaired by the State of Washington under Section 303(d) of the Clean Water Act for turbidity, fine sediment, high pH, or phosphorous, or to waterbodies covered by a TMDL may need to meet additional sampling and record keeping requirements. See condition S8 of the Construction Stormwater General Permit for a description of these requirements. To see if your site discharges to a TMDL or 303(d)-listed waterbody, use Ecology's Water Quality Atlas at: <https://fortress.wa.gov/ecy/waterqualityatlas/StartPage.aspx>.

The applicant may apply online or obtain an application from Ecology's website at: <http://www.ecy.wa.gov/programs/wq/stormwater/construction/-Application>. Construction site operators must apply for a permit at least 60 days prior to discharging stormwater from construction activities and must submit it on or before the date of the first public notice.

Ecology's comments are based upon information provided by the lead agency. As such, they may not constitute an exhaustive list of the various authorizations that must be obtained or legal requirements that must be fulfilled in order to carry out the proposed action.

If you have any questions or would like to respond to these comments, please contact the appropriate reviewing staff listed above.

Department of Ecology  
Southwest Regional Office

(GMP:202001980)

cc: Derek Rockett, SWM  
Chris Huff, TCP  
Sheila Marcoe, WQ



CITY COUNCIL  
ANDY RYDER  
*Mayor*  
CYNTHIA PRATT  
*Deputy Mayor*

LENNY GREENSTEIN  
MICHAEL STEADMAN  
CAROLYN COX  
ED KUNKEL  
MALCOLM MILLER

CITY MANAGER  
SCOTT SPENCE

## DETERMINATION OF NONSIGNIFICANCE

SEPA/Case Number: 19-376

**Description of Proposal:** Construction of a 130-foot tall, elevated water tank, capable of storing 1.25 million gallons of water for use by the City of Lacey Water customers. Associated improvements include installation of a site stormwater system and site landscaping.

**Proponent:** Puna Clark for the City of Lacey

**Location of Proposal:** 4504B Intelco Loop Southeast, Lacey, Washington 98503. The parcel number is 5805000601 and is located in Lacey, Thurston County, Washington.

**Lead Agency:** City of Lacey Community Development Department

**Threshold Determination:** As provided by RCW 43.21C.240 and WAC 197-11-158, the lead agency has determined that the requirements for environmental analysis, protection, and mitigation measures have been adequately addressed in the applicable development regulations and comprehensive plan adopted under Chapter 36.70A RCW and in other local, state, or federal laws or rules. Therefore, this proposal is not likely to have a significant adverse impact upon the environment, an Environmental Impact Statement is not required under RCW 43.21C.030(2)(C), and the City of Lacey will not require additional mitigation measures under SEPA. This decision was made after review of an Environmental Checklist and other information on file with the City. This information is available to the public upon request.

☐ There is no comment period for this DNS.

☐ This DNS is issued under 197-11-340(2); the lead agency will not act on this proposal for 14 days. Comments must be submitted by

☒ The comment period, pursuant to WAC 197-11-355, was combined with the Notice of Application comment period, using the Optional DNS Process. The comment period closed on April 24, 2020.

**Assigned Staff Person:** Sarah Schelling, Senior Planner

**Responsible Official:** Rick Walk, AICP, Director of Community & Economic Development

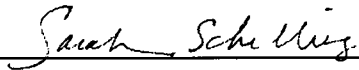
**Address:** 420 College Street SE, Lacey, WA 98503



**Phone:** (360) 491-5642

**Fax:** (360) 438-2669

**Date:** May 26, 2020

**Signature:** 

**Appeal Deadline:** 5:00 p.m. on June 9, 2020

**NOTE:** Pursuant to RCW 43.21.C.075 and Lacey City Code 14.24.170(A), a project denial based upon environmental information, and a conditioned or mitigated Determination of Nonsignificance (DNS) may be appealed by any agency or aggrieved person. Appeals are filed either with the Community Development Department when there is also an underlying governmental action or with the City Council if there is no underlying governmental action. Appeals to the City Council must be filed within fourteen (14) days of the issuance of the written decision (refer to the Lacey City Code for time periods on appeals filed with the Community Development Department).

cc: Department of Ecology

## NOTICE OF PUBLIC HEARING

This is to notify you that the City of Lacey Hearings Examiner will conduct a public hearing on June 17, 2020 and 10:00am, the hearing will be held virtually via Zoom Web Conferencing, and is for consideration of the following item(s):

**Application #19-376:** Request by Puna Clarke of the City of Lacey Public Works Department for approval to construct a 130-foot tall, elevated water tank, capable of storing 1.25 million gallons of water for use by the City of Lacey Water customers. Associated improvements include installation of a site stormwater system and site landscaping. The site address is 4504B Intelco Loop Southeast, Lacey, Washington 98503. The parcel number is 5805000601 and is located in Lacey, Thurston County, Washington

If you want to state your opinion of this project, please register at the below web address to virtually attend the public hearing. Be prepared to speak briefly to the Hearings Examiner. What you say will then become part of the public record. If you cannot attend the virtual public hearing but wish to comment, please write a letter to: Hearings Examiner, 420 College St. SE, Lacey, WA 98503. Your letter will become part of the public record if we receive it before the hearing.

Information on this project, including a study of possible environmental impacts, is available upon request to the Community Development Department at (360) 491-5642, or to the project planner, Sarah Schelling, via email at [sschelli@ci.lacey.wa.us](mailto:sschelli@ci.lacey.wa.us)

If you need special accommodations to participate in this meeting, please call us at (360) 491-5642 by 10:00 a.m. the business day before the hearing. To register to participate in the hearing please go to [https://us02web.zoom.us/webinar/register/WN\\_0upzvQnpQ\\_CIBcOEIfk3tA](https://us02web.zoom.us/webinar/register/WN_0upzvQnpQ_CIBcOEIfk3tA). **You must register prior to the hearing in order to testify.**

### LACEY COMMUNITY DEVELOPMENT DEPARTMENT

Sarah Schelling, Senior Planner

[sschelli@ci.lacey.wa.us](mailto:sschelli@ci.lacey.wa.us)

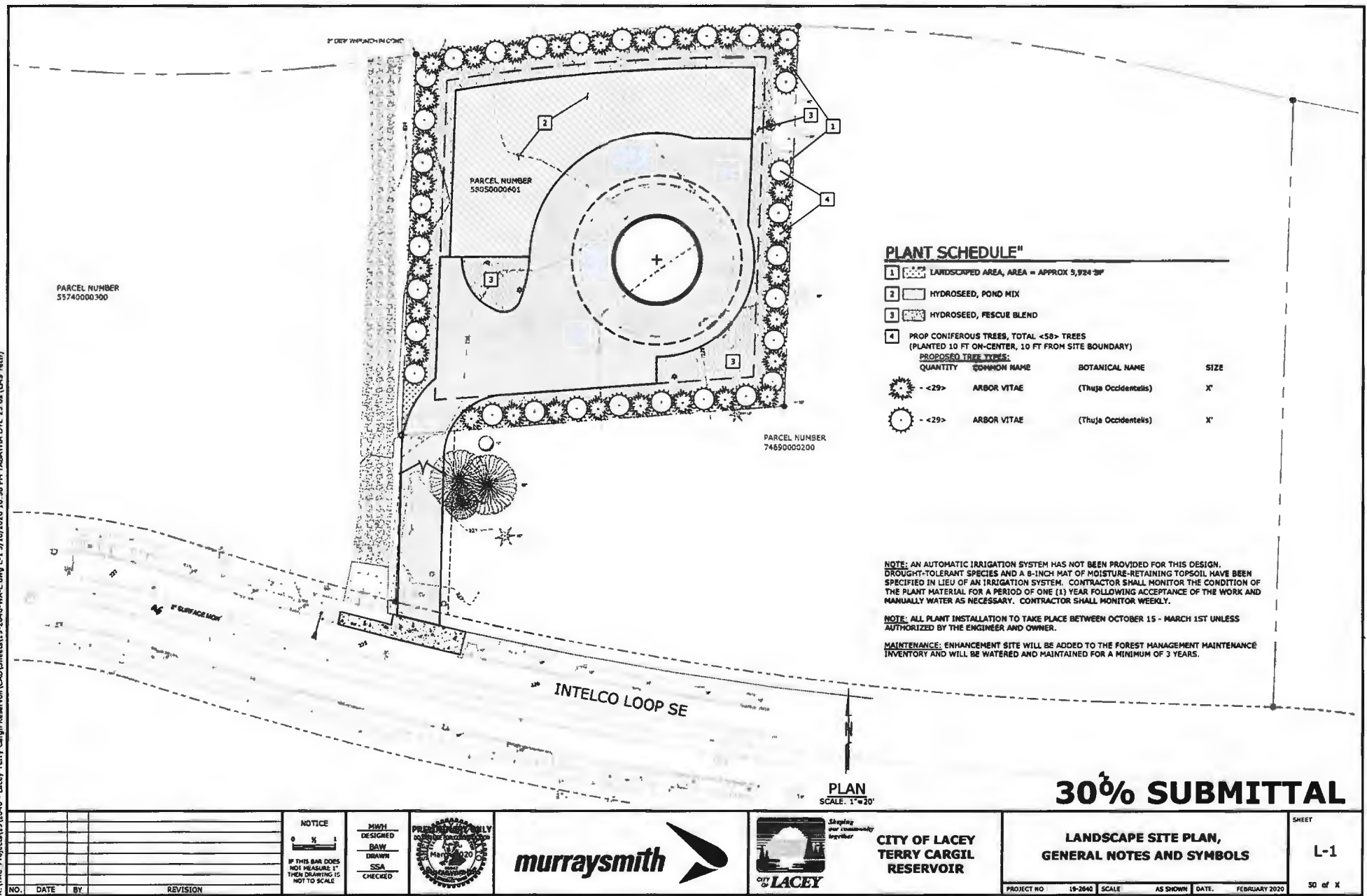
420 College St. SE

Lacey, WA 98503

***DID YOUR NEIGHBORS RECEIVE THIS NOTICE?  
PLEASE SHARE IT WITH THEM!***



K:\TAC Projects\192640 - Lacey Terry Cargil Reservoir\CADD\Sheets\19-2640-WA-L.dwg L-1 3/18/2020 10:56 PM TABATHA DYE 23 0x (LMS Tech)



## Order Confirmation

**Customer**

CITY OF LACEY

**Customer Account**

258711

**Customer Address**

420 COLLEGE ST SE  
LACEY WA 985031238 USA

**Customer Phone**

360-491-3214

**Customer Fax**

360-412-3181

**Sales Rep**

cdaniels@mcclatchy.com

**Payor Customer**

CITY OF LACEY

**Payor Account**

258711

**Payor Address**

420 COLLEGE ST SE  
LACEY WA 985031238 USA

**Payor Phone**

360-491-3214

**Customer EMail**

pedmonds@ci.lacey.wa.us

**Order Taker**

cdaniels@mcclatchy.com

**PO Number**

Legal Notice

**Payment Method**

Invoice

**Blind Box**

**Tear Sheets**

0

**Proofs**

0

**Affidavits**

1

**Net Amount**

\$243.43

**Tax Amount**

\$0.00

**Total Amount**

\$243.43

**Payment Amount**

\$0.00

**Amount Due**

\$243.43

**Ad Order Number**

0004664375

**Order Source**

**Ordered By**

Sarah Schelling

**Special Pricing**

**Invoice Text**

19-376 - Cargil Legal Hearing Notice.DOC

**Promo Type**

**Package Buy**

**Materials**



**Ad Order Information**

|                         |                       |                                 |                                |
|-------------------------|-----------------------|---------------------------------|--------------------------------|
| <b><u>Ad Number</u></b> | <b><u>Ad Type</u></b> | <b><u>Production Method</u></b> | <b><u>Production Notes</u></b> |
| 0004664375-01           | OLY-Legal Liner       | AdBooker                        |                                |

|                                  |                             |                           |                       |
|----------------------------------|-----------------------------|---------------------------|-----------------------|
| <b><u>External Ad Number</u></b> | <b><u>Ad Attributes</u></b> | <b><u>Ad Released</u></b> | <b><u>Pick Up</u></b> |
|                                  |                             | No                        |                       |

|                       |                     |
|-----------------------|---------------------|
| <b><u>Ad Size</u></b> | <b><u>Color</u></b> |
| 1 X 60 li             |                     |

|                       |                          |                         |                             |
|-----------------------|--------------------------|-------------------------|-----------------------------|
| <b><u>Product</u></b> | <b><u>Placement</u></b>  | <b><u>Times Run</u></b> | <b><u>Schedule Cost</u></b> |
| TAC-OL-The Olympian   | 0300 - Legals Classified | 1                       | \$186.90                    |

|                                         |                                |
|-----------------------------------------|--------------------------------|
| <b><u>Run Schedule Invoice Text</u></b> | <b><u>Position</u></b>         |
| #6796 NOTICE OF PUBLIC HEARING Notice i | 0301 - Legals & Public Notices |

**Run Dates**  
06/04/2020

|                            |                          |                         |                             |
|----------------------------|--------------------------|-------------------------|-----------------------------|
| <b><u>Product</u></b>      | <b><u>Placement</u></b>  | <b><u>Times Run</u></b> | <b><u>Schedule Cost</u></b> |
| TAC-upsell.theolympian.com | 0300 - Legals Classified | 1                       | \$56.53                     |

|                                         |                                |
|-----------------------------------------|--------------------------------|
| <b><u>Run Schedule Invoice Text</u></b> | <b><u>Position</u></b>         |
| #6796 NOTICE OF PUBLIC HEARING Notice i | 0301 - Legals & Public Notices |

**Run Dates**  
06/04/2020

## NOTICE OF PUBLIC HEARING

Notice is hereby given that the City of Lacey Hearings Examiner will conduct a public hearing on June 17, 2020 at 10:00am, the hearing will be held virtually via Zoom Web Conferencing, and is for consideration of the following item(s):

Application #19-376: Request by Puna Clarke of the City of Lacey Public Works Department for approval to construct a 130-foot tall, elevated water tank, capable of storing 1.25 million gallons of water for use by the City of Lacey Water customers. Associated improvements include installation of a site stormwater system and site landscaping. The site address is 45048 Intelco Loop Southeast, Lacey, Washington 98503. The parcel number is 5805000601 and is located in Lacey, Thurston County, Washington.

The purpose of the public hearing is to give citizens an opportunity to testify to the Hearings Examiner regarding the above proposal. Any interested citizen may testify at the virtual hearing by registering to testify ahead of the hearing at the following web address:

[https://us02web.zoom.us/join/zoom/register/WN\\_0upzvQnpQ\\_CIBc0EIfk3tA](https://us02web.zoom.us/join/zoom/register/WN_0upzvQnpQ_CIBc0EIfk3tA).

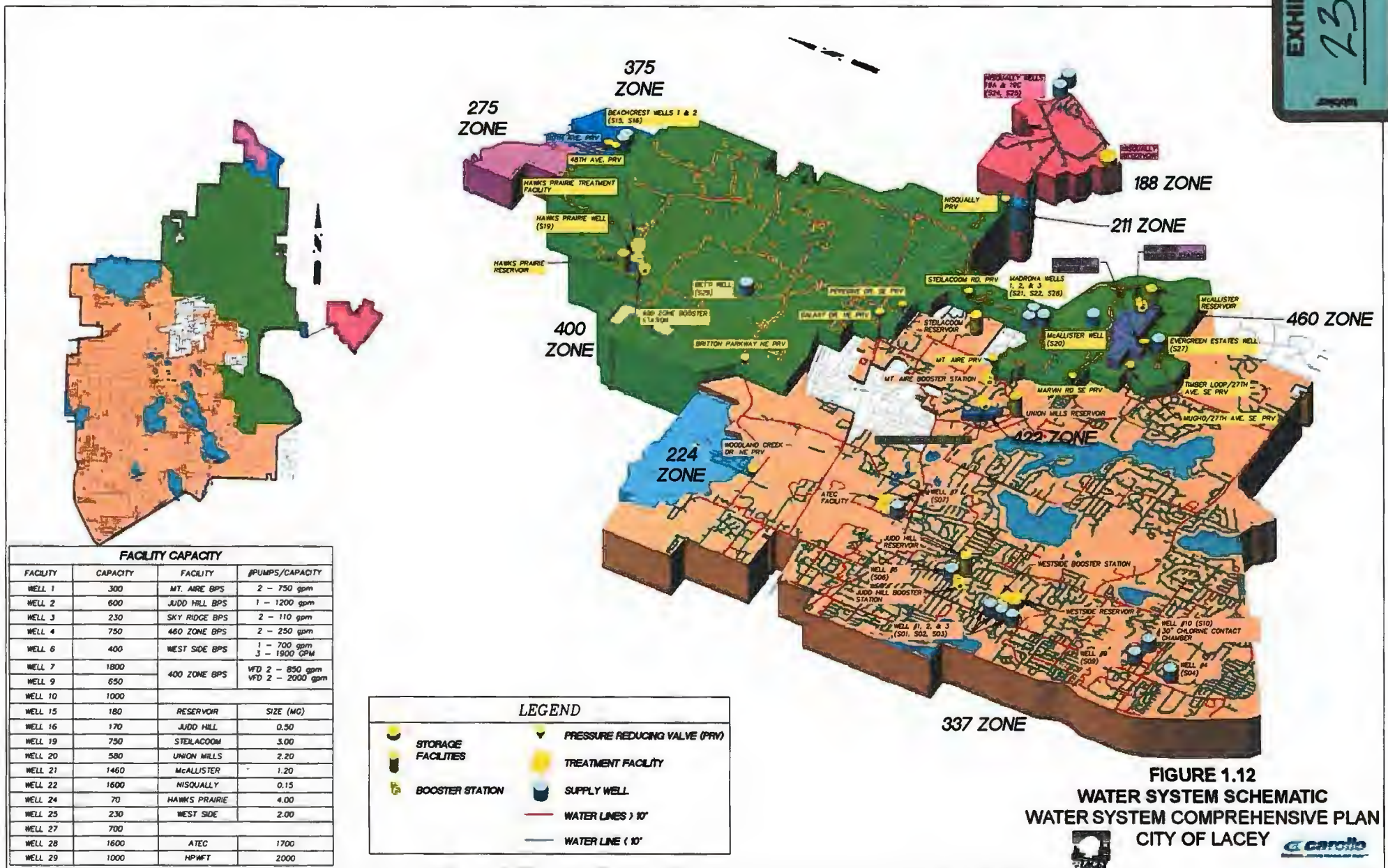
Anyone who cannot attend the virtual meeting may give testimony in a letter addressed to: Hearings Examiner, 420 College St. SE, Lacey, WA 98503. If your letter is received before the hearing, it will become part of the public record. Prior to the hearing, information regarding the proposal, including an environmental impact analysis, may be obtained by contacting Sarah Schelling, Senior Planner, at the City of Lacey Community and Economic Development Department by phone at (360) 491-5642 or email at [sschelli@ci.lacey.wa.us](mailto:sschelli@ci.lacey.wa.us).

If you need special accommodations to participate in this meeting, please call us at (360) 491-5642 by 10:00 a.m. the day before the meeting.

LACEY COMMUNITY DEVELOPMENT  
DEPARTMENT

Sarah Schelling, Senior Planner

Published: June 4, 2020



## CERTIFICATION OF PUBLIC NOTICE

I, Sarah Schelling, Senior Planner, for the City of Lacey hereby certify that public notice for City of Lacey Project #19-376, Terry Cargil Reservoir Conditional Use Permit, was given as follows:

## APPLICATION

**Notice of Application Published:** April 13, 2020  
**Notice of Application Posted:** April 9, 2020  
**Posting Locations:** 4504B Intelco Loop SE  
**Environmental Determination Published:** April 13, 2020

HEARING

|                                                  |                       |
|--------------------------------------------------|-----------------------|
| Notice of Public Hearing Published:              | June 4, 2020          |
| Notice of Public Hearing Posted:                 | June 8, 2020          |
| Posting Locations:                               | 4504B Intelco Loop SE |
| Notice of Public Hearing Mailed to Mailing List: | June 4, 2020          |

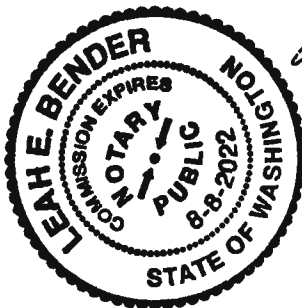
**The above is an accurate accounting of the public notice provided for the project.**

  
Sarah Schelling, Senior Planner

Date June 8, 2020

STATE OF WASHINGTON) ss.  
County of Thurston )

This is to certify that on June 8, 2020 before the undersigned Notary Public, personally appeared Sarah Schelling Planner for the City of Lacey. IN WITNESS WHEREOF, I have hereunto set my hand and affixed my official seal the day and year first above written.



*Lacey W. P.*  
Notary Public in and for the State of Washington,  
residing at: Lacey WA  
My Commission Expires: 08-08-2022



Irina Souders  
4249 Roxanna Loop SE  
Lacey, WA 98503  
The Pointe at Lacey HOA

June 14, 2020

Sarah Schelling  
Senior Planner  
Lacey Community Development Department  
420 College Street SE, Lacey, WA 98503

RE: Water tank at 4504B Intelco Loop SE, Lacey

Dear Sarah Schelling and Lacey Community Development Department,

The tower is planned to be 130 feet tall with a capacity of 1.25 million gallons of water. I as a homeowner and resident have some concerns:

1. Potential harm to the residents and damage to the properties of The Pointe at Lacey, including potential flooding, in case of leak or catastrophic failure of this tank.
2. Will the City of Lacey carry liability insurance that covers the mentioned above damages, flood or harm?
3. Noise and vibration from onsite pumps and generators. They commonly run at night due to less draw on the electric system.
4. Will this tower be on the same electric network feeder as our community?
5. Proximity of the tower to the houses and the engineered fall zone.
6. Is there the possibility of the water authority expanding capacity on a site in the future? Meaning a second tank or bigger one.
7. Most water towers are also used to mount mobile phone network antennas. Is this also planned?
8. Loss in our real estate property values. Conventional wisdom would say there will be a negative market reaction. A water tower at this close distance from our properties should be disclosed in the appraisal report as a potential hazard.

My contacts are: address 4249 Roxanna Loop SE, Lacey, WA 98503, email [isouders@outlook.com](mailto:isouders@outlook.com), phone # 360-951-1219.

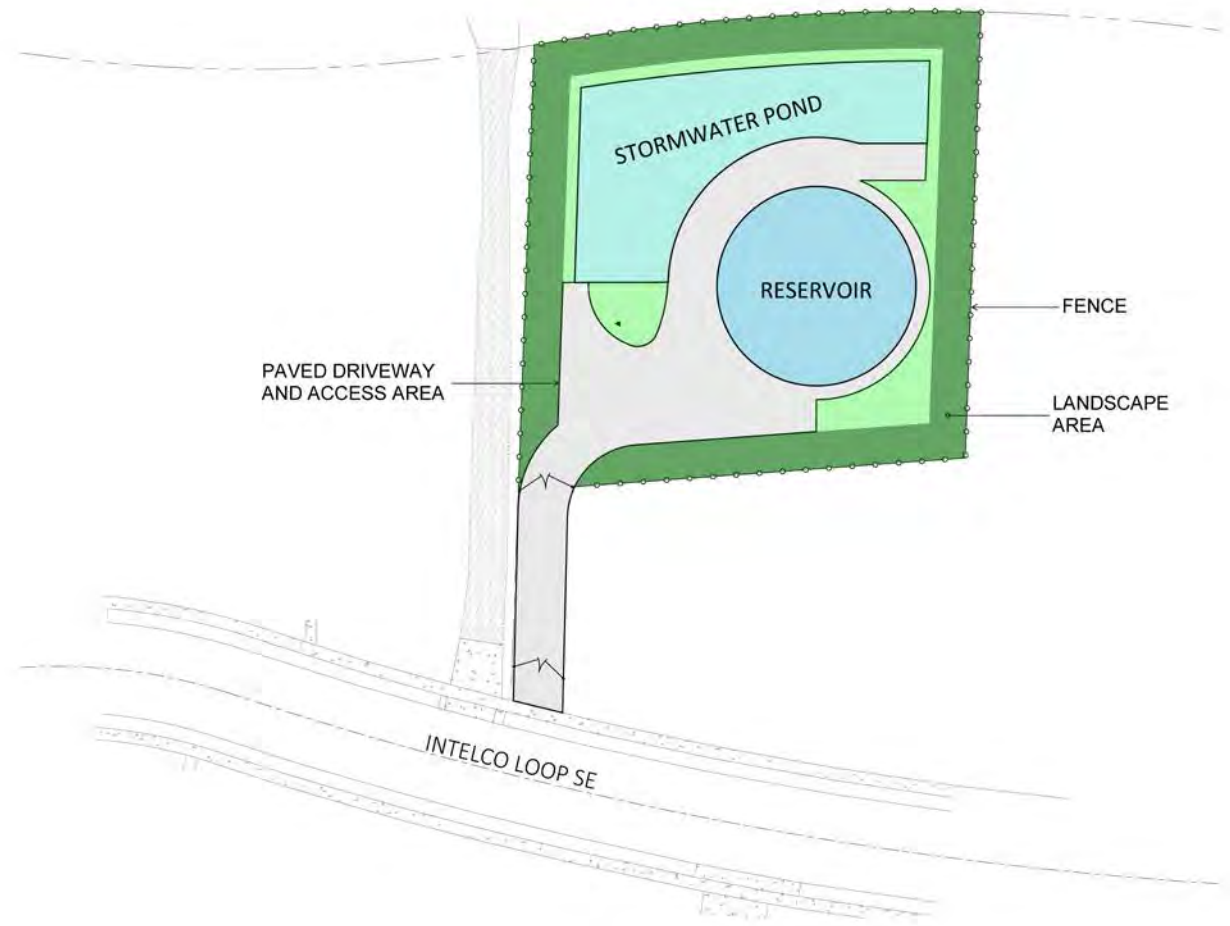
Sincerely, Irina Souders

# Background

- › Add water storage and provide consistent water pressure
- › City purchased property specifically for placement of reservoir

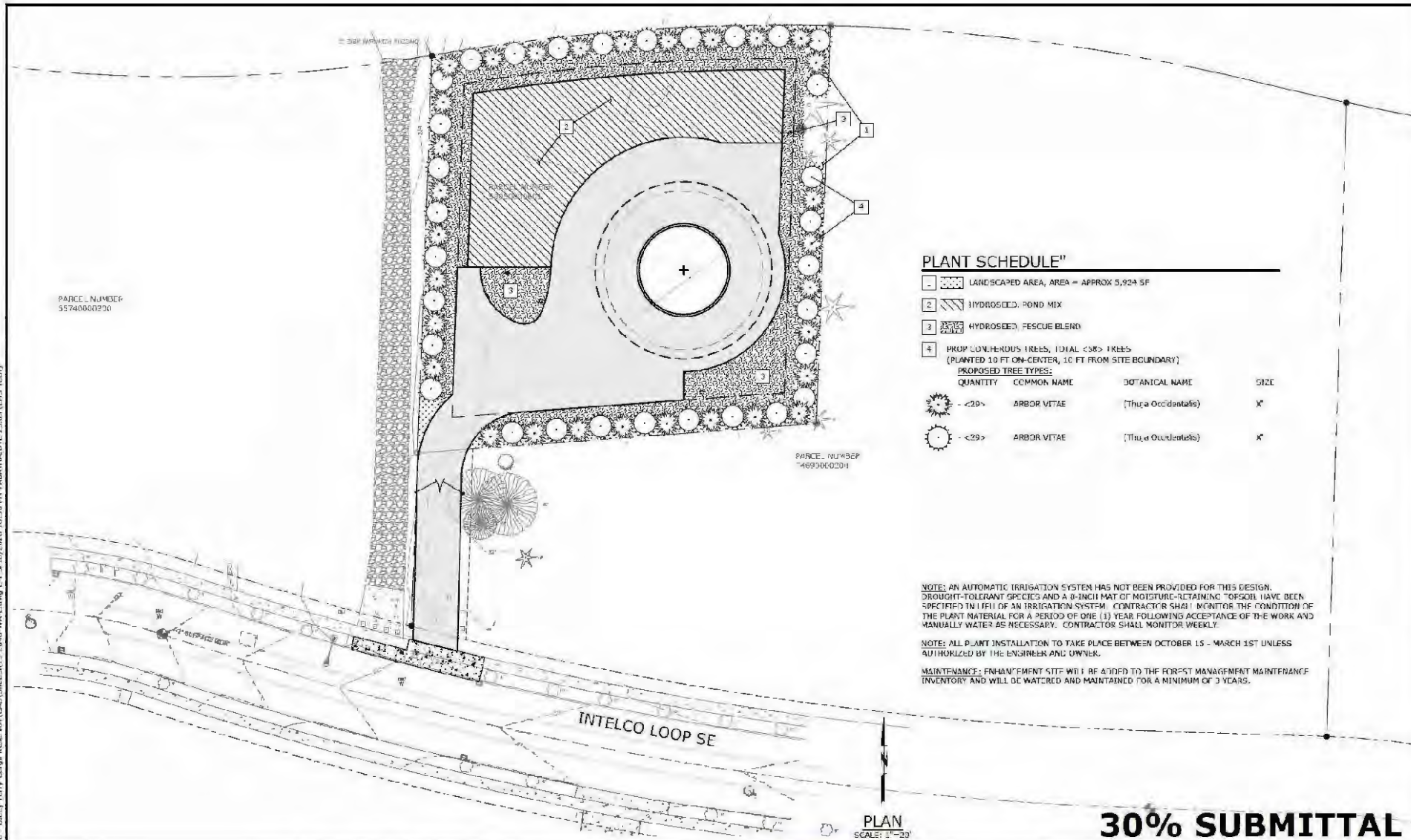


# Site Layout





K:\VAC Projects\102640 - Lacey Terry Cargil Reservoir (CAD) Sheet\9-16-20-WAL.dwg L-1 3/15/2020 10:56 PM TABATHA.DYE 2.50x (LMS Tech)



30% SUBMITTAL

|     |      |    |          |
|-----|------|----|----------|
| NO. | DATE | BY | REVISION |
|     |      |    |          |
|     |      |    |          |
|     |      |    |          |

NOTICE

IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO SCALE

NWH DESIGNED  
BAW DRAWN  
SSA CHECKED

PREPARED BY  
DATE  
3/15/2020

**murraysmith**

Shaping our community together  
**CITY OF LACEY**

**CITY OF LACEY  
TERRY CARGIL  
RESERVOIR**

**LANDSCAPE SITE PLAN,  
GENERAL NOTES AND SYMBOLS**

PROJECT NO.: 19-0040 SCALE: AS SHOWN DATE: FEBRUARY 2020

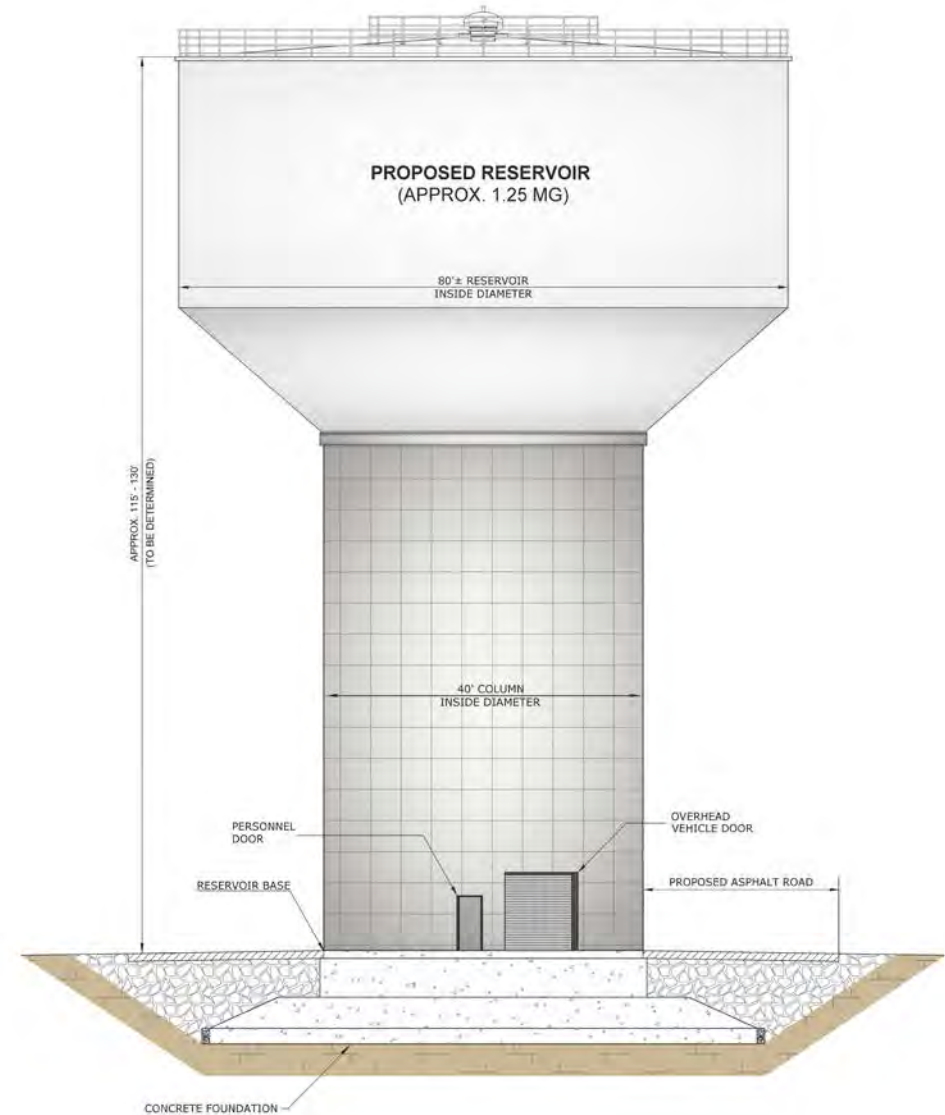
SHEET  
**L-1**  
50 of 5

# Project Design

- › 1.25 million gallons (MG) Composite Elevated Tank
- › Designed to meet all applicable seismic codes for structural safety



# Reservoir



# Views



Before



After

# Views



Before

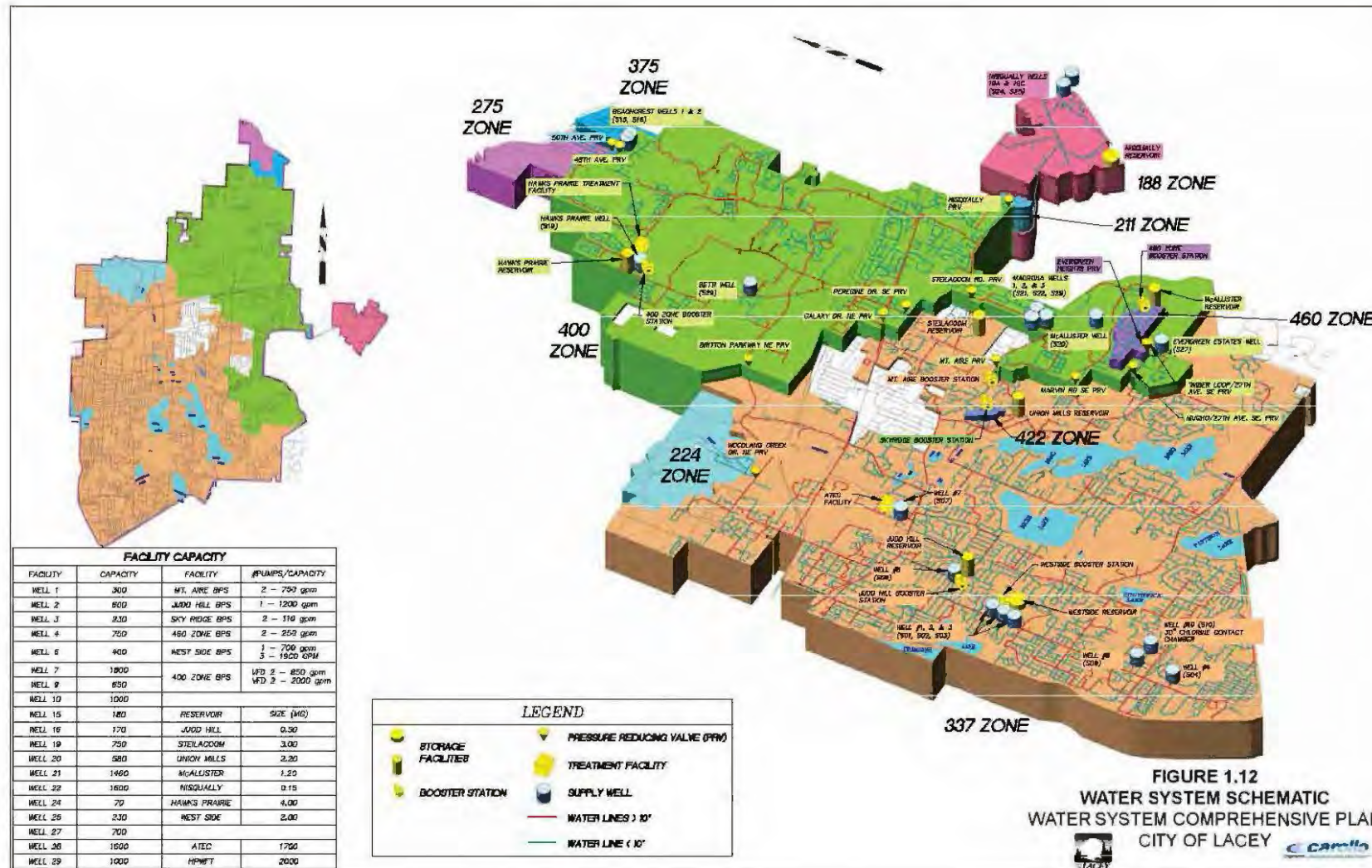


After

# Renderings



After





## LACEY CITY COUNCIL MEETING

July 23, 2020

**SUBJECT:** COVID-19 CARES Act Economic Assistance Program

---

**RECOMMENDATION:** Approve the Distribution of CARES Act Recovery Funds

---

**STAFF CONTACT:** Scott Spence, City Manager *TS for*  
Rick Walk, Community & Economic Development Director *RW*  
George Smith, Economic Development Coordinator *GES*

**ORIGINATED BY:** Community & Economic Development Department

**ATTACHMENTS:** 1. [PPE PowerPoint Presentation](#)  
2. [County Grant Program Criteria](#)

**FISCAL NOTE:** 100% of funding is reimbursable through Federal CARES Act grant, so though there will be no negative fiscal impact on City operations or funds, there will be a fiscal benefit to City residents and businesses.

**PRIOR REVIEW:** Discussions at Council Meetings: May 28, 2020, June 11, 2020, and Worksession June 18, 2020

---

**BACKGROUND:** On June 18, 2020, Council approved the use of the remaining \$408,100 in CARES Act funding to be divided equally between economic recovery and social services.

### Economic Recovery

CARES Act funding will be used for three elements of economic recovery: acquisition of personal protection equipment (PPE), re-opening grants, and financial assistance to childcare providers to enable parents with children to return to work.

PPE — as part of the Thurston Strong partnership between the City of Lacey, Thurston Economic Development Council (EDC), Thurston County, and the cities of Olympia and Tumwater, more than \$100,000 of PPE has been ordered and is being distributed to local businesses. This is to ensure that reopening businesses have an adequate initial supply of PPE to operate safely while each business makes arrangements to source their own PPE through vendors. To date, 125 City of Lacey businesses out of 725 total businesses have received PPE supplies. Based on data provided, the City's share of PPE distributed thus far is approximately 20%.

Therefore staff recommend that the agreement with the EDC be funded at \$20,000 for PPE.

Reopening Grants — Thurston County has allocated \$1,500,000 of their CARES Act funding to provide grants to assist small local businesses everywhere in Thurston County with reopening expenses. Thurston Strong's goal is to reach as many businesses as possible and with that in mind set the maximum grant award at \$1,500. The reopening grant is small but is intended to provide enough money to off-set the cost of purchasing supplies for retrofitting tenant spaces with protective barriers, signage, and other sanitary best practices. These grants are not intended to supplement or sustain the cost of business operations. Additionally, businesses that were recipients of the State grant, or a grant under the City's previous grant program are not initially eligible. A copy of the County Grant Program is attached to this report.

There has been discussion that cities may elect to provide a supplemental grant under the program, perhaps with some modifications. This could be in the form of a match amount for Lacey businesses of 100% for a total of \$3,000 as an example. If the Council decides to supplement the Thurston Strong grant for Lacey Businesses, the City could set aside \$75,000 (50 businesses) for this program. Depending on the demand for the grants by Lacey businesses, any un-used funds can be directed to support day care facilities as discussed below.

Staff recommend that the agreement with the EDC be funded with \$75,000 for supplemental grants, with similar criteria to the County program, but without the initial exclusion of previous recipients of grants from the City.

Childcare — The availability of affordable quality childcare for working parents in this region was already challenging before the COVID-19 pandemic. Based on both anecdotal local information, as well as national trends, as many as 25% of childcare providers may never reopen. The need for social distancing will reduce the number of children for whom care can be provided in the same space, further reducing childcare capacity. Disruptions in school schedules add further complications, making it increasingly difficult for working parents to return to their jobs or businesses.

A study is underway, and should be available soon to help inform the best way to provide financial support to enable some closed childcare providers to reopen. Therefore, staff recommend that the remaining \$109,050 be held in reserve for now to be used for financial support to local childcare providers to enable working parents to return to work.

## **Social Services**

The City Council allocated \$204,050 to support social service providers responding to the impacts of COVID-19 based on information and request submitted by the United Way of Thurston County. There are many worthy and critical needs in the community that far exceed the funds available. Identified needs include, but are not limited to, rent assistance, utility payment

assistance, essential/basic needs support, supporting the distribution of food, and providing safe shelter. Those community members needing assistance cover a broad cross-section of the community from the elderly who are isolated in their homes, homeless and at-risk school age youth, low-income households of all ages, and more.

The United Way of Thurston County has identified and is tracking these needs as well as coordinating funding to the direct services providers. Using the United Way to distribute the funds will not only make sure the funds get to the direct and immediate needs but also provide a reporting mechanism to ensure that the funds are expended for COVID-related reasons and qualify for reimbursement from the Coronavirus relief funds.

The question is how best to direct City of Lacey funds to fill gaps in other aid efforts for the impacts in the Lacey community. Since the Federal and State Governments continue to provide funding support for unemployment, rental and utility payment assistance, City of Lacey funds could be leverage to fill gaps if steered toward the provision of food and services to the most vulnerable members of the Lacey community; the elderly and youth. Staff recommends the following funding allocation:

United Way of Thurston County COVID-19 Relief - \$204,050

The United Way of Thurston County will direct the funds to the most critical needs within the City of Lacey among the following services: Senior Support Services, Meals on Wheels, Thurston County Food Bank (Lacey satellite distribution), and Homeless Backpacks.

---

#### **ADVANTAGES:**

1. Mitigates the economic impact to Lacey citizens and businesses
2. Makes effective use of federal resources provided through the CARES Act
3. Leverages programs already in place

#### **DISADVANTAGES:**

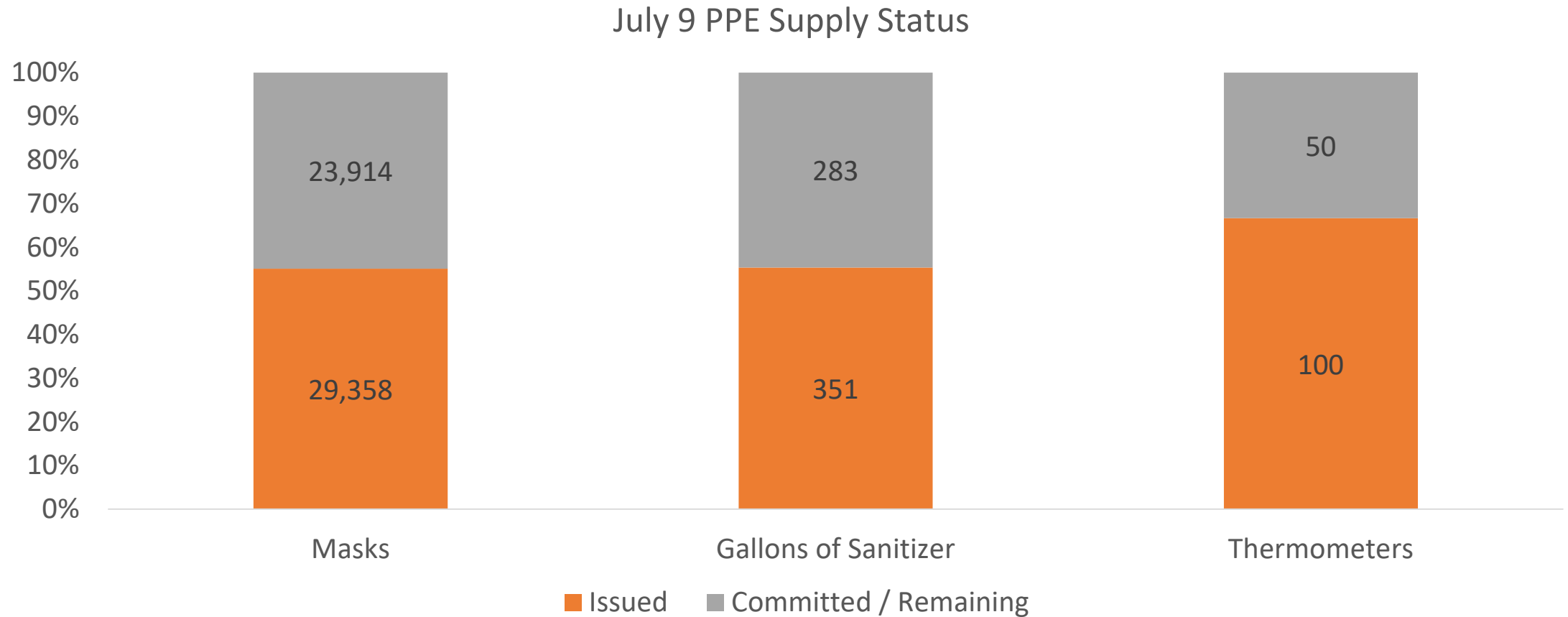
1. Limited resources make it impossible to provide all of the assistance that is truly needed

# PPE Status Update

July 9, 2020

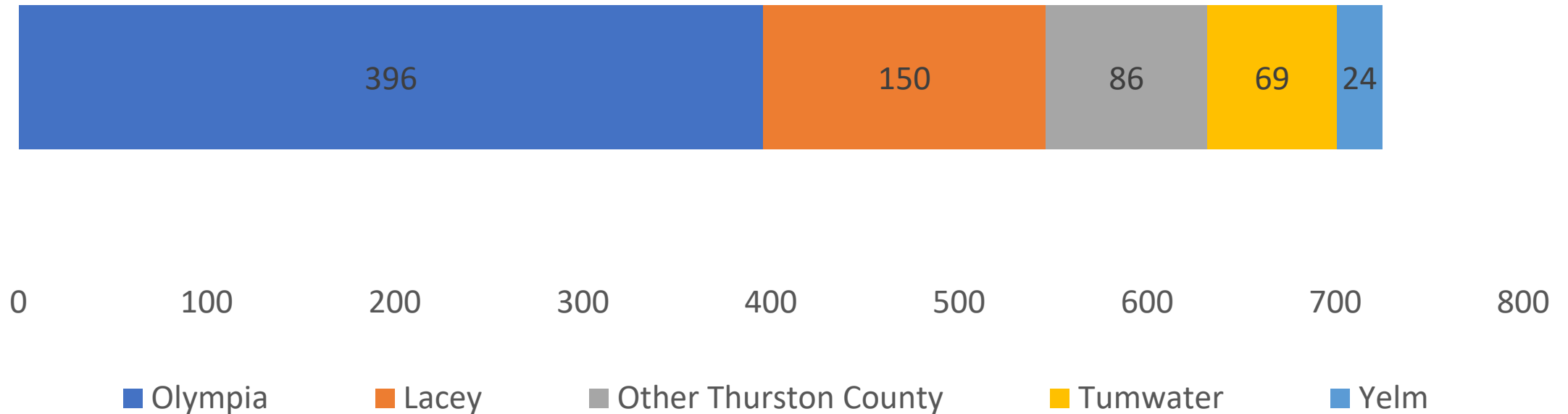
Thurston Strong

# We have adequate supplies for next 2 weeks



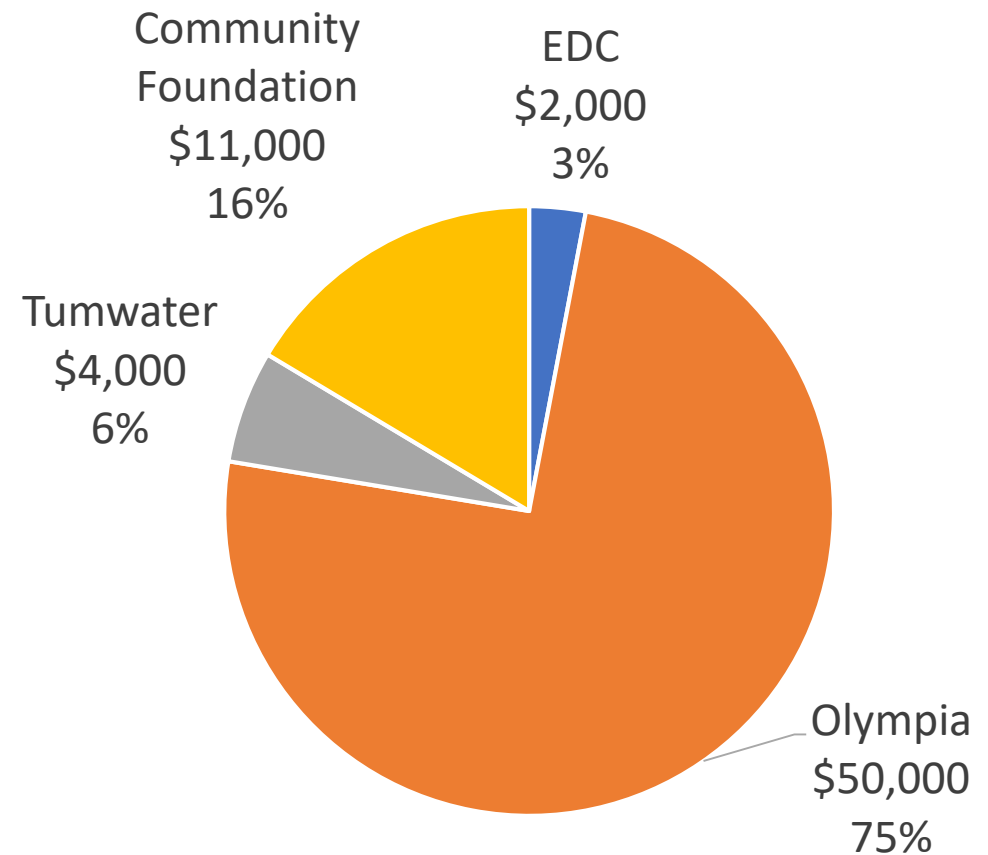
# Over half to Olympia entities, but...

Origin of PPE Request - 725 Businesses/Institutions

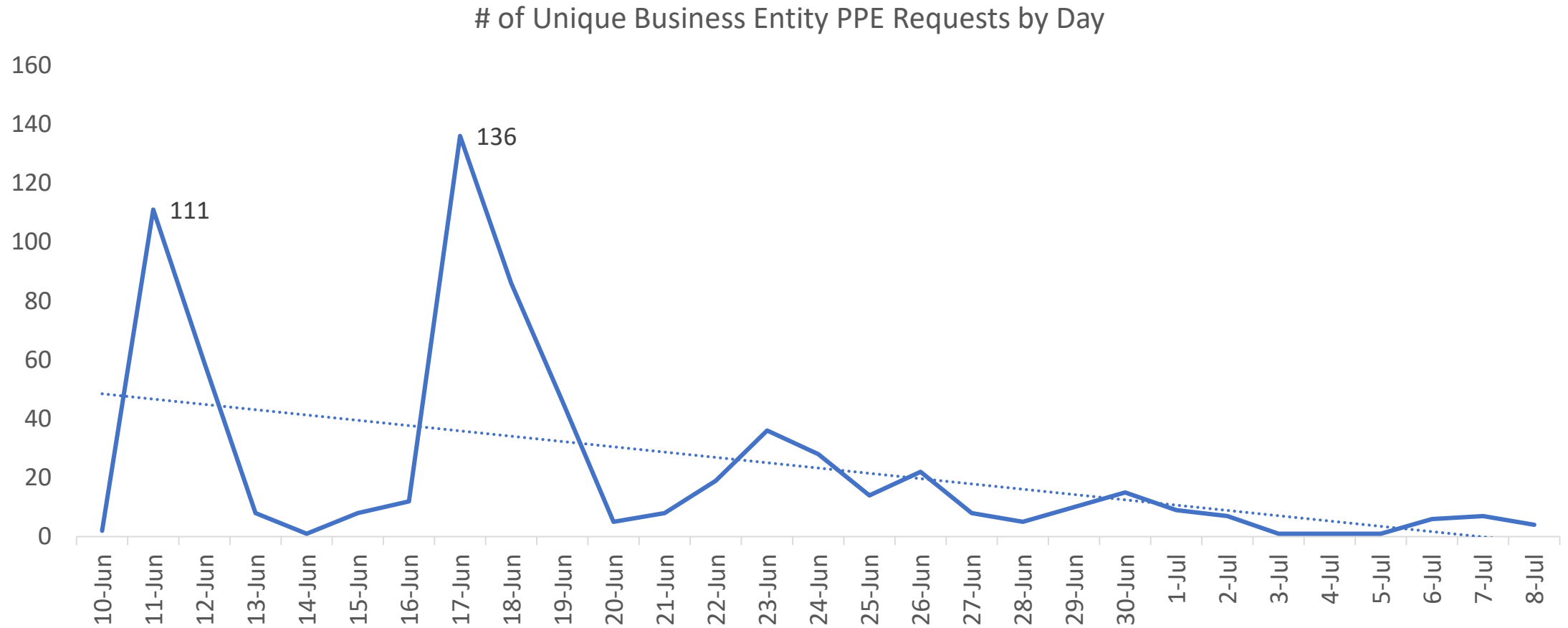


# Olympia is covering 75% of PPE cost

PPE Purchases by Entity (July 9, 2020)



# Slowed down...but could shoot back up



# Other Facts of Note

- On average, each batch of 10k masks costs \$5,000
- On average, each batch of 100 gal. sanitizer costs \$3,500
- 675 entities have requested PPE serving 725 unique locations
- No “refills” have been offered yet
- All \$ dedicated to PPE (so far) has now been spent (\$67k)
- County EM has gowns and gloves if interest in promoting or teaming
- Questions:
  - Do we want to promote again (cases rising, refills, etc.)?
  - Pay with CARES allocation, donations, individual entity contributions?

# Thurston Strong

## COVID-19 Micro-Business Standup Grant Program

### Instructions

---

#### OVERVIEW

The **Thurston Strong Micro-Business Standup Grant** is offered as a helping hand to small businesses attempting to reopen or remain open under Governor Inslee's Safe Start program. There is simply not enough funding available to "save" every business impacted by COVID-19. On the other hand, we believe small cash infusions to many employers can help small businesses gain traction as they take on the task of starting over or finding ways to operate in a new environment.

All Thurston County businesses meeting eligibility requirements will be considered. The Thurston Economic Development Council will administer the program on behalf of Thurston Strong partners. The majority of funding support has been provided by local jurisdictions (Thurston County, Cities of Lacey, Olympia and Tumwater) through a dedicated portion of their individual CARES Act allocations. **For technical assistance, contact our Business Hotline at 888-821-6652.**

#### PURPOSE

Expedite the safe and successful reopening of for-profit microbusinesses impacted by COVID-19

#### ELIGIBLE RECIPIENTS

Businesses with 25 or fewer employees (or FTE equivalent) that serve the public and require additional capital to safely reopen or fully reopen. Eligible businesses must have a physical location in Thurston County and a registered Unified Business Identification (UBI) Number.

Businesses owned by an employee, manager, officer, or elected official of any of the participating jurisdictions, or the Thurston Economic Development Council are ineligible. Businesses that have received funding through the City of Lacey or Working Washington Grant will only be considered after other eligible businesses have been awarded funds, if additional funding remains to be awarded.

Business must be SBA-eligible recipients. Operations that are NOT SBA-eligible include:

- Consumer and marketing cooperatives
- Dealers of rare coins and stamps
- Gambling
- Government-owned organizations
- Illegal firms
- Lending firms and loan packaging firms
- Multi-sales distribution
- Nonprofits
- Pyramid or multi-level marketing schemes
- Real estate investment firms
- Religious institutions
- Speculation-based businesses

#### PRIORITY CONSIDERATION:

Should requests outpace available funding, priority funding will be given to:

- Independently-owned retail, eating and drinking establishments, and related businesses
- Personal care industries (e.g. medical, dental, daycare, hair and nail salons, pet care, etc.)
- Childcare providers

## ELIGIBLE AMOUNT

Up to \$1,500 per business establishment

## ELIGIBLE EXPENSES

- Rent or mortgage support
- Location cleaning
- Safety supplies
- Inventory purchases
- Physical site reconfiguration
- Business licensing or other related reconfiguration fees or expenses
- Employee assistance (e.g. transportation, gear)
- Other (other uses may be considered if compelling)

\*Funding may NOT be used for expenses that have been or will be reimbursed by other federal funding programs (e.g. Economic Disaster Injury Loan or Payroll Protection Program)\_

## INELIGIBLE EXPENSES

- Owner or employee wages
- Anything not associated with reopening or adapting a business that existed prior to March 1, 2020

## REPORTING REQUIREMENTS

None. But please be sure to let us know about any success stories so we can start sharing some good news with our broader community.

## APPLICATION TIMELINE

Applications received and reviewed on a rolling basis from inception until funding has been exhausted. Successful recipients will be notified by email or telephone as soon as possible.

## APPEAL PROCESS

The following table outlines the appeal process under different scenarios where a business has been selected for a funding award.

| Reason for Rejection                                                                                                                  | Appeal Process or Remedy                                                                                                                                                                                                         |
|---------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <ul style="list-style-type: none"><li>• Declined due to business being of an ineligible type for SBA funding</li></ul>                | Applicant may seek reconsideration by providing proof that business is engaged in an eligible type of business. Reconsideration to be made by EDC.                                                                               |
| <ul style="list-style-type: none"><li>• Declined due to incomplete submission of necessary documents</li></ul>                        | Applicant can seek reconsideration by providing required complete documents. If documents are not available, applicant may work with EDC to determine if alternative documents are available. Reconsideration to be made by EDC. |
| <ul style="list-style-type: none"><li>• Declined due to EDC's evaluation the grant request does not meet the grant criteria</li></ul> | Applicant may seek reconsideration by the EDC by providing proof that business does meet the grant criteria.                                                                                                                     |
| <ul style="list-style-type: none"><li>• Declined due to lack of available grant funding</li></ul>                                     | Applicant will be placed on a wait list pending the arrival of additional recovery funding (not guaranteed).                                                                                                                     |

## Thurston Strong Micro-Business Standup Grant Application

---

- Name of business: \_\_\_\_
- Email: \_\_\_\_
- Telephone: \_\_\_\_
- Physical Address: \_\_\_\_
- UBI#: \_\_\_\_
  
- Number of FTE employees: \_\_\_\_
  
- Type of business:
  - ☐ Retail
  - ☐ Food/Beverage
  - ☐ Office/Professional Services
  - ☐ Entertainment
  - ☐ Child Care
  - ☐ Health Care
  - ☐ Construction
  - ☐ Distribution/Logistics
  - ☐ Manufacturing
  - ☐ Other: \_\_\_\_
  
- Physical location: (select all that apply, must be physically located in Thurston County)
  - ☐ Lacey
  - ☐ Olympia
  - ☐ Tumwater
  - ☐ Other Thurston County
  
- Proposed use of grant funding: (must select one or more)
  - ☐ Rent or mortgage support
  - ☐ Location cleaning
  - ☐ Safety supplies
  - ☐ Inventory purchases
  - ☐ Physical site reconfiguration
  - ☐ Business licensing or other related reconfiguration fees or expenses
  - ☐ Employee assistance (e.g. transportation, gear)
  - ☐ Other (other uses may be considered if compelling and not an expense that has or will be paid for using other federal funding – e.g. PPP or EIDL programs): \_\_\_\_\_
  
- Please check the appropriate box if you've received either of the following:
  - ☐ City of Lacey Business Grant
  - ☐ Working Washington Grant
  
- Amount of grant funding you are requesting: (\*receipts required)
  - ☐ \$1,500.00
  - ☐ Amount less than \$1,500.00
    - Enter amount here: \_\_\_\_\_
  
- Please certify that your grant funds will be used to mitigate impacts or offset costs incurred as a result of the COVID-19 pandemic and your associated business recovery efforts. Thank you!
  - ☐ Click here to certify

**\*Please note, it may take 2-4 weeks to process grant applications**



## CITY COUNCIL MEETING

July 23, 2020

**SUBJECT:** Amendment No. 2 to existing Interagency Agreement with WA Department of Enterprise Services for Project Management and Construction Services Pertaining to the Veteran Services Hub Renovation Project

---

**RECOMMENDATIONS:**

1. Authorize the City Manager to sign Amendment No. 2 to Interagency Agreement Amendment, No. K6450, to proceed with construction of the Veteran Services Hub Renovation Project.
2. Authorize the City Manager to sign the proposed Interagency Agreement Funding Approval Form with WA Department of Enterprise Services to facilitate the proposed construction phase of the project.

---

**STAFF CONTACT:** Scott Spence, City Manager *TS FOR*  
Stephen Kirkman, Public Affairs Manager *SK*  
Ashley Smith, Capital Projects Manager *AS*

**ORIGINATED BY:** Public Affairs Office

**ATTACHMENTS:**

1. [Present Interagency Agreement, K6450, with Washington State Department of Enterprise Services \(DES\) Energy Program, executed 3/12/2020](#)
2. [Proposed Amended No. 2 Interagency Agreement, K6450, between the City of Lacey and Department of Enterprise Services, DES Project 2020-524.](#)
3. [Proposed Funding Approval Form for Amendment No. 2](#)
4. [ESCO Energy Services Proposal, 7/1/2020](#)

**FISCAL NOTE:** The proposed agreement will not impact city fiscal operating levels. Funding for the identified improvements will be provided via a 2019-2021 Washington State Capital Budget appropriation of \$2,000,000, and a 2020 U.S. Department of Veteran Affairs appropriation of \$531,750. The project total is \$2,489,200.

**PRIOR REVIEW:** City Council approved a DES Interagency Agreement governing design and engineering work for this project in December 2019.

---

## **BACKGROUND:**

Performance-based contracts for energy equipment and water conservation, outlined in 39.35A RCW, provide options for local governments to finance capital upgrades by applying the savings realized from reduced energy and resource consumption. This allows municipalities to initiate upgrades that otherwise could not be completed due to lack of funds.

To participate in the performance contracting program through the State of Washington, the City entered into an Interagency Agreement with the Department of General Administration (GA), now known as Department of Enterprise Services, to provide project management services.

In 2019, the City of Lacey partnered with Department of Enterprise Services (DES) to complete an Investment Grade Audit (IGA) to identify Energy Conservation Measures (ECM) and Facility Improvement Measures (FIM) to update aging or underperforming infrastructure. The Energy Savings Company (ESCO) selected by DES, Sunset Air, completed an Energy Savings Proposal detailing the upgrades and resulting energy savings.

The Department of Enterprise Services has managed the work of Sunset Air on behalf of the City through the existing Interagency Agreement to date. An amended Interagency Agreement, approved by City Council on December 5, 2019, as part of the building rehabilitation to the Lacey Veterans Services Hub, will also serve as the agreement to complete this work.

In June 2019, the City of Lacey was awarded \$2 million under the 2019-2021 State Capital Budget to undertake improvements to the Lacey Veterans Services Hub facility. Additionally, the federal Department of Veterans Affairs has allocated up to \$531,750 for interior improvements to approximately 2,400 square-feet in the facility that will serve as a federal Vet Center Outstation.

Design and engineering work for the project, totaling \$123,560, performed under a DES interagency agreement approved by Council in December 2019 is nearing completion. The proposed amendment and funding approval form will provide \$1,891,507 for project construction activities, \$410,889 for professional services, \$62,500 for DES management services, and \$744 for energy measurement and verification. Together, the total value of the agreements with DES is \$2,489,200.

### **The following is a summary of energy conservation projects identified by the audit:**

Project work in this phase will include replacement of the building's roof, siding, windows, and insulation; replacement of HVAC systems; installation of energy efficient lighting; installation of energy efficient plumbing fixtures; ADA accessibility improvements; and office layout and workspace improvements. Construction is anticipated to be complete in early January, 2021.

This project will improve energy efficiency, and is expected to increase the building's useful lifespan by an estimated 20 or more years.

Because a significant portion of the planned improvements are energy-related, the City has received approval to utilize its interagency agreement with DES for Project Management and Construction Services. The DES Energy Program contracts with qualified Energy Service Companies (ESCO) to deliver services; Sunset Air will serve as the ESCO for this project.

Design and engineering work for the project is complete, with start of construction anticipated in August 2020. This will require a temporary closure of the facility.

---

#### **ADVANTAGES:**

1. Energy conservation is in alignment with the City's carbon reduction strategy.
2. Utilizing the Washington Department of Enterprise Services for project management and construction services will provide significant efficiencies to the project schedule.
3. Management and construction services provided under the agreement will supplement City resources allocated to the project.

#### **DISADVANTAGES:**

1. There are no significant disadvantages related to this proposal.

|                                                                                                                                      |                              |                  |
|--------------------------------------------------------------------------------------------------------------------------------------|------------------------------|------------------|
| <b>State of Washington</b><br><b>ENERGY PROGRAM</b><br>Department of Enterprise Services<br>P.O. Box 41476<br>Olympia, WA 98504-1476 | <b>INTERAGENCY AGREEMENT</b> |                  |
|                                                                                                                                      | IAA No.:                     | K6450            |
| <b>CITY OF LACEY</b><br>420 College St E<br>Lacey, WA 98503                                                                          | Date:                        | January 29, 2020 |

**INTERAGENCY AGREEMENT**  
**BETWEEN**  
**CITY OF LACEY**  
**AND**  
**WASHINGTON STATE DEPARTMENT OF ENTERPRISE SERVICES**

Pursuant to RCW chapter 39.34 and RCW chapter 39.35C, this *Interagency Agreement (Agreement)* is made and entered into by and between the State of Washington acting by and through the Energy Program of the Department of Enterprise Services, a Washington State governmental agency ("Enterprise Services") and City of Lacey, a Washington State governmental agency ("Client Agency") and is dated and effective as of the date of the last signature.

**RECITALS**

- A. Enterprise Services, through its Energy Program ("Energy Program"), helps owners of public facilities reduce energy and operational costs. The Energy Program is a national leader in developing and managing energy savings performance contracts that help reduce energy and operational costs in publicly-owned facilities.
- B. Upgrading to energy efficient infrastructure helps reduce long-term operations and maintenance costs. This allows owners to be better financial stewards while achieving their mission, so that Washington is a better place to live, learn, and work.
- C. Acting as the owner's advocate, the Energy Program delivers professional expertise and contract management services. By leveraging capital investments, owners can achieve efficiencies, improve facilities, and reduce carbon emissions in their publicly-owned facilities. Energy Program also creates value to owners by managing risk through guaranteed total project costs, equipment performance, and energy savings.
- D. Client Agency, an owner of a public facility, desires to contract with Energy Program to access and obtain certain Energy Program Services.
- E. The purpose of this Agreement is to establish a vehicle for Energy Program to provide future energy/utility conservation project management services to Client Agency and to authorize the development of the energy services proposal in a cost-effective, efficient manner.

## A G R E E M E N T

NOW THEREFORE, in consideration of the mutual covenants and agreements set forth herein, the parties agree as follows:

1. **TERM.** The term of this *Agreement* commences on the date of the last signature and ends **December 31, 2024.**

2. **STATEMENT OF WORK.**

A. **ENERGY PROGRAM.** Energy Program agrees to provide the following Services:

- i. Upon request by Client Agency for energy services for a specific Energy/Utility Conservation Project(s), the Parties shall execute an amendment to this *Agreement* to specify the project and associated project management fees as set forth by Attachment B. Enterprise Services shall furnish necessary personnel and services as specified and set forth in Attachment A, *Project Management Services Scope of Work*.
- ii. Assist in Dispute Resolution. Dispute resolution is an ongoing process throughout the project. However, this assistance does not include formal dispute resolution, arbitration or legal advice or representation in any legal action, and does not include legal fees and costs related to any dispute. Formal dispute resolution begins when a written claim is received demanding arbitration or other legal process is received. All formal dispute fees and costs will be borne separately by Client Agency. The Attorney General cannot and will not represent or advise a non-state agency.

B. **CLIENT AGENCY.** Client Agency agrees to the following:

- i. Will conform to the protocols of this *Agreement*, including Enterprise Services' *General Conditions for Washington State Energy Savings Performance Contracting ("General Conditions")*, and as supplemented.
- ii. Will conform to the requirements of the *General Conditions* for timely processing and approval of agreed upon changes to construction contracts involving cost, and for payment.
- iii. Will conform to the following guidelines for communications between Client Agency, Enterprise Services and ESCOs (Energy Services Company) through the design, construction and post-construction phases as outlined below:
  - a) Communications between Client Agency, Energy Program Project Manager ("PM") and ESCO shall go through the PM. The PM may authorize exceptions for specific projects or situations. The PM may authorize the ESCO to communicate directly with Client Agency personnel to expedite the design and to avoid communication delays. This action does not authorize additional work, change in scope, or exclude copying all communications between ESCO and Client Agency to the PM.
  - b) All drawings, specifications, reports, and project correspondence must contain the State Project Number and suffix.
    - The State Project Number consists of the fiscal year and a numerical sequence number, for example 2018-024, followed by an alphabetical suffix.

- Professional services agreements have suffixes A through F, for example 2018-024 A.
  - Construction contracts have suffixes G through Z, for example 2018-024 G.
- iv. All identification and monitoring of documentation required by the funding source shall remain the responsibility of Client Agency.

### 3. COMPENSATION AND REQUIREMENTS.

- A. **COMPENSATION.** Compensation under this *Agreement* shall be by amendment to this *Agreement* for each authorized project. Each amendment shall include a payment schedule for the specific project.
- i. **Project Management Services Scope of Work (Attachment A):** For project management services provided by Energy Program, Client Agency shall pay Enterprise Services a Project Management Fee for services based on the total project value (including Washington state sales tax) per the Project Management Fee Schedule set forth in Attachment B.
  - ii. **Termination Fee:** If Client Agency, after authorizing an investment grade audit and energy services proposal, decides not to proceed with an energy/utility conservation project that meets Client Agency's cost effective criteria, then the Client Agency will be charged a termination fee as set forth in Project Management Fee Schedule. The termination fee shall be based on the estimated total project value outlined in the energy services proposal prepared by the ESCO as set forth in Attachment B.
  - iii. **Measurement & Verification Services ("M&V") Scope of Work (Attachment C):** If M&V are requested by Client Agency beyond the first three years following the notice of commencement of energy cost savings, Client Agency shall pay Enterprise Services \$2,000.00 annually for each year that such M&V are provided.
- B. **PAYMENT FOR ESCO SERVICES.** In the event that Client Agency enters into a contract with an Energy Program pre-qualified ESCO, pursuant to an *Enterprise Services Master Energy Services Agreement for ESCO Services*, Client Agency shall make payment for such contracted services directly to the ESCO, after Energy Program has reviewed and sent such invoices to Client Agency for payment.
- C. **FURTHER ASSURANCES.** Client Agency shall provide the ESCO with any additional necessary or desired contract language to comply with Client Agency's obligations pertaining to its use of federal, state, or other grants, funding restrictions, or unique contract/entity requirements. The ESCO and their subcontractors are required to comply with all applicable federal regulations and reporting procedures.
- D. **MANAGING COMPLIANCE WITH STATE AND FEDERAL LAW.** In all ESCO project agreements and contracts pertaining to this *Agreement*, Energy Program will require ESCO's compliance with applicable federal and state laws and state policies including, but not limited to, the following:
- 1. RCW Title 39 and 43
  - 2. ADA Requirements
  - 3. Buy America
  - 4. Davis-Bacon
  - 5. Prevailing Wage
  - 6. DBE Participation
  - 7. Apprentice Participation

Upon request by Client Agency, Energy Program will collect and provide the weekly-certified payroll to Client Agency. Client Agency, however, shall remain responsible for any documentation required by Client Agency's funding source. All federal verification, investigation, survey, reporting and enforcement requirements when there is a possible violation shall remain the responsibility of the federal grant recipient (Client Agency) unless negotiated by Energy Program and added by amendment to this *Agreement*. In the event that Energy Program becomes aware of a possible violation, it will notify Client Agency.

**4. INVOICES AND BILLING.**

- A. **BILLING PROCEDURE.** Enterprise Services shall submit invoices to Client Agency upon substantial completion and notice of commencement of energy cost savings of each authorized project, unless an amendment specifies special billing conditions and timeline. Substantial completion of the project will include the delivery and acceptance of the notice of commencement of energy cost savings issued by the energy services company. Each invoice will clearly indicate that it is for the services rendered in performance under this *Agreement* and shall reflect this *Agreement* and Amendment number. Energy Program will invoice for any provided services within sixty (60) days of the expiration or termination of this *Agreement*.
- B. **PAYMENT PROCEDURE.** Client Agency shall pay all invoices received from Enterprise Services within thirty (30) days of receipt of properly executed invoice vouchers.
- C. **BILLING DETAIL.** Each invoice submitted to Client Agency by Enterprise Services shall include information as is necessary for Client Agency to determine the exact nature of all expenditures. At a minimum, the invoice shall reference this *Agreement* and include the following:
- The date(s) such services were provided
  - Brief description of the services provided
  - Total invoice amount
- D. **BILLING ADDRESS.** Invoices shall be delivered to Client Agency electronically to:

Email: [acsmith@ci.lacey.wa.us](mailto:acsmith@ci.lacey.wa.us)

5. **AGREEMENT MANAGEMENT.** The parties hereby designate the following *Agreement* administrators as the respective single points of contact for purposes of this *Agreement*, each of whom shall be the principal contact for business activities under this *Agreement*. The parties may change administrators by written notice as set forth below. Any notices required or desired shall be in writing and sent by U.S. mail, postage prepaid, or sent via email, and shall be sent to the respective addressee at the respective address or email address set forth below or to such other address or email address as the parties may specify in writing:

**Enterprise Services**  
Attn: Donna Albert  
Energy Project Manager  
Energy Program  
Washington Dept. of Enterprise Services  
PO Box 41476  
Olympia, WA 98504-1476  
Tel: (360) 489-2420  
Email: [donna.albert@des.wa.gov](mailto:donna.albert@des.wa.gov)

**Client Agency**  
Attn: Ashley Smith  
Capital Projects Manager  
City of Lacey  
420 College St E  
Lacey, WA 98503  
Tel: (360) 413-4340  
Email: [acsmith@ci.lacey.wa.us](mailto:acsmith@ci.lacey.wa.us)

Notices shall be deemed effective upon the earlier of receipt, if mailed, or, if emailed, upon transmission to the designated email address of said addressee.

The Client Agency representative shall be responsible for working with Energy Program, approving billings and expenses submitted by Energy Program, and accepting any reports from Energy Program or ESCO.

The Energy Program representative shall be the contact person for all communications regarding the conduct of work under this *Agreement*.

**6. RECORDS.**

A. **AGREEMENT AVAILABILITY.** Prior to its entry into force, this *Agreement* shall be posted on the parties' websites or other electronically retrievable public source as required by RCW 39.34.040.

B. **RECORDS RETENTION.** Each party shall maintain records and other evidence that sufficiently and properly reflect all direct and indirect costs expended by either party in the performance and payment of the services. These records shall be subject to inspection, review, or audit by personnel of both parties, other personnel duly authorized by either party, the Office of the State Auditor, and officials authorized by law. Such records shall be retained for a period of six (6) years following expiration or termination of this *Agreement* or final payment for any service placed against this *Agreement*, whichever is later; Provided, however, that if any litigation, claim, or audit is commenced prior to the expiration of this period, such period shall extend until all such litigation, claims, or audits have been resolved.

C. **OWNERSHIP.** Records and other information, in any medium, furnished by one party to this *Agreement* to the other party, will remain the property of the furnishing party, unless otherwise agreed. The receiving party will not disclose or make available this material to any third party without first providing notice to the other party and allowing ten (10) business days in which to file, at its sole expense, a motion seeking a protective order, or other legal action. Each party will utilize reasonable security procedures and protections to assure that records and information provided by the other party are not erroneously disclosed to third parties.

D. **PUBLIC RECORDS.** This *Agreement* and all related records are subject to public disclosure as required by RCW 42.56, the Public Records Act (PRA). Neither party shall release any record that would, in the judgment of the party, be subject to an exemption from disclosure under the PRA, without first providing notice to the other party and allowing ten (10) business days in which to file, at its sole expense, a motion seeking a protective order, or other legal action.

7. **RESPONSIBILITY OF THE PARTIES.** Each party to this *Agreement* assumes responsibility for claims and/or damages to persons and/or property resulting from any act or omission on the part of itself, its employees, or its agents. Neither party assumes any responsibility to the other party for any third party claims.

8. **DISPUTE RESOLUTION.** The parties shall use their best, good faith efforts cooperatively and collaboratively to resolve any dispute that may arise in connection with this *Agreement* as efficiently as practicable, and at the lowest possible level with authority to resolve such dispute. The parties shall make a good faith effort to continue without delay to carry out their respective responsibilities under this *Agreement* while attempting to resolve any such dispute. If, however, a dispute persists regarding this *Agreement* and cannot be resolved, it may be escalated within each organization. In such situation, upon notice by either party, each party, within five (5) business days shall produce its description of the dispute in writing and deliver it to the other party. The receiving party then shall have three (3) business days to review and respond in writing. In the event that the parties cannot

then agree on a resolution of the dispute, the parties shall schedule a conference between the respective senior managers of each organization to attempt to resolve the dispute. In the event the parties cannot agree on a mutual resolution within fifteen (15) business days, the parties shall abide by the Governor's dispute resolution process (RCW 43.17.330), if applicable, or collectively shall appoint a third party to evaluate and resolve the dispute and such dispute resolution shall be final and binding on the parties.

9. **TERMINATION FOR CONVENIENCE.** Except as otherwise provided in this *Agreement*, either party may terminate this *Agreement* upon thirty (30) calendar days prior written notification. Upon such termination, the parties shall be liable only for performance rendered or costs incurred in accordance with the terms of this *Agreement* prior to the effective date of such termination.

10. **GENERAL PROVISIONS.**

- A. **COMPLIANCE WITH LAW.** The Parties shall comply with all applicable law.
- B. **INTEGRATED AGREEMENT.** This *Agreement* constitutes the entire agreement and understanding of the parties with respect to the subject matter and supersedes all prior negotiations, representations, and understandings between them. There are no representations or understandings of any kind not set forth herein.
- C. **AMENDMENT OR MODIFICATION.** Except as set forth herein, this *Agreement* may not be amended or modified except in writing and signed by a duly authorized representative of each party.
- D. **AUTHORITY.** Each party to this *Agreement*, and each individual signing on behalf of each party, hereby represents and warrants to the other that it has full power and authority to enter into this *Agreement* and that its execution, delivery, and performance of this *Agreement* has been fully authorized and approved, and that no further approvals or consents are required to bind such party.
- E. **NO AGENCY.** The parties agree that no agency, partnership, or joint venture of any kind shall be or is intended to be created by or under this *Agreement*. Neither party is an agent of the other party nor authorized to obligate it.
- F. **GOVERNING LAW.** The validity, construction, performance, and enforcement of this *Agreement* shall be governed by and construed in accordance with the laws of the State of Washington, without regard to its choice of law rules.
- G. **JURISDICTION & VENUE.** In the event that any action is brought to enforce any provision of this *Agreement*, the parties agree to exclusive jurisdiction in Thurston County Superior Court for the State of Washington and agree that in any such action venue shall lie exclusively at Olympia, Washington.
- H. **EXHIBITS.** All exhibits referred to herein are deemed to be incorporated in this *Agreement* in their entirety.
- I. **CAPTIONS & HEADINGS.** The captions and headings in this *Agreement* are for convenience only and are not intended to, and shall not be construed to, limit, enlarge, or affect the scope or intent of this *Agreement* nor the meaning of any provisions hereof.
- J. **ELECTRONIC SIGNATURES.** A signed copy of this *Agreement* or any other ancillary agreement transmitted by facsimile, email, or other means of electronic transmission shall be deemed to have the same legal effect as delivery of an original executed copy of this *Agreement* or such other ancillary agreement for all purposes.

K. COUNTERPARTS. This *Agreement* may be executed in any number of counterparts, each of which shall be deemed an original and all of which counterparts together shall constitute the same instrument which may be sufficiently evidenced by one counterpart. Execution of this *Agreement* at different times and places by the parties shall not affect the validity thereof so long as all the parties hereto execute a counterpart of this *Agreement*.

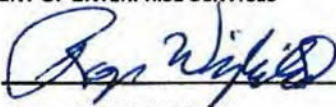
EXECUTED AND EFFECTIVE as of the date of the last signature.

CITY OF LACEY

By:   
Name: Scott Spence  
Title: Lacey City Manager  
Date: 3/12/2020

STATE OF WASHINGTON

DEPARTMENT OF ENTERPRISE SERVICES

By:   
Name: Roger A. Wigfield, PE  
Title: Energy Program Manager  
Date: 3/12/20

**ATTACHMENT B**  
**PROJECT MANAGEMENT FEE SCHEDULE**  
**2019-21 Interagency Reimbursement Costs**  
**for Project Management Fees to Administer Energy/Utility Conservation Projects**

| <b><u>TOTAL PROJECT VALUE</u></b> | <b><u>PROJECT<br/>MANAGEMENT FEE</u></b> | <b><u>TERMINATION FEE</u></b> |
|-----------------------------------|------------------------------------------|-------------------------------|
| 5,000,001..... 6,000,000.....     | \$68,800.....                            | 25,700                        |
| 4,000,001... .. 5,000,000.....    | 67,700.....                              | 25,400                        |
| 3,000,001..... 4,000,000.....     | 66,700.....                              | 25,000                        |
| 2,000,001..... 3,000,000.....     | 62,500.....                              | 23,400                        |
| 1,500,001..... 2,000,000.....     | 58,300.....                              | 21,800                        |
| 1,000,001..... 1,500,000.....     | 51,600.....                              | 19,300                        |
| 900,001. .... 1,000,000.....      | 43,800.....                              | 16,400                        |
| 800,001..... .. 900,000.....      | 41,300.....                              | 15,400                        |
| 700,001..... .. 800,000.....      | 38,300.....                              | 14,400                        |
| 600,001..... .. 700,000.....      | 36,500.....                              | 13,700                        |
| 500,001..... .. 600,000.....      | 33,800.....                              | 12,600                        |
| 400,001..... .. 500,000.....      | 30,200.....                              | 11,300                        |
| 300,001..... .. 400,000.....      | 25,800.....                              | 9,700                         |
| 200,001..... .. 300,000.....      | 20,700.....                              | 7,700                         |
| 100,001..... .. 200,000.....      | 14,400.....                              | 5,400                         |
| 50,001..... .. 100,000.....       | 7,800.....                               | 3,500                         |
| 20,001..... .. 50,000.....        | 4,200.....                               | 2,000                         |

The project management fee on projects over \$6,000,000 is 1.15% of the project cost. The maximum Energy Program termination fee is \$25,700.

1. These fees cover project management services for energy/utility conservation projects managed by Enterprise Services' Energy Program.
2. Termination fees cover the selection and project management costs associated with managing an ESCO's Investment grade audit and energy services proposal. No termination fee will be charged unless Client Agency decided not to proceed to construction based on an energy services proposal that identifies projects that met Client Agency's cost effectiveness criteria.
3. If the project meets Client Agency's cost effectiveness criteria and Client Agency decides not to move forward with a project, then Client Agency will be Invoiced per the above listed Termination Fee or \$25,700 whichever is less. If Client Agency decides to proceed with the project then the *Agreement* will be amended to include the Project Management Fee listed above.
4. If the audit fails to produce a project that meets Client Agency's established cost effectiveness criteria, then there is no cost to Client Agency and no further obligation by Client Agency.

**ATTACHMENT C**  
**MEASUREMENT & VERIFICATION SERVICES SCOPE OF WORK**  
**Energy/Utility Conservation Projects**  
**Statewide Energy Performance Contracting Program**

If requested, Energy Program will provide the following measurement and verification services for each year beyond the first three years following the Notice of Commencement of Energy Cost Savings by the ESCO for the specific Client Agency project:

1. Review the ESCO's annual Measurement and Verification report for completeness and accuracy. Review any ESCO guarantee compared to reported results and resolve differences, if needed. Review and forward any ESCO invoice vouchers for payment by the Client Agency.
2. Where necessary, review Client Agency facility operations including any changes in operating hours, changes in square footage, additional energy consuming equipment and negotiate changes in baseline energy use with the ESCO and Client Agency that may impact achieved energy savings.
3. Attend a meeting or meetings with Client Agency and ESCO to review and discuss the annual Measurement and Verification report.

|                                                                                                                               |                              |                  |
|-------------------------------------------------------------------------------------------------------------------------------|------------------------------|------------------|
| State of Washington<br><b>ENERGY PROGRAM</b><br>Department of Enterprise Services<br>P.O. Box 41476<br>Olympia, WA 98504-1476 | <b>INTERAGENCY AGREEMENT</b> |                  |
|                                                                                                                               | IAA No.:                     | K6450            |
| <b>CITY OF LACEY</b><br>420 College St E<br>Lacey, WA 98503                                                                   | Date:                        | January 29, 2020 |

**INTERAGENCY AGREEMENT**  
**BETWEEN**  
**CITY OF LACEY**  
**AND**  
**WASHINGTON STATE DEPARTMENT OF ENTERPRISE SERVICES**

Pursuant to RCW chapter 39.34 and RCW chapter 39.35C, this *Interagency Agreement (Agreement)* is made and entered into by and between the State of Washington acting by and through the Energy Program of the Department of Enterprise Services, a Washington State governmental agency ("Enterprise Services") and City of Lacey, a Washington State governmental agency ("Client Agency") and is dated and effective as of the date of the last signature.

**RECITALS**

- A. Enterprise Services, through its Energy Program ("Energy Program"), helps owners of public facilities reduce energy and operational costs. The Energy Program is a national leader in developing and managing energy savings performance contracts that help reduce energy and operational costs in publicly-owned facilities.
- B. Upgrading to energy efficient infrastructure helps reduce long-term operations and maintenance costs. This allows owners to be better financial stewards while achieving their mission, so that Washington is a better place to live, learn, and work.
- C. Acting as the owner's advocate, the Energy Program delivers professional expertise and contract management services. By leveraging capital investments, owners can achieve efficiencies, improve facilities, and reduce carbon emissions in their publicly-owned facilities. Energy Program also creates value to owners by managing risk through guaranteed total project costs, equipment performance, and energy savings.
- D. Client Agency, an owner of a public facility, desires to contract with Energy Program to access and obtain certain Energy Program Services.
- E. The purpose of this Agreement is to establish a vehicle for Energy Program to provide future energy/utility conservation project management services to Client Agency and to authorize the development of the energy services proposal in a cost-effective, efficient manner.

## AGREEMENT

NOW THEREFORE, in consideration of the mutual covenants and agreements set forth herein, the parties agree as follows:

1. **TERM.** The term of this *Agreement* commences on the date of the last signature and ends **December 31, 2024**.

2. **STATEMENT OF WORK.**

A. **ENERGY PROGRAM.** Energy Program agrees to provide the following Services:

- i. Upon request by Client Agency for energy services for a specific Energy/Utility Conservation Project(s), the Parties shall execute an amendment to this *Agreement* to specify the project and associated project management fees as set forth by Attachment B. Enterprise Services shall furnish necessary personnel and services as specified and set forth in Attachment A, *Project Management Services Scope of Work*.
- ii. Assist in Dispute Resolution. Dispute resolution is an ongoing process throughout the project. However, this assistance does not include formal dispute resolution, arbitration or legal advice or representation in any legal action, and does not include legal fees and costs related to any dispute. Formal dispute resolution begins when a written claim is received demanding arbitration or other legal process is received. All formal dispute fees and costs will be borne separately by Client Agency. The Attorney General cannot and will not represent or advise a non-state agency.

B. **CLIENT AGENCY.** Client Agency agrees to the following:

- i. Will conform to the protocols of this *Agreement*, including Enterprise Services' *General Conditions for Washington State Energy Savings Performance Contracting ("General Conditions")*, and as supplemented.
- ii. Will conform to the requirements of the *General Conditions* for timely processing and approval of agreed upon changes to construction contracts involving cost, and for payment.
- iii. Will conform to the following guidelines for communications between Client Agency, Enterprise Services and ESCOs (Energy Services Company) through the design, construction and post-construction phases as outlined below:
  - a) Communications between Client Agency, Energy Program Project Manager ("PM") and ESCO shall go through the PM. The PM may authorize exceptions for specific projects or situations. The PM may authorize the ESCO to communicate directly with Client Agency personnel to expedite the design and to avoid communication delays. This action does not authorize additional work, change in scope, or exclude copying all communications between ESCO and Client Agency to the PM.
  - b) All drawings, specifications, reports, and project correspondence must contain the State Project Number and suffix.
    - The State Project Number consists of the fiscal year and a numerical sequence number, for example 2018-024, followed by an alphabetical suffix.



- Professional services agreements have suffixes A through F, for example 2018-024 A.
  - Construction contracts have suffixes G through Z, for example 2018-024 G.
- iv. All identification and monitoring of documentation required by the funding source shall remain the responsibility of Client Agency.

### 3. COMPENSATION AND REQUIREMENTS.

- A. **COMPENSATION.** Compensation under this *Agreement* shall be by amendment to this *Agreement* for each authorized project. Each amendment shall include a payment schedule for the specific project.
- i. **Project Management Services Scope of Work (Attachment A):** For project management services provided by Energy Program, Client Agency shall pay Enterprise Services a Project Management Fee for services based on the total project value (including Washington state sales tax) per the Project Management Fee Schedule set forth in Attachment B.
  - ii. **Termination Fee:** If Client Agency, after authorizing an investment grade audit and energy services proposal, decides not to proceed with an energy/utility conservation project that meets Client Agency's cost effective criteria, then the Client Agency will be charged a termination fee as set forth in Project Management Fee Schedule. The termination fee shall be based on the estimated total project value outlined in the energy services proposal prepared by the ESCO as set forth in Attachment B.
  - iii. **Measurement & Verification Services ("M&V") Scope of Work (Attachment C):** If M&V are requested by Client Agency beyond the first three years following the notice of commencement of energy cost savings, Client Agency shall pay Enterprise Services \$2,000.00 annually for each year that such M&V are provided.
- B. **PAYMENT FOR ESCO SERVICES.** In the event that Client Agency enters into a contract with an Energy Program pre-qualified ESCO, pursuant to an *Enterprise Services Master Energy Services Agreement for ESCO Services*, Client Agency shall make payment for such contracted services directly to the ESCO, after Energy Program has reviewed and sent such invoices to Client Agency for payment.
- C. **FURTHER ASSURANCES.** Client Agency shall provide the ESCO with any additional necessary or desired contract language to comply with Client Agency's obligations pertaining to its use of federal, state, or other grants, funding restrictions, or unique contract/entity requirements. The ESCO and their subcontractors are required to comply with all applicable federal regulations and reporting procedures.
- D. **MANAGING COMPLIANCE WITH STATE AND FEDERAL LAW.** In all ESCO project agreements and contracts pertaining to this *Agreement*, Energy Program will require ESCO's compliance with applicable federal and state laws and state policies including, but not limited to, the following:
- 1. RCW Title 39 and 43
  - 2. ADA Requirements
  - 3. Buy America
  - 4. Davis-Bacon
  - 5. Prevailing Wage
  - 6. DBE Participation
  - 7. Apprentice Participation

Upon request by Client Agency, Energy Program will collect and provide the weekly-certified payroll to Client Agency. Client Agency, however, shall remain responsible for any documentation required by Client Agency's funding source. All federal verification, investigation, survey, reporting and enforcement requirements when there is a possible violation shall remain the responsibility of the federal grant recipient (Client Agency) unless negotiated by Energy Program and added by amendment to this *Agreement*. In the event that Energy Program becomes aware of a possible violation, it will notify Client Agency.

**4. INVOICES AND BILLING.**

- A. **BILLING PROCEDURE.** Enterprise Services shall submit invoices to Client Agency upon substantial completion and notice of commencement of energy cost savings of each authorized project, unless an amendment specifies special billing conditions and timeline. Substantial completion of the project will include the delivery and acceptance of the notice of commencement of energy cost savings issued by the energy services company. Each invoice will clearly indicate that it is for the services rendered in performance under this *Agreement* and shall reflect this *Agreement* and Amendment number. Energy Program will invoice for any provided services within sixty (60) days of the expiration or termination of this *Agreement*.
- B. **PAYMENT PROCEDURE.** Client Agency shall pay all invoices received from Enterprise Services within thirty (30) days of receipt of properly executed invoice vouchers.
- C. **BILLING DETAIL.** Each invoice submitted to Client Agency by Enterprise Services shall include information as is necessary for Client Agency to determine the exact nature of all expenditures. At a minimum, the invoice shall reference this *Agreement* and include the following:
- The date(s) such services were provided
  - Brief description of the services provided
  - Total invoice amount
- D. **BILLING ADDRESS.** Invoices shall be delivered to Client Agency electronically to:
- Email: [acsmith@ci.lacey.wa.us](mailto:acsmith@ci.lacey.wa.us)

5. **AGREEMENT MANAGEMENT.** The parties hereby designate the following *Agreement* administrators as the respective single points of contact for purposes of this *Agreement*, each of whom shall be the principal contact for business activities under this *Agreement*. The parties may change administrators by written notice as set forth below. Any notices required or desired shall be in writing and sent by U.S. mail, postage prepaid, or sent via email, and shall be sent to the respective addressee at the respective address or email address set forth below or to such other address or email address as the parties may specify in writing:

**Enterprise Services**  
Attn: Donna Albert  
Energy Project Manager  
Energy Program  
Washington Dept. of Enterprise Services  
PO Box 41476  
Olympia, WA 98504-1476  
Tel: (360) 489-2420  
Email: [donna.albert@des.wa.gov](mailto:donna.albert@des.wa.gov)

**Client Agency**  
Attn: Ashley Smith  
Capital Projects Manager  
City of Lacey  
420 College St E  
Lacey, WA 98503  
Tel: (360) 413-4340  
Email: [acsmith@ci.lacey.wa.us](mailto:acsmith@ci.lacey.wa.us)

Notices shall be deemed effective upon the earlier of receipt, if mailed, or, if emailed, upon transmission to the designated email address of said addressee.

The Client Agency representative shall be responsible for working with Energy Program, approving billings and expenses submitted by Energy Program, and accepting any reports from Energy Program or ESCO.

The Energy Program representative shall be the contact person for all communications regarding the conduct of work under this *Agreement*.

**6. RECORDS.**

- A. **AGREEMENT AVAILABILITY.** Prior to its entry into force, this *Agreement* shall be posted on the parties' websites or other electronically retrievable public source as required by RCW 39.34.040.
- B. **RECORDS RETENTION.** Each party shall maintain records and other evidence that sufficiently and properly reflect all direct and indirect costs expended by either party in the performance and payment of the services. These records shall be subject to inspection, review, or audit by personnel of both parties, other personnel duly authorized by either party, the Office of the State Auditor, and officials authorized by law. Such records shall be retained for a period of six (6) years following expiration or termination of this *Agreement* or final payment for any service placed against this *Agreement*, whichever is later; Provided, however, that if any litigation, claim, or audit is commenced prior to the expiration of this period, such period shall extend until all such litigation, claims, or audits have been resolved.
- C. **OWNERSHIP.** Records and other information, in any medium, furnished by one party to this *Agreement* to the other party, will remain the property of the furnishing party, unless otherwise agreed. The receiving party will not disclose or make available this material to any third party without first providing notice to the other party and allowing ten (10) business days in which to file, at its sole expense, a motion seeking a protective order, or other legal action. Each party will utilize reasonable security procedures and protections to assure that records and information provided by the other party are not erroneously disclosed to third parties.
- D. **PUBLIC RECORDS.** This *Agreement* and all related records are subject to public disclosure as required by RCW 42.56, the Public Records Act (PRA). Neither party shall release any record that would, in the judgment of the party, be subject to an exemption from disclosure under the PRA, without first providing notice to the other party and allowing ten (10) business days in which to file, at its sole expense, a motion seeking a protective order, or other legal action.

**7. RESPONSIBILITY OF THE PARTIES.** Each party to this *Agreement* assumes responsibility for claims and/or damages to persons and/or property resulting from any act or omission on the part of itself, its employees, or its agents. Neither party assumes any responsibility to the other party for any third party claims.

**8. DISPUTE RESOLUTION.** The parties shall use their best, good faith efforts cooperatively and collaboratively to resolve any dispute that may arise in connection with this *Agreement* as efficiently as practicable, and at the lowest possible level with authority to resolve such dispute. The parties shall make a good faith effort to continue without delay to carry out their respective responsibilities under this *Agreement* while attempting to resolve any such dispute. If, however, a dispute persists regarding this *Agreement* and cannot be resolved, it may be escalated within each organization. In such situation, upon notice by either party, each party, within five (5) business days shall produce its description of the dispute in writing and deliver it to the other party. The receiving party then shall have three (3) business days to review and respond in writing. In the event that the parties cannot

then agree on a resolution of the dispute, the parties shall schedule a conference between the respective senior managers of each organization to attempt to resolve the dispute. In the event the parties cannot agree on a mutual resolution within fifteen (15) business days, the parties shall abide by the Governor's dispute resolution process (RCW 43.17.330), if applicable, or collectively shall appoint a third party to evaluate and resolve the dispute and such dispute resolution shall be final and binding on the parties.

9. **TERMINATION FOR CONVENIENCE.** Except as otherwise provided in this *Agreement*, either party may terminate this *Agreement* upon thirty (30) calendar days prior written notification. Upon such termination, the parties shall be liable only for performance rendered or costs incurred in accordance with the terms of this *Agreement* prior to the effective date of such termination.

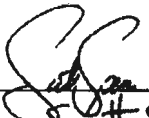
10. **GENERAL PROVISIONS.**

- A. **COMPLIANCE WITH LAW.** The Parties shall comply with all applicable law.
- B. **INTEGRATED AGREEMENT.** This *Agreement* constitutes the entire agreement and understanding of the parties with respect to the subject matter and supersedes all prior negotiations, representations, and understandings between them. There are no representations or understandings of any kind not set forth herein.
- C. **AMENDMENT OR MODIFICATION.** Except as set forth herein, this *Agreement* may not be amended or modified except in writing and signed by a duly authorized representative of each party.
- D. **AUTHORITY.** Each party to this *Agreement*, and each individual signing on behalf of each party, hereby represents and warrants to the other that it has full power and authority to enter into this *Agreement* and that its execution, delivery, and performance of this *Agreement* has been fully authorized and approved, and that no further approvals or consents are required to bind such party.
- E. **NO AGENCY.** The parties agree that no agency, partnership, or joint venture of any kind shall be or is intended to be created by or under this *Agreement*. Neither party is an agent of the other party nor authorized to obligate it.
- F. **GOVERNING LAW.** The validity, construction, performance, and enforcement of this *Agreement* shall be governed by and construed in accordance with the laws of the State of Washington, without regard to its choice of law rules.
- G. **JURISDICTION & VENUE.** In the event that any action is brought to enforce any provision of this *Agreement*, the parties agree to exclusive jurisdiction in Thurston County Superior Court for the State of Washington and agree that in any such action venue shall lie exclusively at Olympia, Washington.
- H. **EXHIBITS.** All exhibits referred to herein are deemed to be incorporated in this *Agreement* in their entirety.
- I. **CAPTIONS & HEADINGS.** The captions and headings in this *Agreement* are for convenience only and are not intended to, and shall not be construed to, limit, enlarge, or affect the scope or intent of this *Agreement* nor the meaning of any provisions hereof.
- J. **ELECTRONIC SIGNATURES.** A signed copy of this *Agreement* or any other ancillary agreement transmitted by facsimile, email, or other means of electronic transmission shall be deemed to have the same legal effect as delivery of an original executed copy of this *Agreement* or such other ancillary agreement for all purposes.

K. COUNTERPARTS. This *Agreement* may be executed in any number of counterparts, each of which shall be deemed an original and all of which counterparts together shall constitute the same instrument which may be sufficiently evidenced by one counterpart. Execution of this *Agreement* at different times and places by the parties shall not affect the validity thereof so long as all the parties hereto execute a counterpart of this *Agreement*.

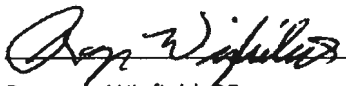
EXECUTED AND EFFECTIVE as of the date of the last signature.

**CITY OF LACEY**

By:   
Name: Scott Spence  
Title: Lacey City Manager  
Date: 3/12/2020

**STATE OF WASHINGTON**

**DEPARTMENT OF ENTERPRISE SERVICES**

By:   
Name: Roger A. Wigfield PE  
Title: Energy Program Manager  
Date: 3/12/20

**ATTACHMENT A**  
**PROJECT MANAGEMENT SERVICES SCOPE OF WORK**  
Energy/Utility Conservation Projects  
Statewide Energy Performance Contracting Program

Energy Program will provide the following project management services for each specific project for the Client Agency. Each individual project shall be authorized by an amendment to this *Agreement*.

1. Assist the Client Agency in the selection of an Energy Service Company (ESCO) consistent with the requirements of RCW 39.35A for local governments; or 39.35C for state agencies and school districts.
2. Assist in identifying potential energy/utility conservation measures and estimated cost savings.
3. Assist in negotiating scope of work and fee for an ESCO audit of the facility(s).
4. Assist in identifying appropriate project funding sources and assist with obtaining project funding.
5. Assist in negotiating the technical, financial and legal issues associated with ESCO's Energy Services Proposal.
6. Review and recommend approval of ESCO energy/utility audits and Energy Services Proposals.
7. Provide assistance during the design, construction and commissioning processes.
8. Review ESCO invoice voucher(s) received for reasonableness and forward to Client Agency for review and payment.
9. Assist with final project acceptance.
10. Assist in resolution of disputes with the ESCO that arise during this *Agreement*, not to include formal disputes.
11. Review up to the first three years of the ESCO's annual Measurement and Verification (M&V) reports for completeness and accuracy. Review any ESCO guarantee compared to reported results and resolve differences, if needed. Review and forward ESCO invoice vouchers for payment by the Client Agency.

## ATTACHMENT B

### PROJECT MANAGEMENT FEE SCHEDULE

2019-21 Interagency Reimbursement Costs  
for Project Management Fees to Administer Energy/Utility Conservation Projects

| <u>TOTAL PROJECT VALUE</u>     | <u>PROJECT<br/>MANAGEMENT FEE</u> | <u>TERMINATION FEE</u> |
|--------------------------------|-----------------------------------|------------------------|
| 5,000,001..... 6,000,000.....  | \$68,800.....                     | 25,700                 |
| 4,000,001... .. 5,000,000..... | 67,700.....                       | 25,400                 |
| 3,000,001..... 4,000,000.....  | 66,700.....                       | 25,000                 |
| 2,000,001..... 3,000,000.....  | 62,500.....                       | 23,400                 |
| 1,500,001..... 2,000,000.....  | 58,300.....                       | 21,800                 |
| 1,000,001..... 1,500,000.....  | 51,600.....                       | 19,300                 |
| 900,001. .... 1,000,000.....   | 43,800.....                       | 16,400                 |
| 800,001..... 900,000.....      | 41,300.....                       | 15,400                 |
| 700,001..... 800,000.....      | 38,300.....                       | 14,400                 |
| 600,001..... 700,000.....      | 36,500.....                       | 13,700                 |
| 500,001..... 600,000.....      | 33,800.....                       | 12,600                 |
| 400,001..... 500,000.....      | 30,200.....                       | 11,300                 |
| 300,001..... 400,000.....      | 25,800.....                       | 9,700                  |
| 200,001..... 300,000.....      | 20,700.....                       | 7,700                  |
| 100,001..... 200,000.....      | 14,400.....                       | 5,400                  |
| 50,001..... 100,000.....       | 7,800.....                        | 3,500                  |
| 20,001..... 50,000.....        | 4,200.....                        | 2,000                  |

The project management fee on projects over \$6,000,000 is 1.15% of the project cost. The maximum Energy Program termination fee is \$25,700.

1. These fees cover project management services for energy/utility conservation projects managed by Enterprise Services' Energy Program.
2. Termination fees cover the selection and project management costs associated with managing an ESCO's investment grade audit and energy services proposal. No termination fee will be charged unless Client Agency decided not to proceed to construction based on an energy services proposal that identifies projects that met Client Agency's cost effectiveness criteria.
3. If the project meets Client Agency's cost effectiveness criteria and Client Agency decides not to move forward with a project, then Client Agency will be invoiced per the above listed Termination Fee or \$25,700 whichever is less. If Client Agency decides to proceed with the project then the *Agreement* will be amended to include the Project Management Fee listed above.
4. If the audit fails to produce a project that meets Client Agency's established cost effectiveness criteria, then there is no cost to Client Agency and no further obligation by Client Agency.

**ATTACHMENT C**

***MEASUREMENT & VERIFICATION SERVICES SCOPE OF WORK***

**Energy/Utility Conservation Projects**

**Statewide Energy Performance Contracting Program**

If requested, Energy Program will provide the following measurement and verification services for each year beyond the first three years following the Notice of Commencement of Energy Cost Savings by the ESCO for the specific Client Agency project:

1. Review the ESCO's annual Measurement and Verification report for completeness and accuracy. Review any ESCO guarantee compared to reported results and resolve differences, if needed. Review and forward any ESCO invoice vouchers for payment by the Client Agency.
2. Where necessary, review Client Agency facility operations including any changes in operating hours, changes in square footage, additional energy consuming equipment and negotiate changes in baseline energy use with the ESCO and Client Agency that may impact achieved energy savings.
3. Attend a meeting or meetings with Client Agency and ESCO to review and discuss the annual Measurement and Verification report.

|                                                                                                                               |                                                           |                |
|-------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------|----------------|
| State of Washington<br><b>ENERGY PROGRAM</b><br>Department of Enterprise Services<br>P.O. Box 41476<br>Olympia, WA 98504-1476 | <b>INTERAGENCY AMENDMENT</b>                              |                |
|                                                                                                                               | IAA No.: K6450<br>Project No. 2020-055<br>Amendment No. 1 |                |
| <b>CITY OF LACEY</b><br>PO Box 3400<br>Lacey, WA 98509                                                                        | Date:                                                     | March 12, 2020 |

## INTERAGENCY AMENDMENT

Between

**CITY OF LACEY**

And

**WASHINGTON STATE DEPARTMENT OF ENTERPRISE SERVICES**

The parties to this Amendment, the Department of Enterprise Services, Energy Program, hereinafter referred to as "DES", and City of Lacey, hereinafter referred to as the "CLIENT AGENCY", hereby amend the Agreement as follows:

1. **TERM.** The term of the agreement commences March 12, 2020, and ending on **December 31, 2024** unless altered or amended as provided herein.
2. **STATEMENT OF WORK; COMPENSATION.** Energy Program shall provide the following services, for the following compensation, to Client Agency.
  - a. **SERVICES:** DES shall furnish the necessary personnel and services and otherwise do all things necessary for or incidental to the performance of the work set forth in Attachment "A" and Attachment "C", attached hereto and incorporated herein by reference. Unless otherwise specified, DES shall be responsible for performing all fiscal and program responsibilities as set forth in Attachment "A" and Attachment "C".

Energy/Utility Conservation projects shall be authorized by Amendment to this Agreement.

**2a.1 Lacey Community Center HVAC outlined in the Sunset Air, Inc. Energy Services Proposal dated January 23, 2020. Project No. 2020-055**

- b. **COMPENSATION.** Compensation under this Agreement shall be by Amendment to this Agreement for each authorized project. Each Amendment will include a payment schedule for the specific project.
  - i. **Project Management Services (Attachment A):** For Project Management Services provided by DES, the CLIENT AGENCY will pay DES a Project Management Fee for services based on the total project value per Project Management Fees Schedule set forth in Attachment "B".

- ii. **Termination Fee:** If the CLIENT AGENCY after authorizing an investment grade audit and Energy Services Proposal, decides not to proceed with an Energy/Utility Conservation project that meets the CLIENT AGENCY's cost effective criteria, then the CLIENT AGENCY will be charged a Termination Fee per Attachment "B". The Termination Fee will be based on the estimated Total Project Value outlined in the Energy Audit and Energy Services Proposal prepared by the Energy Services Company (ESCO).
- iii. **Measurement & Verification Services (Attachment C):** If measurement and verification services beyond the first three years following the Notice of Commencement of Energy Services are requested by the CLIENT AGENCY, and provided by DES under Attachment "C" of this Agreement, the CLIENT AGENCY will pay DES \$2,000.00 annually for each year that monitoring and verification services are provided.
- c. **PAYMENT OF ESCO SERVICES.** Compensation for services provided by the ESCO shall be paid directly to the ESCO by the CLIENT AGENCY, after DES has reviewed, recommended approval, and sent the invoices to the CLIENT AGENCY for payment.

**2c.1 Energy Project Management Fee for the work described in Section 2a.1 is \$38,300.00. Anticipated billing date for this Amendment is December 8, 2020. Project No. 2020-055**

**The new total Agreement value is \$38,300.00.**

Sections d. through e. terms and conditions of the original Agreement remain in full force and effect.

### **3. INVOICES; BILLING.**

- a. **BILLING PROCEDURE.** Energy Program shall submit a single invoice to the CLIENT AGENCY upon substantial completion of each authorized project, unless a project specified a Special Billing Condition in the Amendment. Substantial completion of the project will include the delivery and acceptance of the notice of commencement of energy savings issued by the ESCO. Each invoice will clearly indicate that it is for the services rendered in performance under this Agreement and shall reflect this Agreement and Amendment number. Energy Program will invoice for any remaining services within 60 days of the expiration or termination of this Agreement.
- b. **PAYMENT PROCEDURE.** The CLIENT AGENCY shall pay all invoices received from the Energy Program within 90 days of receipt of properly executed invoice vouchers. The CLIENT AGENCY shall notify DES in writing if the CLIENT AGENCY cannot pay an invoice within 90 days.
- c. **BILLING DETAIL.** Each invoice submitted to Client Agency by Energy Program shall include information as is necessary for Client Agency to determine the exact nature of all expenditures. At a minimum, the invoice shall reference this Agreement and include the following:

- The date(s) such services were provided
- Brief description of the services provided
- Total invoice amount

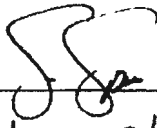
d. BILLING ADDRESS. Invoices shall be delivered to Client Agency electronically.

All sections above have been fully amended and are shown in their entirety.

All other terms and conditions of this Agreement remain in full force and effect. The requirements of RCW 39.34.030 are satisfied by the underlying Agreement and are incorporated by reference herein.

Each party signatory hereto, having first had the opportunity to read this Amendment and discuss the same with independent legal counsel, in execution of this document hereby mutually agree to all terms and conditions contained herein, and as incorporated by reference in the original Agreement.

City of Lacey

  
 \_\_\_\_\_  
 Lacey City Manager 3/24/2020  
 Title Date

Department of Enterprise Services  
 Energy Program

  
 \_\_\_\_\_  
 Roger A. Wigfield, PE  
 Energy Program Manager 3/24/20  
 Title Date

K6450IAAamd1ko

## **ATTACHMENT A – OF WORK**

**Energy/Utility Conservation Projects**

**PROJECT MANAGEMENT SERVICES**

**Statewide Energy Performance Contracting Program**

Energy Program will provide the following project management services for each specific project for the CLIENT AGENCY. Each individual project shall be authorized by Amendment to this Agreement.

1. Assist the CLIENT AGENCY in the selection of an Energy Service Company (ESCO) consistent with the requirements of RCW 39.35A for local governments; or 39.35C for state agencies and school districts.
2. Assist in identifying potential energy/utility conservation measures and estimated cost savings.
3. Negotiate scope of work and fee for ESCO audit of the facility(s).
4. Assist in identifying appropriate project funding sources and assist with obtaining project funding.
5. Assist in negotiating the technical, financial and legal issues associated with the ESCO's Energy Services Proposal.
6. Review and recommend approval of ESCO energy/utility audits and Energy Services Proposals.
7. Provide assistance during the design, construction and commissioning processes.
8. Review and recommend approval of the ESCO's invoice vouchers for payment.
9. Assist with final project acceptance.
10. Provide other services as required to complete a successful energy performance contract.

## ATTACHMENT B - Fee Schedule

2019-21 Interagency Reimbursement Costs  
for Project Management Fees to Administer Energy/Utility Conservation Projects

| <u>TOTAL PROJECT VALUE</u>   | <u>PROJECT<br/>MANAGEMENT FEE</u> | <u>TERMINATION</u> |
|------------------------------|-----------------------------------|--------------------|
| 5,000,001.....6,000,000..... | \$68,800.....                     | 25,700             |
| 4,000,001.....5,000,000..... | 67,700.....                       | 25,400             |
| 3,000,001.....4,000,000..... | 66,700.....                       | 25,000             |
| 2,000,001.....3,000,000..... | 62,500.....                       | 23,400             |
| 1,500,001.....2,000,000..... | 58,300.....                       | 21,800             |
| 1,000,001.....1,500,000..... | 51,600.....                       | 19,300             |
| 900,001. ... 1,000,000.....  | 43,800.....                       | 16,400             |
| 800,001.....900,000.....     | 41,300.....                       | 15,400             |
| 700,001.....800,000.....     | 38,300.....                       | 14,400             |
| 600,001.....700,000.....     | 36,500.....                       | 13,700             |
| 500,001.....600,000.....     | 33,800.....                       | 12,600             |
| 400,001.....500,000.....     | 30,200.....                       | 11,300             |
| 300,001.....400,000.....     | 25,800.....                       | 9,700              |
| 200,001.....300,000.....     | 20,700.....                       | 7,700              |
| 100,001.....200,000.....     | 14,400.....                       | 5,400              |
| 50,001.....100,000.....      | 7,800.....                        | 3,500              |
| 20,001.....50,000.....       | 4,200.....                        | 2,000              |

The project management fee on projects over \$6,000,000 is 1.15% of the project cost. The maximum DES termination fee is \$25,700.

1. These fees cover project management services for energy/utility conservation projects managed by DES's Energy Program.
2. Termination fees cover the selection and project management costs associated with managing the ESCO's investment grade audit and energy service proposal. No termination fee will be charged unless the CLIENT AGENCY decides not to proceed to construction based on an energy services proposal that identifies projects that met the CLIENT AGENCY'S cost effectiveness criteria.
3. If the project meets the CLIENT AGENCY's cost effectiveness criteria and the CLIENT AGENCY decides not to move forward with a project, then the CLIENT AGENCY will be invoiced per Attachment B Termination or \$25,700.00 whichever is less. If the CLIENT AGENCY decides to proceed with the project then the Agreement will be amended per Attachment B for Project Management Fee.
4. If the audit fails to produce a project that meets the CLIENT AGENCY's established Cost Effectiveness Criteria, then there is no cost to the CLIENT AGENCY and no further obligation by the CLIENT AGENCY.

## **ATTACHMENT C – SCOPE OF WORK**

**Energy/Utility Conservation Projects**

**MEASUREMENT & VERIFICATION SERVICES**

**Statewide Energy Performance Contracting Program**

If requested DES will provide the following measurement and verification services following the Notice of Commencement of Energy Savings by the ESCO for the specific Client Agency project:

1. Review the ESCO's annual Measurement and Verification (M&V) report for completeness and accuracy. Review any ESCO guarantee compared to reported results and resolve differences, if needed. Review and recommend approval of any ESCO invoice vouchers for payment by the Client Agency.
2. Where necessary, review Client Agency facility operations including any changes in operating hours, changes in square footage, additional energy consuming equipment and negotiate changes in baseline energy use with the ESCO and the Client Agency that may impact achieved energy savings.
3. Attend a meeting or meetings with the Client Agency and the ESCO to review and discuss the annual M&V report.



STATE OF WASHINGTON  
DEPARTMENT OF ENTERPRISE SERVICES

1500 5th SE Olympia WA 98511  
PO Box 40000 311

March 13, 2020

TO: Ashley Smith, City of Lacey

FROM: Rachel Walters, Contracts Specialist. (360) 407-8029

RE Agreement No. 2020-055 A (1), Amendment No. 2  
Contract No. 2020-055 G (1-1),  
Lacey Community Center HVAC

IAA No. K6450

Sunset Air, Inc.

SUBJECT: Funding Approval - REVISED

The Dept. of Enterprise Services (DES), Energy Program, requires funding approval for the above referenced contract documents. The amount required is as follows (see page 2 for funding detail):

|                                                            |                      |
|------------------------------------------------------------|----------------------|
| ESCO Professional Services Total                           | \$ 143,657.73        |
| ESCO Measurement and Verification Total                    | \$ 787.68            |
| ESCO Construction Total                                    | \$ 553,613.26        |
| DES Energy Program Project Management Services Total (IAA) | \$ 38,300.00         |
| <b>Total Funding</b>                                       | <b>\$ 736,358.67</b> |

**In accordance with the provisions of RCW 43.88, the signature affixed below certifies to the DES Energy Program that the above identified funds are appropriated, allotted or that funding will be obtained from other sources available to the using client/agency. The using/client agency bears the liability for any issues related to the funding for this project**

By SS City Manager Date 3/24/2020  
Name Title

Please sign and return this form to E&AS. If you have any questions, please call me.

Agreement No. 2020-055 A (1), Amendment No. 2  
Contract No. 2020-055 G (1-1)

Funding Approval Detail

**ESCO Professional Services**

|                                                                   |           |                   |
|-------------------------------------------------------------------|-----------|-------------------|
| Energy Audit and Energy Services Proposal                         | \$        | 2,500.00          |
| *Audit & Energy Services Proposal from Authorization 20-055 A (1) | \$        | (2,500.00)        |
| Design and Implementation of Energy Conservation Measures         | \$        | 131,099.38        |
| Sales Tax (9.4%) (Includes tax on Audit proposal)                 | \$        | 12,558.35         |
| <b>Total</b>                                                      | <b>\$</b> | <b>143,657.73</b> |

**ESCO Measurement and Verification**

|                                       |           |               |
|---------------------------------------|-----------|---------------|
| First Year Measurement & Verification | \$        | 720.00        |
| Sales Tax (9.4%)                      | \$        | 67.68         |
| <b>Total</b>                          | <b>\$</b> | <b>787.68</b> |

**ESCO Construction**

|                               |           |                   |
|-------------------------------|-----------|-------------------|
| ESCO Contract Amount          | \$        | 483,875.88        |
| Sales Tax (9.4%)              | \$        | 45,484.34         |
| Contingency Amount (with Tax) | \$        | 24,253.04         |
| <b>Total</b>                  | <b>\$</b> | <b>553,613.26</b> |

**DES Energy Program Project Management Services**

|                                                            |           |                  |
|------------------------------------------------------------|-----------|------------------|
| Project Management Fee from IAA No. K6450, Amendment No. 1 | \$        | 38,300.00        |
| <b>Total</b>                                               | <b>\$</b> | <b>38,300.00</b> |

Note: Items and dollar values shown in a lighter color shade have been approved via previous funding authorizations and are shown for informational purposes only.

|                                                                                                                               |                                                                     |              |
|-------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------|--------------|
| State of Washington<br><b>ENERGY PROGRAM</b><br>Department of Enterprise Services<br>P.O. Box 41476<br>Olympia, WA 98504-1476 | <b>INTERAGENCY AMENDMENT</b>                                        |              |
|                                                                                                                               | IAA No.: K6450<br>Project No. 2020-055, 2020-524<br>Amendment No. 2 |              |
| <b>CITY OF LACEY</b><br>PO Box 3400<br>Lacey, WA 98509                                                                        | Date:                                                               | July 9, 2020 |

## INTERAGENCY AMENDMENT

Between

CITY OF LACEY

And

WASHINGTON STATE DEPARTMENT OF ENTERPRISE SERVICES

The parties to this Amendment, the Department of Enterprise Services, Energy Program, hereinafter referred to as “DES”, and City of Lacey, hereinafter referred to as the “CLIENT AGENCY”, hereby amend the Agreement as follows:

1. **TERM.** The term of the agreement commences March 12, 2020, and ending on **December 31, 2024** unless altered or amended as provided herein.
2. **STATEMENT OF WORK; COMPENSATION.** Energy Program shall provide the following services, for the following compensation, to Client Agency.
  - a. **SERVICES:** DES shall furnish the necessary personnel and services and otherwise do all things necessary for or incidental to the performance of the work set forth in Attachment “A” and Attachment “C”, attached hereto and incorporated herein by reference. Unless otherwise specified, DES shall be responsible for performing all fiscal and program responsibilities as set forth in Attachment “A” and Attachment “C”.

Energy/Utility Conservation projects shall be authorized by Amendment to this Agreement.

2a.1 Lacey Community Center HVAC outlined in the Sunset Air, Inc. Energy Services Proposal dated January 23, 2020. Project No. 2020-055

**2a.2 Lacey SPSCC Building 2 Retrofit outlined in the Sunset Air, Inc. Energy Services Proposal dated July 1, 2020. Project No. 2020-524**

- b. **COMPENSATION.** Compensation under this Agreement shall be by Amendment to this Agreement for each authorized project. Each Amendment will include a payment schedule for the specific project.
  - i. Project Management Services (Attachment A): For Project Management Services provided by DES, the CLIENT AGENCY will pay DES a Project Management Fee for

services based on the total project value per Project Management Fees Schedule set forth in Attachment “B”.

- ii. Termination Fee: If the CLIENT AGENCY after authorizing an investment grade audit and Energy Services Proposal, decides not to proceed with an Energy/Utility Conservation project that meets the CLIENT AGENCY’s cost effective criteria, then the CLIENT AGENCY will be charged a Termination Fee per Attachment “B”. The Termination Fee will be based on the estimated Total Project Value outlined in the Energy Audit and Energy Services Proposal prepared by the Energy Services Company (ESCO).
  - iii. Measurement & Verification Services (Attachment C): If measurement and verification services beyond the first three years following the Notice of Commencement of Energy Services are requested by the CLIENT AGENCY, and provided by DES under Attachment “C” of this Agreement, the CLIENT AGENCY will pay DES \$2,000.00 annually for each year that monitoring and verification services are provided.
- c. PAYMENT OF ESCO SERVICES. Compensation for services provided by the ESCO shall be paid directly to the ESCO by the CLIENT AGENCY, after DES has reviewed, recommended approval, and sent the invoices to the CLIENT AGENCY for payment.

2c.1 Energy Project Management Fee for the work described in Section 2a.1 is \$38,300.00. Anticipated billing date for this Amendment is December 8, 2020. Project No. 2020-055

**2c.2 Energy Project Management Fee for the work described in Section 2a.2 is \$62,500.00. Anticipated billing date for this Amendment is January 1, 2021. Project No. 2020-524**

**The new total Agreement value is \$100,800.00.**

Sections d. through e. terms and conditions of the original Agreement remain in full force and effect.

### **3. INVOICES; BILLING.**

- a. BILLING PROCEDURE. Energy Program shall submit a single invoice to the CLIENT AGENCY upon substantial completion of each authorized project, unless a project specified a Special Billing Condition in the Amendment. Substantial completion of the project will include the delivery and acceptance of the notice of commencement of energy savings issued by the ESCO. Each invoice will clearly indicate that it is for the services rendered in performance under this Agreement and shall reflect this Agreement and Amendment number. Energy Program will invoice for any remaining services within 60 days of the expiration or termination of this Agreement.
- b. PAYMENT PROCEDURE. The CLIENT AGENCY shall pay all invoices received from the Energy Program within 90 days of receipt of properly executed invoice vouchers. The

CLIENT AGENCY shall notify DES in writing if the CLIENT AGENCY cannot pay an invoice within 90 days.

- c. BILLING DETAIL. Each invoice submitted to Client Agency by Energy Program shall include information as is necessary for Client Agency to determine the exact nature of all expenditures. At a minimum, the invoice shall reference this Agreement and include the following:

- The date(s) such services were provided
- Brief description of the services provided
- Total invoice amount

- d. BILLING ADDRESS. Invoices shall be delivered to Client Agency electronically.

All sections above have been fully amended and are shown in their entirety.

All other terms and conditions of this Agreement remain in full force and effect. The requirements of RCW 39.34.030 are satisfied by the underlying Agreement and are incorporated by reference herein.

Each party signatory hereto, having first had the opportunity to read this Amendment and discuss the same with independent legal counsel, in execution of this document hereby mutually agree to all terms and conditions contained herein, and as incorporated by reference in the original Agreement.

**City of Lacey**

**Department of Enterprise Services  
Energy Program**

---

---

Title Date

---

Roger A. Wigfield, PE  
Energy Program Manager

---

Title Date

K6450IAAamd2rw

## **ATTACHMENT A – OF WORK**

Energy/Utility Conservation Projects

### **PROJECT MANAGEMENT SERVICES**

Statewide Energy Performance Contracting Program

Energy Program will provide the following project management services for each specific project for the CLIENT AGENCY. Each individual project shall be authorized by Amendment to this Agreement.

1. Assist the CLIENT AGENCY in the selection of an Energy Service Company (ESCO) consistent with the requirements of RCW 39.35A for local governments; or 39.35C for state agencies and school districts.
2. Assist in identifying potential energy/utility conservation measures and estimated cost savings.
3. Negotiate scope of work and fee for ESCO audit of the facility(s).
4. Assist in identifying appropriate project funding sources and assist with obtaining project funding.
5. Assist in negotiating the technical, financial and legal issues associated with the ESCO's Energy Services Proposal.
6. Review and recommend approval of ESCO energy/utility audits and Energy Services Proposals.
7. Provide assistance during the design, construction and commissioning processes.
8. Review and recommend approval of the ESCO's invoice vouchers for payment.
9. Assist with final project acceptance.
10. Provide other services as required to complete a successful energy performance contract.

## ATTACHMENT B - Fee Schedule

2019-21 Interagency Reimbursement Costs  
for Project Management Fees to Administer Energy/Utility Conservation Projects

| <u>TOTAL PROJECT VALUE</u>   | <u>PROJECT<br/>MANAGEMENT FEE</u> | <u>TERMINATION</u> |
|------------------------------|-----------------------------------|--------------------|
| 5,000,001.....6,000,000..... | \$68,800.....                     | 25,700             |
| 4,000,001.....5,000,000..... | 67,700.....                       | 25,400             |
| 3,000,001.....4,000,000..... | 66,700.....                       | 25,000             |
| 2,000,001.....3,000,000..... | 62,500.....                       | 23,400             |
| 1,500,001.....2,000,000..... | 58,300.....                       | 21,800             |
| 1,000,001.....1,500,000..... | 51,600.....                       | 19,300             |
| 900,001. ... 1,000,000.....  | 43,800.....                       | 16,400             |
| 800,001.....900,000.....     | 41,300.....                       | 15,400             |
| 700,001.....800,000.....     | 38,300.....                       | 14,400             |
| 600,001.....700,000.....     | 36,500.....                       | 13,700             |
| 500,001.....600,000.....     | 33,800.....                       | 12,600             |
| 400,001.....500,000.....     | 30,200.....                       | 11,300             |
| 300,001.....400,000.....     | 25,800.....                       | 9,700              |
| 200,001.....300,000.....     | 20,700.....                       | 7,700              |
| 100,001.....200,000.....     | 14,400.....                       | 5,400              |
| 50,001.....100,000.....      | 7,800.....                        | 3,500              |
| 20,001.....50,000.....       | 4,200.....                        | 2,000              |

The project management fee on projects over \$6,000,000 is 1.15% of the project cost. The maximum DES termination fee is \$25,700.

1. These fees cover project management services for energy/utility conservation projects managed by DES's Energy Program.
2. Termination fees cover the selection and project management costs associated with managing the ESCO's investment grade audit and energy service proposal. No termination fee will be charged unless the CLIENT AGENCY decides not to proceed to construction based on an energy services proposal that identifies projects that met the CLIENT AGENCY'S cost effectiveness criteria.
3. If the project meets the CLIENT AGENCY's cost effectiveness criteria and the CLIENT AGENCY decides not to move forward with a project, then the CLIENT AGENCY will be invoiced per Attachment B Termination or \$25,700.00 whichever is less. If the CLIENT AGENCY decides to proceed with the project then the Agreement will be amended per Attachment B for Project Management Fee.
4. If the audit fails to produce a project that meets the CLIENT AGENCY's established Cost Effectiveness Criteria, then there is no cost to the CLIENT AGENCY and no further obligation by the CLIENT AGENCY.

## **ATTACHMENT C – SCOPE OF WORK**

Energy/Utility Conservation Projects

### **MEASUREMENT & VERIFICATION SERVICES**

Statewide Energy Performance Contracting Program

If requested DES will provide the following measurement and verification services following the Notice of Commencement of Energy Savings by the ESCO for the specific Client Agency project:

1. Review the ESCO's annual Measurement and Verification (M&V) report for completeness and accuracy. Review any ESCO guarantee compared to reported results and resolve differences, if needed. Review and recommend approval of any ESCO invoice vouchers for payment by the Client Agency.
2. Where necessary, review Client Agency facility operations including any changes in operating hours, changes in square footage, additional energy consuming equipment and negotiate changes in baseline energy use with the ESCO and the Client Agency that may impact achieved energy savings.
3. Attend a meeting or meetings with the Client Agency and the ESCO to review and discuss the annual M&V report.



STATE OF WASHINGTON  
DEPARTMENT OF ENTERPRISE SERVICES

1500 Jefferson St. SE, Olympia, WA 98501  
PO Box 41476, Olympia, WA 98504-1476

July 9, 2020

TO: Ashley Smith, City of Lacey

FROM: Rachel Walters, Contracts Specialist, (360) 407-8029

RE Agreement No. 2020-524 A (1), Amendment No. 2  
M&V Agreement No. 2020-524 B (2)  
Contract No. 2020-524 G (1-1)  
Lacey SPSCC Building 2 Retrofit

IAA No. K6450

Sunset Air, Inc.

SUBJECT: Funding Approval

The Dept. of Enterprise Services (DES), Energy Program, requires funding approval for the above referenced contract documents. The amount required is as follows (see page 2 for funding detail):

|                                                            |                        |
|------------------------------------------------------------|------------------------|
| ESCO Audit                                                 | \$ 123,560.00*         |
| ESCO Professional Services Total                           | \$ 410,889.28          |
| ESCO Measurement and Verification Total                    | \$ 743.92              |
| ESCO Construction Total                                    | \$ 1,891,507.46        |
| DES Energy Program Project Management Services Total (IAA) | \$ 62,500.00           |
| <b>Total Funding</b>                                       | <b>\$ 2,489,200.66</b> |

**In accordance with the provisions of RCW 43.88, the signature affixed below certifies to the DES Energy Program that the above identified funds are appropriated, allotted or that funding will be obtained from other sources available to the using client/agency. The using/client agency bears the liability for any issues related to the funding for this project**

By \_\_\_\_\_ Date \_\_\_\_\_  
Name / Title

Please sign and return this form to E&AS. If you have any questions, please call me.

Agreement No. 2020-524 A (1), Amendment No. 2

M&V Agreement No. 2020-524 B (2)

Contract No. 2020-524 G (1-1)

### Funding Approval Detail

#### **ESCO Professional Services**

|                                                                   |           |                   |
|-------------------------------------------------------------------|-----------|-------------------|
| Energy Audit and Energy Services Proposal                         | \$        | 123,560.00        |
| *Audit & Energy Services Proposal from Authorization 20-524 A (1) | \$        | (123,560.00)      |
| Design and Implementation of Energy Conservation Measures         | \$        | 364,053.60        |
| Apprenticeship Incentive                                          | \$        | 914.08            |
| <u>Sales Tax (9.4%) (Includes tax on Audit proposal)</u>          | <u>\$</u> | <u>45,921.60</u>  |
| <b>Total</b>                                                      | <b>\$</b> | <b>410,889.28</b> |

#### **ESCO Measurement and Verification**

|                                       |           |               |
|---------------------------------------|-----------|---------------|
| First Year Measurement & Verification | \$        | 680.00        |
| <u>Sales Tax (9.4%)</u>               | <u>\$</u> | <u>63.92</u>  |
| <b>Total</b>                          | <b>\$</b> | <b>743.92</b> |

#### **ESCO Construction**

|                                      |           |                     |
|--------------------------------------|-----------|---------------------|
| ESCO Contract Amount                 | \$        | 1,650,376.32        |
| Sales Tax (9.4%)                     | \$        | 155,135.37          |
| <u>Contingency Amount (with Tax)</u> | <u>\$</u> | <u>85,995.77</u>    |
| <b>Total</b>                         | <b>\$</b> | <b>1,891,507.46</b> |

#### **DES Energy Program Project Management Services**

|                                                                   |           |                  |
|-------------------------------------------------------------------|-----------|------------------|
| <u>Project Management Fee from IAA No. K6450, Amendment No. 2</u> | <u>\$</u> | <u>62,500.00</u> |
| <b>Total</b>                                                      | <b>\$</b> | <b>62,500.00</b> |

Note: Items and dollar values shown in a lighter color shade have been approved via previous funding authorizations and are shown for informational purposes only.



# SPSCC LACEY B2

## Energy Services Proposal

**Date: July 1, 2020**

**DES Project Number: 2020-524**

# **Table of Contents**

|                                                           |           |
|-----------------------------------------------------------|-----------|
| <b>PROJECT CONTACT LIST.....</b>                          | <b>4</b>  |
| <b>SECTION 1 – EXECUTIVE SUMMARY.....</b>                 | <b>5</b>  |
| 1.1 Overview.....                                         | 5         |
| 1.2 Combined Project Description.....                     | 5         |
| 1.3 Combined Project Schedule.....                        | 5         |
| 1.4 Summary of Combined Financials.....                   | 5         |
| 1.5 Guarantees.....                                       | 6         |
| 1.6 Project Specific Diverse Business Inclusion.....      | 6         |
| 1.7 Conclusion.....                                       | 7         |
| <b>SECTION 2 – GENERAL PROJECT SCOPE.....</b>             | <b>8</b>  |
| 2.1 Energy Conservation/Facility Improvement Summary..... | 8         |
| 2.2 Subcontracting.....                                   | 10        |
| 2.3 Project Schedule.....                                 | 10        |
| 2.4 Work Plan.....                                        | 10        |
| <b>SECTION 3 – ENERGY COST SAVINGS GUARANTEES.....</b>    | <b>11</b> |
| 3.1 Guarantee Overview.....                               | 11        |
| 3.2 Measurement & Verification.....                       | 11        |
| 3.3 Utility Rates.....                                    | 12        |
| 3.4 Indoor Comfort Standards.....                         | 12        |
| 3.5 On-Going Owner Responsibilities.....                  | 13        |
| 3.6 Non-Performance Guarantee.....                        | 14        |
| 3.7 Facility Alterations.....                             | 14        |
| <b>SECTION 4 – PROJECT FINANCIALS.....</b>                | <b>15</b> |
| 4.1 Maximum Project Allowable Cost.....                   | 15        |
| 4.2 Maximum Project Cost Defined.....                     | 15        |
| 4.3 Measurement & Verification Services.....              | 16        |
| 4.4 Construction Contingency.....                         | 17        |
| 4.5 Allowances.....                                       | 17        |
| 4.6 ESCO Payments.....                                    | 17        |
| 4.7 Reconciliation of Labor & Materials Costs.....        | 18        |
| 4.8 Cost Accountability.....                              | 19        |
| 4.9 Financing.....                                        | 19        |
| 4.10 Termination Value.....                               | 20        |
| 4.11 Terms of Agreement.....                              | 20        |
| 4.12 Insurance & Bonding.....                             | 20        |
| 4.13 Self-Performance Option.....                         | 21        |
| Table 4.1 - Budget Summary Breakdown: Energy Project..... | 22        |
| Table 4.2 - Cash Flow Analysis.....                       | 23        |

## **Table of Contents**

|                                                                         |           |
|-------------------------------------------------------------------------|-----------|
| Table 4.3 - State Treasurer Loan Financial Table.....                   | 24        |
| Table 4.4 - Schedule of Values.....                                     | 25        |
| <b>APPENDIX A – FACILITY.....</b>                                       | <b>26</b> |
| <b>A.1 – PROJECT SCOPE.....</b>                                         | <b>27</b> |
| A.1.1 Facility Summary.....                                             | 27        |
| A.1.2 Detailed Scope of Work.....                                       | 28        |
| <b>A.2 - ENERGY COST SAVINGS GUARANTEES TABLES.....</b>                 | <b>30</b> |
| A.2.1 Finalized EEM’s & Costs Table.....                                | 30        |
| A.2.2 Selected EEM’s & Costs Table.....                                 | 31        |
| A.2.3 Energy Savings Guarantee Table.....                               | 32        |
| A.2.4 M & V Plan Table.....                                             | 33        |
| A.2.5 Utility Base Rate Table.....                                      | 34        |
| <b>A.3 – EXHIBITS.....</b>                                              | <b>35</b> |
| A.3.1 Baseline Conditions.....                                          | 35        |
| A.3.2 Data Logger Analysis.....                                         | 35        |
| A.3.3 Energy Model Analysis.....                                        | 35        |
| <b>A.4 – MEASUREMENT &amp; VERIFICATION.....</b>                        | <b>36</b> |
| A.4.1 Baseline Year Utility Usage.....                                  | 36        |
| A.4.2 Regression Analysis Model.....                                    | 36        |
| A.4.3 Energy Savings Estimates and Guarantees.....                      | 37        |
| <b>APPENDIX B – ENERGY LIFECYCLE COST ANALYSIS.....</b>                 | <b>38</b> |
| <b>APPENDIX C – TRAVEL REIMBURSEMENT PER LABOR UNION AGREEMENT.....</b> | <b>42</b> |

## PROJECT CONTACT LIST

**ESCO:** Ryan Pantier – Sunset Air, [rip@sunsetair.com](mailto:rip@sunsetair.com), 360-870-0629  
Joe Bettridge – Sunset Air, [jab@sunsetair.com](mailto:jab@sunsetair.com), 360-791-1535

**DES:** Donna Albert – DES, [donna.albert@des.wa.gov](mailto:donna.albert@des.wa.gov), 360-489-2420

**CLIENT AGENCY:** Steve Kirkman – City of Lacey, [SKIRKMAN@ci.lacey.wa.us](mailto:SKIRKMAN@ci.lacey.wa.us),  
360-456-7788  
Ashley Smith – City of Lacey, [acsmith@ci.lacey.wa.us](mailto:acsmith@ci.lacey.wa.us), 360-456-7788

**UTILITY** (If incentives): Tyson Schmitt – PSE, [Tyson.Schmitt@pse.com](mailto:Tyson.Schmitt@pse.com), 360-324-9592

# **Executive Summary**

## **1.1 Overview**

Sunset Air, Inc. is pleased to present this Energy Services Proposal to the Department of Enterprise Services Energy Program and the City of Lacey for the SPSCC Lacey building 2 facility improvements.

This proposal presents the framework that Sunset Air, Inc., the City of Lacey, and the Department of Enterprise Services Energy Program will work under through the remainder of this project. This proposal covers the Scope of work, Savings Guarantee, financials, and other aspects of the project.

This service includes Engineering, Construction, Commissioning, and Measurement and Verification. This proposal includes the first year of measurement and verification in order to verify building performance is in accordance with projected annual energy savings.

## **1.2 Combined Project Description**

The SPSCC Lacey B2 energy savings project has been developed through the ESPC process and is meant to provide energy savings, increased comfort, and an overall better working environment. This project is going to provide a significantly improved and updated building with long term use for the City, VA, and SPSCC.

This project includes envelope upgrades for the entire building including additional insulation at the ceiling/roof and high efficiency windows. The mechanical system is being replaced and new zone control systems are being installed to better match the facility layout. High efficiency plumbing fixtures are being installed for all of the restrooms. Upgraded LED lighting is being installed both inside and outside the building. The interior of the building is going to be reconfigured to better meet tenant needs and improve ADA accessibility.

## **1.3 Combined Project Schedule**

|                               |                   |
|-------------------------------|-------------------|
| Anticipated NTP               | <b>07/15/2020</b> |
| Engineering Design Completion | <b>08/01/2020</b> |
| Construction Start            | <b>08/01/2020</b> |
| Substantial Completion        | <b>12/31/2020</b> |
| Final Completion              | <b>01/31/2021</b> |

## **1.4 Summary of Combined Financials**

Section 4 of this proposal provides a detailed explanation of the energy savings and construction costs of the project. The guaranteed maximum price for this project is **\$2,218,190.72**. Including Sales Tax and DES project management fees, but before utility

## Executive Summary

incentives, the final project cost for the base project is estimated at **\$2,489,200.66**. Simple payback for this project is not a critical decision factor for the owner.

This project will have a variety of benefits including:

- An overall initial annual energy savings of **\$1,576**.
- Maintained or increased occupant comfort and well-being which creates a more productive learning/work environment.

### 1.5 Guarantees

Sunset Air, Inc. guarantees that the project cost will not exceed the maximum price of **\$2,218,190.72**. This excludes sales tax, DES project management fees, and utility rebates/incentives.

In addition, Sunset Air, Inc. guarantees the following energy savings for the project: **14,329** kWh in electrical energy and **17,044** CCF of water annually.

### 1.6 Project Specific Diverse Business Inclusion

Sunset is committed to reaching out to DB firms and to help the State of Washington meet its goals for DB utilization. That said, Sunset self-performs a large percentage of the work under our ESCO contract (on average about 85 percent), which limits Sunset's ability to meet the state's percentage goals. However, of the subcontracted work that Sunset does not perform, Sunset's goal is to have one third (33%) of that work performed by DB contractors. See project specific goal percentages below:

| State Certification Category | State of Washington / Agency Goals | Anticipated Percentage of Non-Self Performed Scope * | Anticipated Percentage of Total Contract Amount Assuming:                           | 15% | Subcontracted Work (Sunset's Goals) | Project Specific Goal *** |
|------------------------------|------------------------------------|------------------------------------------------------|-------------------------------------------------------------------------------------|-----|-------------------------------------|---------------------------|
|                              |                                    |                                                      | (Will vary from project to project based upon the amount of subcontracted work.) ** |     |                                     |                           |
| Minority-owned business      | 10%                                | 12%                                                  | 1.8%                                                                                |     |                                     | 0.0%                      |
| Women-owned business         | 6%                                 | 7%                                                   | 1.1%                                                                                |     |                                     | 0.0%                      |
| Veteran-owned business       | 5%                                 | 6%                                                   | 0.9%                                                                                |     |                                     | 0.0%                      |
| Small/ mini/ micro business  | 5%                                 | 8%                                                   | 1.2%                                                                                |     |                                     | 4.8%                      |
| Total                        | 26%                                | 33%                                                  | 5.0%                                                                                |     |                                     | 4.8%                      |

\* = This represents Sunset's Diverse Business Inclusion goal for subcontracted work as represented in our Diverse Business Inclusion plan.

\*\* = This represents Sunset's overall Diverse Business Inclusion goal based on X% (in purple cell) of subcontracted work on the project (represents X% multiplied by the values in the previous column).

\*\*\* = This represents the Diverse Business Inclusion for this specific project based on the actual subcontracted work.

Based on the scope of work for this project, only the work being performed by Capital Electric meets the requirements for small business. That is reflected in the 4.8% of the construction costs. All other work is being performed by contractors that do not meet the diverse business requirements.

## **Executive Summary**

### **1.7 Conclusion**

This project provides an excellent opportunity for the City of Lacey to upgrade the SPSCC Lacey campus building 2 while saving energy. Sunset Air, Inc. is looking forward to working with the City of Lacey and the Department of Enterprise services in making this project a success.

## **General Project Scope**

### **2.1 Energy Conservation / Facility Improvement Summary**

The following provides a general summary of work to be performed. For a more detailed scope of work, please reference Attachment A-“Detailed Scope of Work” in the appendices.

The following services are to be provided by Sunset Air, Inc.:

1. Energy Audit – the energy audit has been completed. The detailed results are included in section 3 of each Appendix.
2. Engineering Design – Sunset Air, Inc. will create all the necessary detailed drawings that will be used for permitting, bidding, and construction purposes. All construction changes/modifications will be documented on as-built record drawings, which will be provided to the City of Lacey at the end of construction.
3. Construction – Sunset Air, Inc. will provide all services necessary for the completion of the engineered design including permits, bond, insurance, and all necessary fees required for this project. Construction scope includes start-up, testing, balancing, and Operations and Maintenance Manuals.

Sunset Air, Inc. will provide a commissioning plan for review and acceptance by all parties. The commissioning plan will confirm complete functionality of the system being installed.

Sunset Air, Inc. will either self-perform this work or subcontract it out to a qualified party. In either instance, the results will be approved by Sunset Air, DES, and the City of Lacey.

Upon completion of the project, Sunset Air, Inc. will notify the City of Lacey and DES and will also provide a “Notice of Commencement of Energy Savings.” (must be received by DES and client agency within 30 days of issue date)

4. Construction Management – Sunset Air, Inc. will provide all construction management services including communications with the City of Lacey about construction schedules and coordination with tenants during construction. The City of Lacey will provide direction and advice necessary to complete the project with minimal interruption to employees.
5. Training – Sunset Air, Inc. will provide ongoing employee/staff training during construction and training sessions to the City of Lacey’s maintenance staff upon completion of construction. This will assure that the maintenance staff can properly operate and maintain the equipment and systems.

## **General Project Scope**

6. Measurement and Verification – Sunset Air, Inc. will provide measurement and verification of all equipment and systems installed per the engineering documents over the course of the first year. This will verify the energy savings. At the request of the City of Lacey, Sunset Air can provide on-going Measurement and Verification.
7. Maintenance – Following the completion of this project, the City of Lacey shall be responsible for providing all maintenance services and adjustments to the equipment so the equipment will continue to perform in the manner and to the extent set forth in this proposal. Sunset Air, Inc. shall not be responsible for equipment after the project acceptance by the City of Lacey, except that Sunset Air, Inc. shall provide warranty service, including corrections or repairs necessary to provide the proposed performance.
8. Warranty – Sunset Air, Inc. will warrant equipment for one year following acceptance of the Notice of Commencement of Energy Savings by the City of Lacey. All specific equipment warranties shall be passed on to the City of Lacey.
9. Encountered Hazardous Waste – Sunset Air, Inc. has not gone through the thorough process of finding all exposed hazardous waste including lead and asbestos. All hazardous waste that is uncovered and required to be removed during the construction process, above and beyond what has been identified by the good faith survey, will be paid for through additional owner funds. Additional owner funds will only be utilized through the use of a change order. A good faith survey was performed, and an abatement proposal has been procured. However, there is always potential for more hazardous waste to be discovered after demo is complete on the building.
10. Utility Incentives/Rebates - Sunset Air, Inc. has identified and included the projected utility incentives and rebates in this Energy Services Proposal. Sunset Air, Inc. will prepare and submit all required paperwork, analysis, cost estimates, etc. in the format, detail, and on schedule as required by the utility in order to obtain said incentives and rebates for the City of Lacey. In the event any or all such items must be submitted directly by the City of Lacey, the Dept. of Enterprise Services and/or other entities, Sunset Air, Inc. shall prepare complete packages for signature and submittal by such entity. Sunset Air, Inc. will also monitor the process to assure all steps are completed ensuring that the City of Lacey will receive the stated rebates and incentives.
11. Federal Requirements - All relevant federal general conditions and other requirements associated with work and improvements funded by the Federal

## **General Project Scope**

Department of Veterans Affairs (VA) have been addressed in the project's design and scope of services.

### **2.2 Subcontracting**

Sunset Air, Inc. may subcontract any portion of the Energy Audit, engineering design, construction management, startup, and training portion of this contract to qualified firms. This is subject to the review and acceptance by DES and the City of Lacey. Selections of main subcontractors to Sunset Air, Inc. shall also be subject to prior review by DES and City of Lacey. The team of contractors have been involved throughout the course of the audit and have been approved by Sunset Air, DES, and the City of Lacey.

### **2.3 Project Schedule**

The project target milestones are listed below:

|                               |                   |
|-------------------------------|-------------------|
| Anticipated NTP               | <b>07/15/2020</b> |
| Engineering Design Completion | <b>08/01/2020</b> |
| Construction Start            | <b>08/01/2020</b> |
| Substantial Completion        | <b>12/31/2020</b> |
| Final Completion              | <b>01/31/2021</b> |

Total project duration: **200** days.

### **2.4 Work Plan**

Prior to the commencement of construction, Sunset Air, Inc. will provide a detailed construction sequence for DES and the City of Lacey to review and accept. The work plan shall address such items as construction working hours, safety items, working in occupied areas, temporary protection related to construction debris, and any other site-specific concerns.

# **Energy Cost Savings and Guarantees**



## **3.1 Guarantee Overview**

Sunset Air, Inc. is prepared to guarantee any portion of a project over which it has direct control. Where Sunset Air, Inc. does not have direct control (such as unscheduled building usage after hours), we are prepared to work with the customer to devise a method of Measurement and Verification (M&V), which will provide the highest degree of assurance that the energy cost savings exist.

The cost of the first year of Measurement and Verification is included in the project scope. The cost of On-going Measurement and Verification in years 2 and beyond is at the discretion of the City of Lacey. Sunset Air, Inc. will continue the guarantee to project savings as long as the City of Lacey continues the Measurement and Verification services as described herein. If the City of Lacey decides to cancel the Measurement and Verification services, the guarantee will also be discontinued.

## **3.2 Measurement & Verification**

1. Energy savings calculations are based upon the difference between the baseline building energy usage and the proposed energy usage:
  - a. Baseline. The baseline refers to the existing operating characteristics that were used to calculate energy cost savings. The baseline operating characteristics, including system performance and operational times are provided in **Table A.2.1** in Appendix A. In general, all parties acknowledge the baseline associated with any specific measure has been derived from the following sources:
    - i. Actual operating information gathered through field observation, measurement, and data logging.
    - ii. Owner provided information occupancy hours, specialty operation periods, and assumed temperature control
  - b. Proposed. The proposed operating criteria which were used for savings calculations are provided in **Table A.2.2** in Appendix A. Systems must be operated per the proposed criteria in order to ensure energy cost savings are realized. Sunset Air, Inc. will provide the initial programming, start-up, commissioning, and owner training needed to guarantee the energy savings. The City of Lacey acknowledges their responsibility to ensuring that these criteria are maintained in order for the project to realize the energy savings. The City of Lacey's required maintenance program has been further elaborated in the "On-Going Owner Responsibilities" section.

## **Energy Cost Savings and Guarantees**



2. Measurement and Verification Plan: **Table A.2.4** in Appendix A. The Measurement and Verification plan lays out specific criteria and tasks performed by Sunset Air, Inc. in order to ensure that systems are performing properly and the energy savings guarantee has continually been met. The savings shall be deemed as met upon positive verification that each particular energy efficiency measure is performing as originally designed. The site specific Measurement And Verification plan will be set as follows:
  - a. Initial M&V Report. Sunset Air, Inc. will be tracking Measurement and Verification on an on-going basis after final completion and commencement of energy savings for the project. See **Table A.2.4** under "Post Construction" for the complete scope of the Initial Measurement and Verification.
  - b. Annual M&V Report. The annual Measurement & Verification report shall be completed on an annual basis starting one year after the final completion and commencement of energy savings. See **Table A.2.4** under "Annual" for the complete scope of the Initial Measurement and Verification.
  - c. Years 2–10. On-going Reporting: At this point, this proposal does not contain any guarantee past Year 1.

### **3.3 Utility Rates**

Utility Rate: The utility rates used to calculate energy savings are the same rates that have been paid by the City of Lacey in the most current year (base utility rate) of the Investment Grade Audit.

### **3.4 Indoor Comfort Standards**

The following Indoor Comfort Standards are required to be met in order to ensure the comfort of staff and clients. These Standards have been incorporated into the baseline and proposed energy usage and are critical to guaranteeing the City of Lacey's energy savings

#### **HVAC COMFORT**

Sunset Air, Inc. has provided Heating, ventilating, and air conditioning (HVAC) systems that will maintain the indoor comfort listed below. This indoor comfort standard only applies to areas within the facility that Sunset Air has made changes to and has direct control over. HVAC comfort conditions cannot be guaranteed when operable windows or doors are open.

#### **Indoor Conditions:**

## **Energy Cost Savings and Guarantees**



### Occupied

Winter Heating Set Point – 70 degrees F

Summer Cooling Set Point – 74 degrees F (where mechanical cooling systems are employed)

### Unoccupied:

Minimum - 62 degrees F

Maximum - 80 degrees F (where mechanical cooling systems are employed)

### Minimum outside air per occupant:

In accordance with ANSI/ASHRAE Standard 62.1-2016, standards and the International Mechanical Code as adopted by the Washington State Building Code Council effective July 1 2016.

### Illumination Levels:

Illumination levels shall be as recommended by the Illuminating Engineer's Society of North America (IESNA). Design calculation shall be made for each space, using an 80% lamp depreciation/maintenance factor.

Average illumination levels shall be checked in each space after 100 operating hours. Average illumination shall not be less than 12.5% above the design level.

For primary and secondary schools, illumination will also meet 1997 WAC 246-366-120 lighting requirements.

## **3.5 On-Going Owner Responsibilities**

The City of Lacey shall provide the following services as a part of this project. In the event that these services are not provided, energy savings and associated guarantees will be modified to reflect the associated impact.

1. Provide Sunset Air, Inc. with all energy related utility bills including, gas, electric, and water on a quarterly basis through the Measurement & Verification period.
2. Maintain all equipment per manufacturer's recommendations and proposed maintenance schedule.

## **Energy Cost Savings and Guarantees**



3. Maintain all sequence of operations and performance criteria related to installed systems as proposed and designed.
4. Allow Sunset Air, Inc. access to all Energy Management Control Systems for the purpose of trend logging and temperature/schedule verifications
5. Provide other EEM specific on-going responsibilities as provided in **Table A.2.4**.
6. The City of Lacey shall notify Sunset Air, Inc. in writing with regards to any changes or alterations to the building that will affect energy usage. This notification should be provided within two weeks of the change. This includes occupancy or use changes, computer load or other load changes, scheduling changes, and sequence of operations changes.

### **3.6 Non-Performance Guarantee**

In the event the equipment performance is not met, Sunset Air, Inc. accepts responsibility for additional energy used by the equipment as a result of the reduced performance. Sunset Air will repair or replace equipment as necessary to meet performance/reliability requirements.

### **3.7 Facility Alterations**

There may be certain times where the City of Lacey will need to change the way their facilities are operated. This might include temperature set point adjustment, operational hours changes, or continuous equipment operations. In this event, the City of Lacey agrees to the following:

1. The additional energy costs associated with the extended equipment operation is a cost of the facility alteration, not due to a failure of Sunset Air, Inc. or the equipment they installed.
2. Sunset Air, Inc. shall not be responsible for any increase in energy, maintenance, or any other costs incurred as a result of the extended equipment operation.
3. Savings that have previously been deemed as met as described above in the Measurement & Verification section will continue to be deemed as met.
4. It will be Sunset Air, Inc.'s option make a change to baseline energy in order to account for this change of use at the facility with the approval of DES and the City of Lacey.

## **Project Financials**

### **4.1 Maximum Project Allowable Cost**

Based on the implementation of all of the EEM's/FIM's included herein, Sunset Air guarantees that the Maximum Project Cost will not exceed **\$2,218,190.72**.

The Maximum Project Cost does not include sales tax, DES project management fees, or the potential Utility rebate, which are estimated. With sales tax, and the DES project management fees, the estimated Project Cost will be **\$2,489,200.66**. Sunset Air cannot guarantee the utility incentive.

### **4.2 Maximum Project Cost Defined**

Maximum project costs include the following:

1. Engineering audit, which includes the cost for the preparation of this proposal.
2. Engineering design.
3. Construction management services.
4. Installation of Sunset Air, Inc. Equipment including the following costs as specified in the scope of work:
  - a. All costs paid by Sunset Air for the installation of equipment. This includes costs for subcontractors or Sunset Air personnel for system verification as well as equipment installation.
  - b. Cost of all equipment, materials, supplies, and warranties incorporated in the work.
  - c. Cost of startup, training, system measurement and verification, balancing, and O&M manuals performed by Sunset Air.
  - d. Construction Bonds (including Performance & Payment Bond and excludes retention bonds), Liability Insurance, and Builder's Risk Insurance.
  - e. Costs or rental charges, including transportation and maintenance, of all materials, supplies, equipment, temporary facilities, and hand tools not owned by the workers, which are consumed in the performance of the work. All items used but not completely consumed will be offered to the City of Lacey. If the City of Lacey does not want them, then Sunset Air may retain them.
  - f. All travel costs for Sunset Air employees shall be paid in accordance with the labor union agreement (applies to construction employees only), as outlined in **APPENDIX C**. No travel costs are anticipated on this project.

## **Project Financials**

- g. Sales, use, or similar taxes related to the work for which Sunset Air is liable for.
- h. Permit fees, royalties, and deposits lost for causes other than Sunset Air's negligence.
- i. Losses and expenses not compensated by insurance or otherwise, sustained by Sunset Air in connection with the work, provided they have resulted from causes other than the fault or neglect of Sunset Air. Such losses shall include settlements made with the written consent and approval of the Owner. If, however, such loss requires reconstruction and Sunset Air is placed in charge thereof, Sunset Air shall be paid a fee for such services.
- j. Demolition cost and cost of removal of all debris.
- k. Costs incurred due to an emergency affecting the safety of persons and property.
- l. Other costs incurred in the performance of the work if approved in advance in writing by the Owner.
- m. The cost of contingency and an allowance for unforeseen conditions or Owner initiated scope improvements.
- n. Sunset Air fee. This includes Sunset Air's total compensation for personnel, expenses, risks related to the project, overhead, and profit.
- o. Sunset Air shall provide a Schedule of Values that will include all costs related to the installation of Sunset Air's equipment. See TABLE 4.4 - "Construction Schedule of Values/Projected Progress Billings."

### **4.3 Measurement & Verification Services**

No Measurement and Verification Services in years 2-10 have been proposed for this phase of the project. If interested the City of Lacey should inform Sunset Air prior to the beginning of the construction regarding the duration of the M&V that will be required, and a separate proposal will be developed with that ongoing service offering for approval.

## **Project Financials**

### **4.4 Construction Contingency**

A construction contingency of 5.0% of the direct construction costs has been established for this project. The intent of the contingency is for "unforeseen conditions" beyond what was originally estimated. Sunset Air shall not be allowed to mark-up contingency funds expended for items required in the original scope of this project. However, Sunset Air shall be allowed to mark-up items beyond the original scope, which are approved by the Dept. of Enterprise Services and the City of Lacey. All unused construction contingency funds shall be retained by the City of Lacey and shall reduce the overall project cost to the City of Lacey.

### **4.5 Allowances**

Sunset Air may decide to set aside allowances as identified in **Table 4.1 - Budget Summary Breakdown** (at the end of this Section 4) for specific areas of work that have been identified as a potential cost impact but are unable to be determined at this stage. If the allowance is not adequate, the City of Lacey will be notified and Sunset Air will be compensated for any additional costs out of contingency funds. No allowances have been identified for this project at this time.

### **4.6 ESCO Payment**

Sunset Air will progress bill on a monthly basis unless specifically agreed to by Sunset Air, DES, and the City of Lacey.

Progress billing will be accompanied with a total project completion percentage to date. Furthermore, the progress billing will include a line item breakdown of all EEMs. The "Application and Certificate for Payment on Contract" page for each monthly bill will include line items summarizing the pricing breakdown illustrated in **Table 4.1 - Budget Summary Breakdown: Energy Project**.

1. Construction Billings - Construction progress billing will be based on actual construction work completed to date and will be substantiated with contractor invoices and/or backup for Sunset Air field supervision, field office costs, and construction project travel costs.
2. **Table 4.1** ESCO Fees will be billed per the following:
  - a. IGA Fee. The IGA Fee will be billed after construction commences.
  - b. Design Fees. Design Fees will be billed after construction drawings are approved and construction commences, either substantiated by

## **Project Financials**

consultant invoices or backup for Sunset Air design costs. Any remaining design fees will be billed upon approval of the final construction contract invoice.

- c. Construction Administration Fee. Construction Administration Fees will be progress billed as a percentage of the total completed contract value to date per Total Construction Cost line item in **Table 4.1**.
- d. OH&P Fees. OH&P fees will be progress billed as a percentage of the total completed contract value to date per Total Construction Cost line item in **Table 4.1**. Any remaining OH&P will be billed upon approval of the final construction and after all O&M manuals have been accepted by the Owner.
- e. Measurement and Verification Fee. The M&V fee will be billed in separate, equal installments and will be billed upon submission of the annual M&V reports. For an estimated schedule of values for the progress billings see **Table 4.4 – Schedule of Values**.
- f. Terms. Terms are net 30 days from the date of receipt by the City of Lacey of a properly completed invoice.
- g. Finance Charges on Late Payments. Late progress payments on invoices for which Sunset Air has paid the subcontractor(s) and/or vendor(s) shall be subject to interest charges. The interest rate applied shall be 1.0% per month. Interest shall be assessed beginning on a) the date of payment to the vendor/sub by Sunset Air, or b) 30 days after a properly completed invoice is received by the DES Project Manager, whichever is the later date.

### **4.7 Reconciliation of Labor & Materials Costs**

The guaranteed maximum project allowable cost is based on firm and estimated labor and material costs. In the event that actual Labor & Material costs may vary from this, the following procedures are established to reconcile this difference:

- If the total project cost at completion exceeds the guaranteed amount, the additional costs will be absorbed by Sunset Air at their sole expense.
- If the total project costs at completion are less than the guaranteed amount, then the savings will be retained by the City of Lacey. Sunset Air will issue a deductive COP to remove the savings amount from the contract value.

## **Project Financials**

The following table outlines whether the Labor and Material costs are Estimated or Firm at the time of this Proposal. It further defines the method for providing firm costs during the pre-construction period (after authorization of this Energy Services Proposal). The table also identifies which items are subject to reconciliation at the end of the project. Typically, costs that are estimated in this proposal and then bid or quoted during the pre-construction phase are reconciled at the end of the project. The items that are firm in the proposal will be firm throughout the project. End of Project reconciliation shall be through subcontractor invoice substantiation.

| <b>L&amp;M Costs</b> | <b>As Proposed in ESP</b> | <b>Pre-Construction Costing</b> | <b>End of Project Reconciled</b> | <b>Comments</b> |
|----------------------|---------------------------|---------------------------------|----------------------------------|-----------------|
| Elec                 | Budget                    | Bid                             | Yes                              |                 |
| BAS                  | Budget                    | Bid                             | Yes                              |                 |
| Cx                   | Budget                    | Bid                             | Yes                              |                 |
| Mech                 | Budget                    | Bid                             | Yes                              |                 |
| Other                | Budget                    | Bid                             | Yes                              |                 |
|                      |                           |                                 |                                  |                 |
| ESCO Fees            | Firm - As Scheduled       | Firm - As Scheduled             | No                               |                 |

### **4.8 Cost Accountability**

DES and the City of Lacey shall be allowed access to all the records, books, correspondence, instructions, drawings, receipts, vouchers, memoranda, and similar data relating to this Contract, and Sunset Air shall preserve all such records for a period of six years, or for such longer period as may be required by law, after the final payment.

### **4.9 Financing**

Sunset Air has spent over 40 successful years in the HVAC construction business. This staying power makes it possible to provide and assist with any types of financing needs our customers might require. Sunset Air, Inc. has enjoyed many long standing relationships with vendors. These relationships have assured us the most reasonable pricing with the absolute best manufacturing support. If long-term or construction financing is requested to be provided by Sunset Air, the terms will be fair and equitable dependent on the loan term and perceived risk unique to each project.

**Table 4.2 - Cash Flow Analysis** (p. 23) has been provided to show cash flow analysis for this project based on the loan term. **Table 4.3 - State Treasurer Loan Financing** (p. 24)

## **Project Financials**

and **Table 4.4 – Schedule of Values** (p. 25) have been provided to clearly identify the payments, principal, interest, and ongoing fees required for financing this project.

### **4.10 Termination Value**

Termination value for financing provided through the State Treasurer's LOCAL program shall be determined by program guidelines.

### **4.11 Terms of Agreement**

The Contract shall be effective and binding upon the parties immediately upon its execution and the period from contract execution until the Commencement Date shall be known as the "Interim Period." All energy savings achieved during the interim period will be fully credited to Customer. Excess savings belong fully to Customer and cannot be used to offset future lost savings.

### **4.12 Insurance & Bonding**

Sunset Air shall provide a payment and performance bond and builders Risk Insurance.

For the Purposes of This Agreement, The Bond shall include all labor, materials, and state sales tax. This bond does not include construction contingencies. Certificates of General Liability Insurance will be provided prior to Contract Signing. The City of Lacey shall be named as An Additional Insured on all insurance certificates.

Sunset Air shall provide a payment and performance bond in the amount of 100% of the construction cost, as defined in the Energy Services Agreement Addendum. The amount shall include all authorized changes, or if additional funding is added, and state sales tax. The Bond shall be in the form attached to the Conditions of the Energy Services Agreement. The Contract listed on the bond form shall be the Addendum No. and Agreement No., which incorporates the work, and the "Contract Date" shall be the date of the Addendum. The full and just sum of the Bond shall be as defined above and shall include the actual cost of purchasing and installing Sunset Air's Equipment. The Bond shall specifically exclude coverage for those portions of the Energy Services Agreement and/or Energy Services Agreement Addendum pertaining to design services, energy cost savings guarantee, maintenance guarantee, utility incentives, efficiency guarantees, and any other clauses which do not relate specifically to construction management and supervision of work for purchasing and installing of Sunset Air's Equipment, or for work to be accomplished by the City of Lacey. The Bond shall be with a Surety or Bonding Company that is registered with the State of Washington Insurance Commissioner's Office.

## Project Financials

### 4.13 Self-Performance Option

Sunset Air provides a self-performance option where the contract is developed using a cost-plus structure with a not-to-exceed maximum based upon the guaranteed maximum price in this proposal. This would be an alternative option to putting the project out for bid from various approved subcontractors and selecting from them. Sunset Air uses the following preferred labor rates for this process:

| Energy Services Performance Contracting<br>June 2020 - June 2021 Labor Rates |                 |           |                 |           |
|------------------------------------------------------------------------------|-----------------|-----------|-----------------|-----------|
| Title - Classification                                                       | Published Rates |           | Preferred Rates |           |
|                                                                              | Regular Time    | Overtime  | Regular Time    | Overtime  |
| <b>Service Rates</b>                                                         |                 |           |                 |           |
| Standard Rate                                                                | \$ 137.64       | \$ 206.45 | \$ 125.00       | \$ 187.50 |
| Contract Rate                                                                | \$ 125.39       | \$ 188.09 | \$ 110.00       | \$ 165.00 |
| <b>Construction Field Rates</b>                                              |                 |           |                 |           |
| Controls Programmer                                                          | \$ 234.00       | \$ 351.00 | \$ 200.00       | \$ 300.00 |
| Plumbing/Pipefitter                                                          | \$ 166.07       | \$ 249.10 | \$ 141.94       | \$ 212.91 |
| Foreman                                                                      | \$ 195.07       | \$ 292.61 | \$ 166.67       | \$ 250.01 |
| Sheet Metal                                                                  | \$ 177.34       | \$ 266.01 | \$ 151.52       | \$ 227.28 |
| Electrician                                                                  | \$ 124.17       | \$ 186.26 | \$ 106.00       | \$ 159.00 |
| Warehouse/Driver                                                             | \$ 92.56        | \$ 138.84 | \$ 79.55        | \$ 119.33 |
| Glazier                                                                      | \$ 117.91       | \$ 176.87 | \$ 100.78       | \$ 151.17 |
| <b>Equipment Rental Rates</b>                                                |                 |           |                 |           |
| Scissor Lift                                                                 | \$38/hr         |           |                 |           |
| Material Lift (CO2 or Manual)                                                | \$18/hr         |           |                 |           |
| Boom Truck                                                                   | \$150/hr        |           |                 |           |
| Delivery Truck                                                               | \$75/hr         |           |                 |           |
| Pump Cart (for filling hydronic systems)                                     | \$25/hr         |           |                 |           |
| Welder                                                                       | \$22/hr         |           |                 |           |
| Rooftop equipment dolly                                                      | \$43/hr         |           |                 |           |

1. Regular Time - Monday thru Friday, from 6:30 AM to 3:00 PM

Additionally Sunset Air would mark up materials at a rate of 18%.

This option provides a benefit for the client agency because Sunset Air works completely open-book. If construction costs come in lower than what was anticipated, the savings would be retained by the client agency. However, if the project is bid out, the selected subcontractor would be issued a lump-sum contract and savings realized by the subcontractor would be retained by the subcontractor.

## Project Financials

**Table 4.1 Budget Summary Breakdown: Energy Project**

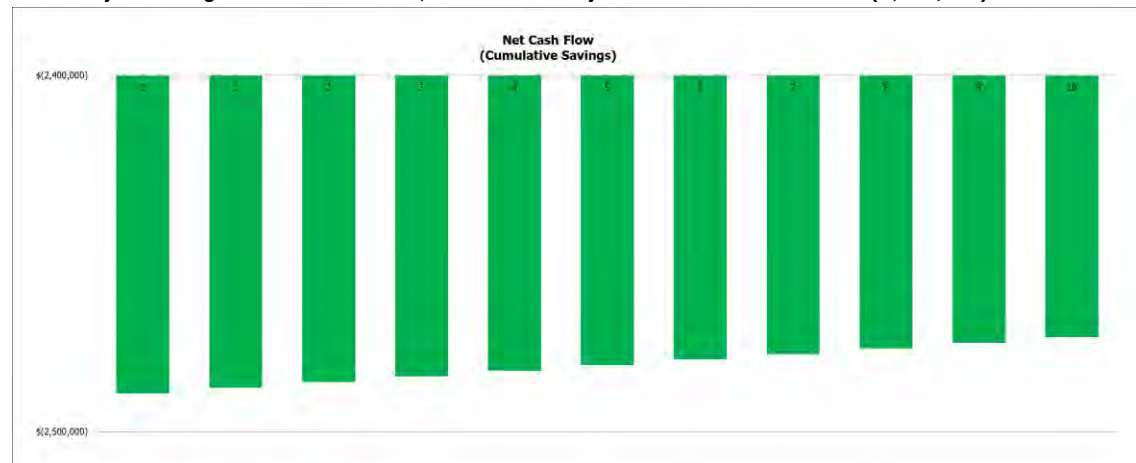
| ESCO:                                      |         |                       | SPSCC LACEY B2 |                     |  |                        |
|--------------------------------------------|---------|-----------------------|----------------|---------------------|-------------------------------------------------------------------------------------|------------------------|
| Building Square Footage:                   |         |                       | 8,500          |                     |                                                                                     |                        |
| <b>Construction Costs</b>                  |         |                       |                |                     | <b>Project Financing</b>                                                            |                        |
| Investment Grade Audit Fee                 |         |                       | \$             | 122,180.00          | Project Implementation Cost                                                         | \$ 2,489,200.66        |
| Engineering & Design                       | 2.5%    | of Construction Costs | \$             | 40,450.40           | Capital Investment                                                                  | 100.0% \$ 2,489,200.66 |
| Subtotal                                   |         |                       | \$             | 162,630.40          | Grant                                                                               | \$ -                   |
| Construction Costs                         |         |                       | \$             | 1,618,016.00        | Utility Incentives                                                                  | \$ -                   |
| Bonding                                    | 2.0%    | of Construction Costs | \$             | 32,360.32           | <b>Amount Financed</b>                                                              | \$ -                   |
| Contingency                                | 5.0%    | of Construction Costs | \$             | 80,900.80           | <b>Maintenance Adjustments</b>                                                      |                        |
| Site Superintendent                        | 0.0%    | of Construction Costs | \$             | -                   | Annual Enhanced ESCO Maintenance Costs                                              | \$ -                   |
| Subtotal                                   |         |                       | \$             | 1,731,277.12        | ESCO Generated Maintenance Repair Savings                                           | \$ -                   |
| Construction Management/Admin              | 5.0%    | of Construction Costs | \$             | 80,900.80           | <b>Escalation Rates</b>                                                             |                        |
| Overhead                                   | 10.0%   | of Construction Costs | \$             | 161,801.60          | Operational Cost & Support Services Escalation Rate                                 | 3.50%                  |
| Profit                                     | 5.0%    | of Construction Costs | \$             | 80,900.80           | <b>Payments Per Year</b>                                                            |                        |
| M&V - Yr 1                                 | \$ 0.08 | per SF                | \$             | 680.00              | Simple Payback (years)                                                              | 2 0.0                  |
| M&V - Yr 2 & 3                             | \$ -    | per SF                | \$             | -                   | Payment                                                                             | 2 Per Year \$ -        |
| Subtotal                                   |         |                       | \$             | 324,283.20          | <b>Annual Loan Payment</b>                                                          |                        |
| Construction Costs & Professional Services |         |                       | \$             | 2,218,190.72        | Initial Annual Estimated Energy Savings                                             | \$ 1,576               |
| <b>Guaranteed Maximum Price</b>            |         |                       | \$             | <b>2,218,190.72</b> |                                                                                     |                        |
| DES Project Management Fees                |         |                       | \$             | 62,500.00           |                                                                                     |                        |
| WWST on Construction Cost less Contingency | 9.4%    |                       | \$             | 200,905.26          |                                                                                     |                        |
| WWST on Contingency                        | 9.4%    |                       | \$             | 7,604.68            |                                                                                     |                        |
| <b>Total ESCO Contract Costs</b>           |         |                       | \$             | <b>2,489,200.66</b> |                                                                                     |                        |

**Note:** Any utility escalation rate must be approved by both the client agency and DES. Utility escalation is not allowed when energy savings are being utilized to repay financing. Utility escalation is only to be utilized for client agencies internal accounting.

## Project Financials

**Table 4.2 Cash Flow Analysis**

| ESCO Cashflow Analysis - Standard Cashflow |                 |                                 |                        |                      |                      |                      |                |                |
|--------------------------------------------|-----------------|---------------------------------|------------------------|----------------------|----------------------|----------------------|----------------|----------------|
| Loan Term:                                 |                 |                                 | 10 Years               |                      |                      | Interest 3.80%       |                |                |
|                                            | Project Savings |                                 |                        | Project Costs        |                      |                      | Cashflow       |                |
| Year                                       | Energy Savings  | Operational Maintenance Savings | Annual Project Savings | Principal & Interest | Enhanced Maintenance | Annual Project Costs | Annual Net     | Cumulative Net |
| 0                                          | \$ -            | \$ -                            | \$0.00                 | -\$2,489,201         | 0                    | \$ (2,489,201)       | \$ (2,489,201) | \$ (2,489,201) |
| 1                                          | \$ 1,576        | \$ -                            | \$ 1,576               | \$ -                 | \$ -                 | \$ -                 | \$ 1,576       | \$ (2,487,625) |
| 2                                          | \$ 1,576        | \$ -                            | \$ 1,576               | \$ -                 | \$ -                 | \$ -                 | \$ 1,576       | \$ (2,486,048) |
| 3                                          | \$ 1,576        | \$ -                            | \$ 1,576               | \$ -                 | \$ -                 | \$ -                 | \$ 1,576       | \$ (2,484,472) |
| 4                                          | \$ 1,576        | \$ -                            | \$ 1,576               | \$ -                 | \$ -                 | \$ -                 | \$ 1,576       | \$ (2,482,896) |
| 5                                          | \$ 1,576        | \$ -                            | \$ 1,576               | \$ -                 | \$ -                 | \$ -                 | \$ 1,576       | \$ (2,481,320) |
| 6                                          | \$ 1,576        | \$ -                            | \$ 1,576               | \$ -                 | \$ -                 | \$ -                 | \$ 1,576       | \$ (2,479,744) |
| 7                                          | \$ 1,576        | \$ -                            | \$ 1,576               | \$ -                 | \$ -                 | \$ -                 | \$ 1,576       | \$ (2,478,168) |
| 8                                          | \$ 1,576        | \$ -                            | \$ 1,576               | \$ -                 | \$ -                 | \$ -                 | \$ 1,576       | \$ (2,476,592) |
| 9                                          | \$ 1,576        | \$ -                            | \$ 1,576               | \$ -                 | \$ -                 | \$ -                 | \$ 1,576       | \$ (2,475,015) |
| 10                                         | \$ 1,576        | \$ -                            | \$ 1,576               | \$ -                 | \$ -                 | \$ -                 | \$ 1,576       | \$ (2,473,439) |
| Total Project Savings:                     |                 |                                 | \$ 15,761              | Total Project Costs: |                      |                      | \$ (2,489,201) |                |



## Project Financials

**Table 4.3 State Treasurer Loan Financing**

|                             |       |
|-----------------------------|-------|
| Financed Amount             | \$ -  |
| Term of Loan (yrs)          | 10    |
| Interest Rate               | 3.80% |
| Number of Payments per Year | 2     |
| Payment                     | \$ -  |

| Payment Due Date | Period | Payment     | Principal   | Interest    | Balance     |
|------------------|--------|-------------|-------------|-------------|-------------|
|                  | 0      |             |             |             | \$ -        |
|                  | 1      | \$ -        | \$ -        | \$ -        | \$ -        |
|                  | 2      | \$ -        | \$ -        | \$ -        | \$ -        |
|                  | 3      | \$ -        | \$ -        | \$ -        | \$ -        |
|                  | 4      | \$ -        | \$ -        | \$ -        | \$ -        |
|                  | 5      | \$ -        | \$ -        | \$ -        | \$ -        |
|                  | 6      | \$ -        | \$ -        | \$ -        | \$ -        |
|                  | 7      | \$ -        | \$ -        | \$ -        | \$ -        |
|                  | 8      | \$ -        | \$ -        | \$ -        | \$ -        |
|                  | 9      | \$ -        | \$ -        | \$ -        | \$ -        |
|                  | 10     | \$ -        | \$ -        | \$ -        | \$ -        |
|                  | 11     | \$ -        | \$ -        | \$ -        | \$ -        |
|                  | 12     | \$ -        | \$ -        | \$ -        | \$ -        |
|                  | 13     | \$ -        | \$ -        | \$ -        | \$ -        |
|                  | 14     | \$ -        | \$ -        | \$ -        | \$ -        |
|                  | 15     | \$ -        | \$ -        | \$ -        | \$ -        |
|                  | 16     | \$ -        | \$ -        | \$ -        | \$ -        |
|                  | 17     | \$ -        | \$ -        | \$ -        | \$ -        |
|                  | 18     | \$ -        | \$ -        | \$ -        | \$ -        |
|                  | 19     | \$ -        | \$ -        | \$ -        | \$ -        |
|                  | 20     | \$ -        | \$ -        | \$ -        | \$ -        |
| <b>Total</b>     |        | <b>\$ -</b> | <b>\$ -</b> | <b>\$ -</b> | <b>\$ -</b> |

## Project Financials

**Table 4.4 Schedule of Values**

| PROJECTED BILLINGS/SCHEDULE OF VALUES  |                        |                     |                     |                     |                     |                     |                     |                  |  |
|----------------------------------------|------------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|------------------|--|
| Description                            | Contract Amount        | Aug-20              | Sep-20              | Oct-20              | Nov-20              | Dec-20              | Jan-21              | Jan-22           |  |
| <b>Energy Services</b>                 |                        |                     |                     |                     |                     |                     |                     |                  |  |
| Energy Services Proposal               | \$ 122,180.00          | \$ 122,180.00       | \$ -                | \$ -                | \$ -                | \$ -                | \$ -                | \$ -             |  |
| Measurement & Verification Fee         | \$ 680.00              | \$ -                | \$ -                | \$ -                | \$ -                | \$ -                | \$ -                | \$ 680.00        |  |
| Design - Mechanical/Electrical         | \$ 40,450.40           | \$ 30,337.80        | \$ 10,112.60        | \$ -                | \$ -                | \$ -                | \$ -                | \$ -             |  |
| Construction Management                | \$ 80,900.80           | \$ 8,090.08         | \$ 12,135.12        | \$ 20,225.20        | \$ 20,225.20        | \$ 12,135.12        | \$ 8,090.08         | \$ -             |  |
| ESCO OH & Profit                       | \$ 242,702.40          | \$ 24,270.24        | \$ 36,405.36        | \$ 60,675.60        | \$ 60,675.60        | \$ 36,405.36        | \$ 24,270.24        | \$ -             |  |
| <b>Subtotal</b>                        | <b>\$ 486,913.60</b>   | <b>\$184,878.12</b> | <b>\$ 58,653.08</b> | <b>\$ 80,900.80</b> | <b>\$ 80,900.80</b> | <b>\$ 48,540.48</b> | <b>\$ 32,360.32</b> | <b>\$ 680.00</b> |  |
| <b>Construction</b>                    |                        |                     |                     |                     |                     |                     |                     |                  |  |
| Electric                               | \$ 77,636.00           | \$ 7,763.60         | \$ 11,645.40        | \$ 19,409.00        | \$ 19,409.00        | \$ 11,645.40        | \$ 7,763.60         | \$ -             |  |
| BAS                                    | \$ -                   | \$ -                | \$ -                | \$ -                | \$ -                | \$ -                | \$ -                | \$ -             |  |
| CX                                     | \$ -                   | \$ -                | \$ -                | \$ -                | \$ -                | \$ -                | \$ -                | \$ -             |  |
| Mech                                   | \$ 241,500.00          | \$ 24,150.00        | \$ 36,225.00        | \$ 60,375.00        | \$ 60,375.00        | \$ 36,225.00        | \$ 24,150.00        | \$ -             |  |
| Other                                  | \$ 1,298,880.00        | \$ 129,888.00       | \$ 194,832.00       | \$ 324,720.00       | \$ 324,720.00       | \$ 194,832.00       | \$ 129,888.00       | \$ -             |  |
| Site Supervision staff                 | \$ -                   | \$ -                | \$ -                | \$ -                | \$ -                | \$ -                | \$ -                | \$ -             |  |
| Project Site Office Costs              | \$ -                   | \$ -                | \$ -                | \$ -                | \$ -                | \$ -                | \$ -                | \$ -             |  |
| Construction Travel Costs              | \$ -                   | \$ -                | \$ -                | \$ -                | \$ -                | \$ -                | \$ -                | \$ -             |  |
| Performance Bond                       | \$ 32,360.32           | \$ 32,360.32        | \$ -                | \$ -                | \$ -                | \$ -                | \$ -                | \$ -             |  |
| <b>Subtotal Construction Cost</b>      | <b>\$ 1,650,376.32</b> | <b>\$194,161.92</b> | <b>\$242,702.40</b> | <b>\$404,504.00</b> | <b>\$404,504.00</b> | <b>\$242,702.40</b> | <b>\$161,801.60</b> | <b>\$ -</b>      |  |
| WSST (9.4%) on Const. & Prof. Services | \$ 200,905.26          | \$ 35,629.76        | \$ 28,327.42        | \$ 45,628.06        | \$ 45,628.05        | \$ 27,376.83        | \$ 18,251.22        | \$ 63.92         |  |
| <b>Total ESCO + Construction Costs</b> | <b>\$ 2,338,195.18</b> | <b>\$414,669.80</b> | <b>\$329,682.90</b> | <b>\$531,032.86</b> | <b>\$531,032.85</b> | <b>\$318,619.71</b> | <b>\$212,413.14</b> | <b>\$ 743.92</b> |  |
| <b>Other Costs</b>                     |                        |                     |                     |                     |                     |                     |                     |                  |  |
| DES Project Management Fee             | \$ 62,500.00           | \$ -                | \$ -                | \$ -                | \$ -                | \$ -                | \$ 62,500.00        | \$ -             |  |
| Contingency                            | \$ 80,900.80           | \$ -                | \$ -                | \$ -                | \$ -                | \$ -                | \$ 80,900.80        | \$ -             |  |
| WSST (9.1%) on Contingency             | \$ 7,604.68            | \$ -                | \$ -                | \$ -                | \$ -                | \$ -                | \$ 7,604.68         | \$ -             |  |
| <b>Subtotal Other Costs</b>            | <b>\$ 151,005.48</b>   | <b>\$ -</b>         | <b>\$ -</b>         | <b>\$ -</b>         | <b>\$ -</b>         | <b>\$ -</b>         | <b>\$151,005.48</b> | <b>\$ -</b>      |  |
| <b>Maximum Project Costs</b>           | <b>\$ 2,489,200.66</b> | <b>\$414,669.80</b> | <b>\$329,682.90</b> | <b>\$531,032.86</b> | <b>\$531,032.85</b> | <b>\$318,619.71</b> | <b>\$363,418.62</b> | <b>\$ 743.92</b> |  |

## **APPENDIX A**

### **SPSCC LACEY BLDG 2**

## **A.1 Project Scope**

### **A.1.1 Facility Summary**

This facility currently serves as the VA vet center outstation as well as the City of Lacey's Veterans hub. Both occupy the second floor while the first floor is essentially unoccupied. The building is outdated and consist of mostly original construction from the 1980's. The building envelope reflects standard construction practices from the 1980's with relatively low insulation levels compared to today's standards. Lighting consists mostly of T8 throughout the interior of the building, which is not the most inefficient option, but it doesn't meet current industry standards. The first floor of the building is served by two split system heat pumps that are at or near the end of their useful life. The second floor is served by two packaged rooftop heat pumps, one of which has been replaced within the last 2 years. The other packaged rooftop unit is at the end of its useful life and does not meet current industry efficiency standards. The building will continue to be used by the same tenants, but the layout will be modified to better serve those tenants.

## **A.1 Project Scope**

### **A.1.2 - Detailed Scope of Work**

This detailed Scope of Work provides a summary of all the Energy Conservation Measures and Facility Improvement Measures developed during the IGA and the anticipated engineering design.

#### **EEM 1 – Building envelope upgrades**

1. Replace existing roof
  - a. Demo existing roof.
  - b. Install new asphalt shingle roof at all sloped roof areas.
    - i. Includes ice and water shield.
  - c. Install new PVC membrane roof at flat roof in the well.
    - i. Includes ice and water shield.
  - d. Install additional insulation on top of the roof at the flat roof section.
  - e. Install additional batt insulation above existing batts at the pitched roof areas.
2. Replace existing siding.
  - a. Demo existing siding down to sheathing.
  - b. Install new Hardi panel system per Arch drawings.
    - i. New building exterior to match appearance of building 3.
3. Replace existing windows.
  - a. Demo and remove existing windows.
  - b. Install new fiber-glass windows as the building is being re-sided.

#### **EEM 2 – VA suite TI**

1. Reconfigure VA suite.
  - a. Demo and remove existing partition walls per the Architectural drawings.
  - b. Install new partition walls as indicated on the Architectural drawings.
  - c. Provide new doors as indicated on the Architectural drawings.
  - d. Provide new finishes as indicated on the Architectural drawings.

#### **EEM 3 – Interior lighting upgrade**

1. Replace interior lighting throughout the building.
  - a. Demo and remove existing lighting fixtures.
  - b. Install new LED lighting fixtures.
    - i. Reconfigure new lighting locations per Architectural drawings.
  - c. New day-lighting controls and occupancy sensors per energy code requirements.

#### **EEM 4 – Exterior building lighting upgrade**

## **A.1 Project Scope**

1. Replace exterior building lighting.
  - a. Demo and remove existing exterior building lighting fixtures.
  - b. Install new LED lighting fixtures.

### **EEM 5 – Mechanical systems upgrade**

1. Replace existing mechanical equipment with the exception of the packaged RTU that was replaced within the last 2 years
  - a. Demo and remove the old packaged RTU
  - b. Demo and remove split system heat pumps on the roof and fan coils located on the first floor.
  - c. Reconfigure the ductwork as required per the new space configurations.
  - d. Add VVT zone control systems to the ductwork per the mechanical drawings.
  - e. Install new packaged rooftop unit and reconfigure ductwork for vertical discharge.
  - f. Install new split heat pumps on the roof and new fan coils on the first floor.
    - i. Route new refrigerant line sets.

### **EEM 6 – Plumbing fixture upgrade**

1. Replace existing plumbing fixtures.
  - a. Demo and remove existing plumbing fixtures.
  - b. Install new plumbing fixtures as indicated on the plumbing drawings.
    - i. Re-configure piping to meet new ADA requirements for the restrooms.

### **EEM 7 – Building accessibility**

1. Replace deck and stair and street side 2<sup>nd</sup> floor building exit.
  - a. Demo and remove existing deck and railroad tie stair.
  - b. Construct new wood deck.
    - i. Extend deck to new exit from 2<sup>nd</sup> floor multi-purpose room.
  - c. Install new concrete stair and railing.

### **EEM 8 – Building interior improvements**

1. Reconfigure building common spaces and restrooms.
  - a. Demo and remove required partitions to accommodate new ADA requirements for restrooms.
  - b. Install new partition walls as indicated on the Architectural drawings.
  - c. Provide new finishes as indicated on the Architectural drawings.

## A.2 Energy Cost Savings Guarantees Tables

### A.2.1 - Finalized EEM's & Costs

| SPSCC Lacey B2 - Audit Findings                                                         |                                                                                                                                                                                                                 |                      |                         |                 |                               |                           |                                     |                      |             |
|-----------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------|-------------------------|-----------------|-------------------------------|---------------------------|-------------------------------------|----------------------|-------------|
| Building Energy Conservation Measures (ECM's) and Facility Improvement Measures (FIM's) |                                                                                                                                                                                                                 |                      |                         |                 |                               |                           |                                     |                      |             |
| ITEM #                                                                                  | Measure to be Considered                                                                                                                                                                                        | Energy Savings \$/Yr | Electricity Saved (kWh) | Water (gallons) | Capital Costs (no soft costs) | Projected Utility Rebates | Net Capital Cost Without Soft Costs | Simple Payback (Yrs) | Recommended |
| 1a                                                                                      | Building envelope improvements. New siding to match buildings 1 and 3. New roof with improved insulation. New high performance windows.                                                                         | \$ 657.31            | 5,976                   | -               | \$ 600,000.00                 | \$ -                      | \$ 600,000.00                       | 913                  | Y           |
| 1b                                                                                      | Building envelope improvements. New siding to match buildings 1 and 3. New roof with improved insulation. New high performance windows. Improved wall insulation                                                | \$ 920.23            | 8,366                   | -               | \$1,000,000.00                | \$ -                      | \$ 1,000,000.00                     | 1,087                | N           |
| 2                                                                                       | VA suite tenant improvement per plans developed in conjunction with the City of Lacey, SPSCC, and the VA.                                                                                                       | \$ -                 | -                       | -               | \$ 351,159.00                 | \$ -                      | \$ 351,159.00                       | #DIV/0!              | Y           |
| 3                                                                                       | Interior lighting upgrades to LED. Improved lighting controls including daylight controls and occupancy sensors.                                                                                                | \$ 381.15            | 3,465                   | -               | \$ 60,000.00                  | \$ -                      | \$ 60,000.00                        | 157                  | Y           |
| 4                                                                                       | Exterior lighting upgrades to LED.                                                                                                                                                                              | \$ 602.25            | 5,475                   | -               | \$ 17,636.00                  | \$ -                      | \$ 17,636.00                        | 29                   | Y           |
| 5a                                                                                      | Replacement of existing mechanical systems with the exception of the packaged rooftop unit that was replaced in the last 2 years. Addition of zoning per new floor plans and associated ductwork modifications. | \$ 110.56            | 1,005                   | -               | \$ 155,500.00                 | \$ -                      | \$ 155,500.00                       | 1,406                | Y           |
| 5b                                                                                      | Replacement of existing mechanical systems with a 90% efficient DOAS system and VRF heat recovery system.                                                                                                       | \$ 2,750.00          | 25,000                  | -               | \$ 450,000.00                 | \$ -                      | \$ 450,000.00                       | 164                  | N           |
| 6                                                                                       | Plumbing fixtures upgraded to high efficiency models.                                                                                                                                                           | \$ -                 | -                       | 18,938          | \$ 86,000.00                  | \$ -                      | \$ 86,000.00                        | #DIV/0!              | Y           |
| 7                                                                                       | Building accessibility at new exit from the second floor on the street side of the building to be improved with new deck and stair                                                                              | \$ -                 | -                       | -               | \$ 26,138.00                  | \$ -                      | \$ 26,138.00                        | #DIV/0!              | Y           |
| 8                                                                                       | Building interior improvements for bathrooms and common areas as well as demo and ceilings for the first floor and second floor meeting room                                                                    | \$ -                 | -                       | -               | \$ 321,583.00                 | \$ -                      | \$ 321,583.00                       | #DIV/0!              | Y           |

## A.2 Energy Cost Savings Guarantees Tables

### A.2.2 - Selected EEM's & Costs Table

| SPSCC Lacey B2 - Selected EEMs and Costs                                                |        |                                                                                                                                                                                                                 |                      |                         |                    |                 |                               |                           |                                     |                      |             |
|-----------------------------------------------------------------------------------------|--------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------|-------------------------|--------------------|-----------------|-------------------------------|---------------------------|-------------------------------------|----------------------|-------------|
| Building Energy Conservation Measures (ECM's) and Facility Improvement Measures (FIM's) |        |                                                                                                                                                                                                                 |                      |                         |                    |                 |                               |                           |                                     |                      |             |
|                                                                                         | ITEM # | Measure to be Considered                                                                                                                                                                                        | Energy Savings \$/Yr | Electricity Saved (kWh) | Gas Saved (Therms) | Water (gallons) | Capital Costs (no soft costs) | Projected Utility Rebates | Net Capital Cost Without Soft Costs | Simple Payback (Yrs) | Recommended |
| Yes                                                                                     | 1a     | Building envelope improvements. New siding to match buildings 1 and 3. New roof with improved insulation. New high performance windows.                                                                         | \$ 657.31            | 5,976                   | -                  | -               | \$ 600,000.00                 | \$ -                      | \$ 600,000.00                       | 913                  | Y           |
| No                                                                                      | 1b     | Building envelope improvements. New siding to match buildings 1 and 3. New roof with improved insulation. New high performance windows. Improved wall insulation                                                | \$ -                 | -                       | -                  | -               | \$ -                          | \$ -                      | \$ -                                | -                    | N           |
| Yes                                                                                     | 2      | VA suite tenant improvement per plans developed in conjunction with the City of Lacey, SPSCC, and the VA.                                                                                                       | \$ -                 | -                       | -                  | -               | \$ 351,159.00                 | \$ -                      | \$ 351,159.00                       | #DIV/0!              | Y           |
| Yes                                                                                     | 3      | Interior lighting upgrades to LED. Improved lighting controls including daylight controls and occupancy sensors.                                                                                                | \$ 381.15            | 3,465                   | -                  | -               | \$ 60,000.00                  | \$ -                      | \$ 60,000.00                        | 157                  | Y           |
| Yes                                                                                     | 4      | Exterior lighting upgrades to LED.                                                                                                                                                                              | \$ 602.25            | 5,475                   | -                  | -               | \$ 17,636.00                  | \$ -                      | \$ 17,636.00                        | 29                   | Y           |
| Yes                                                                                     | 5a     | Replacement of existing mechanical systems with the exception of the packaged rooftop unit that was replaced in the last 2 years. Addition of zoning per new floor plans and associated ductwork modifications. | \$ 110.56            | 1,005                   | -                  | -               | \$ 155,500.00                 | \$ -                      | \$ 155,500.00                       | 1,406                | Y           |
| No                                                                                      | 5b     | Replacement of existing mechanical systems with a 90% efficient DOAS system and VRF heat recovery system.                                                                                                       | \$ -                 | -                       | -                  | -               | \$ -                          | \$ -                      | \$ -                                | -                    | N           |
| Yes                                                                                     | 6      | Plumbing fixtures upgraded to high efficiency models.                                                                                                                                                           | \$ -                 | -                       | -                  | 18,938          | \$ 86,000.00                  | \$ -                      | \$ 86,000.00                        | #DIV/0!              | Y           |
| Yes                                                                                     | 7      | Building accessibility at new exit from the second floor on the street side of the building to be improved with new deck and stair                                                                              | \$ -                 | -                       | -                  | -               | \$ 26,138.00                  | \$ -                      | \$ 26,138.00                        | #DIV/0!              | Y           |
| Yes                                                                                     | 8      | Building interior improvements for bathrooms and common areas as well as demo and ceilings for the first floor and second floor meeting room                                                                    | \$ -                 | -                       | -                  | -               | \$ 321,583.00                 | \$ -                      | \$ 321,583.00                       | #DIV/0!              | Y           |
| Totals                                                                                  |        |                                                                                                                                                                                                                 | \$ 1,751.27          | 15,921                  | -                  | 18,938          | \$1,618,016.00                | \$ -                      | \$ 1,618,016.00                     | 924                  |             |

EEM 1b and 5b were not pursued due to budget constraints.

## A.2 Energy Cost Savings Guarantees Tables

### A.2.3 Energy Savings Guarantee Table

| SPSCC Lacey B2 - Energy Savings Guarantee |                                                                                                                                                                                                                 |                                                                     |                                                                                   |                                                                                                                           |               |             |               |                            |                      |
|-------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------|-----------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------|---------------|-------------|---------------|----------------------------|----------------------|
| ITEM #                                    | Measure Description                                                                                                                                                                                             | Key Factors                                                         | Agreed Upon Criteria                                                              |                                                                                                                           | Electricity   | Natural Gas | Water         | Annual Energy Savings (\$) | Guarantee Percentage |
|                                           |                                                                                                                                                                                                                 |                                                                     | Baseline                                                                          | Proposed                                                                                                                  | kWh           | Therms      | gallons       |                            |                      |
| 1                                         | Building envelope improvements. New siding to match buildings 1 and 3. New roof with improved insulation. New high performance windows.                                                                         | Existing building envelope exists from original construction        | Original 1980's construction                                                      | Upgraded roof/ceiling insulation levels and high efficiency windows. Siding to match the appearance of buildings 1 and 3. | 5,378         | -           | -             | \$ 591.57                  | 90%                  |
| 2                                         | VA suite tenant improvement per plans developed in conjunction with the City of Lacey, SPSCC, and the VA.                                                                                                       | Space is not configured to meet tenant needs                        | Existing space as currently configured.                                           | Newly configured space to meet VA requirements.                                                                           | -             | -           | -             | \$ -                       | 90%                  |
| 3                                         | Interior lighting upgrades to LED. Improved lighting controls including daylight controls and occupancy sensors.                                                                                                | Existing lighting is outdated fluorescent technology                | Existing lighting throughout the building.                                        | New LED lighting with improved control strategies.                                                                        | 3,119         | -           | -             | \$ 343.04                  | 90%                  |
| 4                                         | Exterior lighting upgrades to LED.                                                                                                                                                                              | Existing lighting is outdated                                       | Existing lighting at the exterior of the building                                 | New LED exterior building lighting.                                                                                       | 4,928         | -           | -             | \$ 542.03                  | 90%                  |
| 5                                         | Replacement of existing mechanical systems with the exception of the packaged rooftop unit that was replaced in the last 2 years. Addition of zoning per new floor plans and associated ductwork modifications. | Existing mechanical equipment is outdated and inefficient           | Existing mechanical equipment as currently installed.                             | New mechanical equipment with higher efficiencies and improved zoning control.                                            | 905           | -           | -             | \$ 99.50                   | 90%                  |
| 6                                         | Plumbing fixtures upgraded to high efficiency models.                                                                                                                                                           | Existing plumbing fixtures are outdated and inefficient             | Existing plumbing fixtures as currently installed                                 | New high efficiency plumbing fixtures                                                                                     | -             | -           | 17,044        | \$ -                       | 90%                  |
| 7                                         | Building accessibility at new exit from the second floor on the street side of the building to be improved with new deck and stair                                                                              | Current auxiliary exit from the second floor is sub-par             | Existing failing deck and railroad tie stair                                      | New deck and more safe stair.                                                                                             | -             | -           | -             | \$ -                       | 190%                 |
| 8                                         | Building interior improvements for bathrooms and common areas as well as demo and ceilings for the first floor and second floor meeting room                                                                    | Building interior is not currently configured to meet tenants needs | Existing building as currently configured. Restrooms do not meet ADA requirements | Newly configured interior to meet tenants needs and ADA requirements.                                                     | -             | -           | -             | \$ -                       | 90%                  |
| <b>Totals</b>                             |                                                                                                                                                                                                                 |                                                                     |                                                                                   |                                                                                                                           | <b>14,329</b> | <b>-</b>    | <b>17,044</b> | <b>\$ 1,576.14</b>         |                      |

1. Refer to M&V Plan for specific performance assurance tasks to be performed to verify savings

## A.2 Energy Cost Savings Guarantees Tables

### A.2.4 M & V Plan Table

| SPSCC Lacey B2 - M&V Plan |                                                                                                                                                                                                                 |                                                                                  |                                                                                    |                                                                                                                                                                                         |                                                                     |                                                |                                                                       |              |                                                                                 |
|---------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------|------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------|------------------------------------------------|-----------------------------------------------------------------------|--------------|---------------------------------------------------------------------------------|
| ITEM #                    | Measure Description                                                                                                                                                                                             | Key Factors                                                                      | Audit Stage                                                                        | Construction Stage                                                                                                                                                                      | Post Construction Stage                                             | First Year                                     | Years 2 - 10                                                          | IPMVP Method | On-going Owner Responsibilities                                                 |
| 1                         | Building envelope improvements. New siding to match buildings 1 and 3. New roof with improved insulation. New high performance windows.                                                                         | Existing building envelope exists from original construction                     | Investigate existing building envelope                                             | Upgrade building envelope per architectural drawings to include additional roof/ceiling insulation and new windows. Incorporate this information into the energy model for calibration. | Verify installation of new roof/ceiling insulation and new windows  | Inspect building envelope conditions           | No measurement and verification is currently proposed for this period | D            | All equipment shall be serviced and maintained per manufacturer recommendations |
| 2                         | VA suite tenant improvement per plans developed in conjunction with the City of Lacey, SPSCC, and the VA.                                                                                                       | Interior improvements associated with EEM's 1, 3, and 5                          | Investigate and design charette space requirements                                 | Reconfigure space as indicated on the Architectural drawings                                                                                                                            | Verify new TI configuration matches drawings                        | No measurement and verification                | N/A                                                                   | N/A          | All equipment shall be serviced and maintained per manufacturer recommendations |
| 3                         | Interior lighting upgrades to LED. Improved lighting controls including daylight controls and occupancy sensors.                                                                                                | Existing lighting is outdated fluorescent technology                             | Investigate existing interior building lighting                                    | Upgrade interior building lighting to LED and incorporate optimal control strategies. Spot check lighting wattages of existing fixtures and new fixtures to verify calculations         | Verify installation and operation of new interior lighting          | Verify operation of interior lighting.         | No measurement and verification is currently proposed for this period | A            | All equipment shall be serviced and maintained per manufacturer recommendations |
| 4                         | Exterior lighting upgrades to LED.                                                                                                                                                                              | Existing lighting is outdated and inefficient                                    | Investigate existing exterior building lighting                                    | Upgrade building exterior lighting to LED. Spot check lighting wattages of existing and new fixtures to verify calculations.                                                            | Verify installation and operation of new exterior building lighting | Verify operation of exterior building lighting | No measurement and verification is currently proposed for this period | A            | All equipment shall be serviced and maintained per manufacturer recommendations |
| 5                         | Replacement of existing mechanical systems with the exception of the packaged rooftop unit that was replaced in the last 2 years. Addition of zoning per new floor plans and associated ductwork modifications. | Existing mechanical equipment is outdated and inefficient                        | Investigate existing mechanical systems serving the building                       | Upgrade mechanical systems and provide zoning to match space requirements. Incorporate this information into the energy model along with data logging for calibration.                  | Verify installation and operation of new mechanical systems         | Verify operation of mechanical systems         | No measurement and verification is currently proposed for this period | D            | All equipment shall be serviced and maintained per manufacturer recommendations |
| 6                         | Plumbing fixtures upgraded to high efficiency models.                                                                                                                                                           | Existing plumbing fixtures are outdated and inefficient                          | Investigate existing plumbing fixtures                                             | Upgrade plumbing fixtures to high efficiency models. Verify flow rates of new and existing fixtures for calculations.                                                                   | Verify installation and functionality of new plumbing fixtures      | Verify functionality of plumbing fixtures      | No measurement and verification is currently proposed for this period | A            | All equipment shall be serviced and maintained per manufacturer recommendations |
| 7                         | Building accessibility at new exit from the second floor on the street side of the building to be improved with new deck and stair                                                                              | Current auxiliary exit from the second floor does not meet occupant requirements | Investigate existing building accessibility                                        | Install new exit deck and stair to accommodate new exit for the second floor                                                                                                            | Verify installation of new exit and stair                           | No measurement and verification                | N/A                                                                   | N/A          | All equipment shall be serviced and maintained per manufacturer recommendations |
| 8                         | Building interior improvements for bathrooms and common areas as well as demo and ceilings for the first floor and second floor meeting room                                                                    | Interior improvements associated with EEM's 1, 3, 5, and 6                       | Investigate existing building configuration and design charette space requirements | Reconfigure space as indicated on the Architectural drawings                                                                                                                            | Verify new TI configuration matches drawings                        | No measurement and verification                | N/A                                                                   | N/A          | All equipment shall be serviced and maintained per manufacturer recommendations |

## A.2 Energy Cost Savings Guarantees Tables

### A.2.5 Utility Base Rate Table

| SPSCC Lacey B2 - Utility Base Rates |          |                |                       |           |                |                |             |               |                              |
|-------------------------------------|----------|----------------|-----------------------|-----------|----------------|----------------|-------------|---------------|------------------------------|
|                                     | Provider | Measured Units | Measured Units Demand | Season    | \$/unit energy | \$/unit demand | Base Charge | Rate Schedule | Rate Schedule Effective Date |
| Electricity                         | PSE      | kWh            | kW                    | Apr - Sep | \$0.095411     | n/a            | \$24.90     | 24            | 5/1/2020                     |
|                                     |          |                |                       | Oct - Mar | \$0.098548     | n/a            |             |               |                              |

Aggregate utility rates based on what has been paid during the baseline year are as follows: **\$0.11/kWh** for electricity. These rates will be used during measurement and verification for calculating the dollars associated with the kWh and therm savings.

## **A.3 Exhibits**

### **A.3.1 Baseline Conditions**

The building was constructed in the 1980's and still consists of much of the original construction. HVAC systems are out of date and do not utilize optimum efficiencies. Zoning does not match building layout. Interior and exterior lighting are outdated and not utilizing best efficiency options. Plumbing fixtures are out of date. Much of the building does not meet current ADA standards.

### **A.3.2 Data Logger Analysis**

No data logging was completed for this facility as the use and configuration are changing significantly as a result of this project. There would not have been value in having this data as an energy model is more useful.

### **A.3.3 Energy Model Analysis**

A basic energy model was developed to compare the existing building with the improved insulation/envelope and also the improved HVAC equipment. The results from these models were used to estimate the savings for those measures. These models will have to be calibrated to the actual operating conditions for the building in order to complete the measurement and verification. See below for results of the energy models:

| <b>SPSCC Lacey B2</b> |                      |              |              |
|-----------------------|----------------------|--------------|--------------|
|                       | <b>HAP Models</b>    |              |              |
|                       | <b>Existing bldg</b> | <b>EEM 1</b> | <b>EEM 5</b> |
| Electricity (kWh)     | 74,205               | 67,915       | 66,857       |

After construction is complete, the energy model will be calibrated with data logger data in order to verify the savings that have been calculated using the energy model and reported as IPMVP option D in the M&V plan. Measures that are being verified with option A, will be spot checked and verified with spreadsheet calculations.

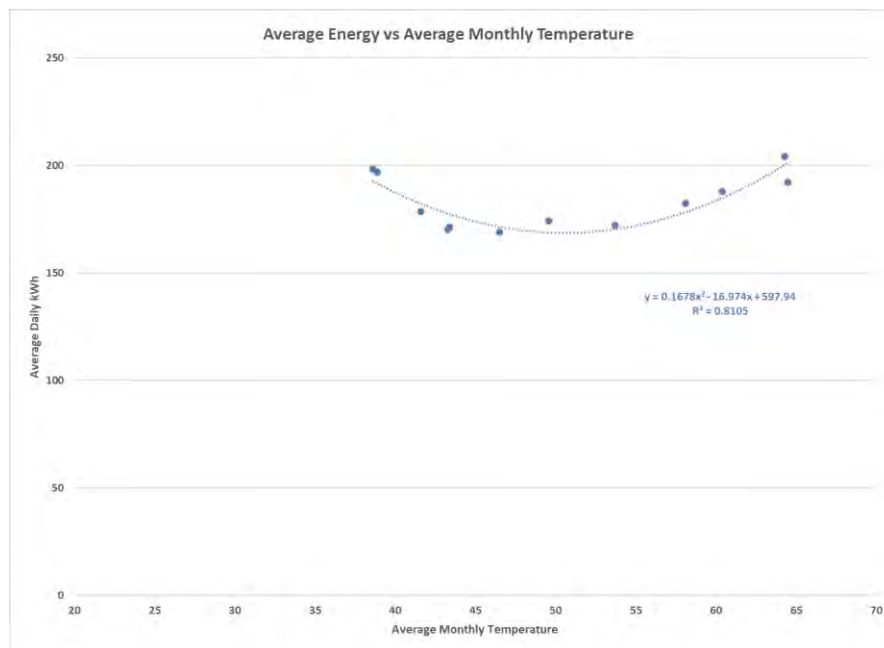
## A.4 Measurement & Verification

### A.4.1 Baseline Year Utility Usage

No baseline year utility data was collected or analyzed as the configuration and use of the building is changing as a result of this project.

### A.4.2 Regression Analysis Model

A regression equation has been generated that incorporates the energy usage based on EEM 1 and EEM 5. This regression equation will be utilized in the even that the weather data varies significantly from the energy model output data. The data set used to generate this graph is listed below the graph.



|     | daily kWh | temperature |
|-----|-----------|-------------|
| Jan | 198.3     | 38.6        |
| Feb | 178.5     | 41.6        |
| Mar | 170.1     | 43.3        |
| Apr | 168.9     | 46.5        |
| May | 172.1     | 53.7        |
| Jun | 187.8     | 60.4        |
| Jul | 204.2     | 64.3        |
| Aug | 192.2     | 64.5        |
| Sep | 182.3     | 58.1        |
| Oct | 174.1     | 49.6        |
| Nov | 171.3     | 43.4        |
| Dec | 197.0     | 38.9        |

## **A.4 Measurement & Verification**

### **A.4.3 Energy Savings Estimates and Guarantees**

| <b>ANNUAL ENERGY SAVINGS</b> |                                    |                                     |                                   |
|------------------------------|------------------------------------|-------------------------------------|-----------------------------------|
|                              | Estimated Annual<br>Energy Savings | Guaranteed Annual<br>Energy Savings | Year 1 Verified Energy<br>Savings |
| <b>kWh</b>                   | 15,921                             | 14,329                              | -                                 |
| <b>Total (kBtu)</b>          | 54,337                             | 48,903                              | -                                 |

## **APPENDIX B**

# **ENERGY LIFECYCLE COST ANALYSIS**

## **Appendix B – Energy** **Lifecycle Cost Analysis**



The two following spreadsheets show the **15-year** life cycle cost for doing this project (proposed) vs maintaining or replacing the existing systems after they have exceeded their useful life based on ASHRAE recommendations (base). The base has a **15-year** life cycle cost of **\$2,640,228.11** and the proposed has a **15-year** life cycle cost of **\$2,489,200.66**. This represents a savings of **\$151,027.45**, which is about **6.1%**, when looking at the **15-year** life cycle cost rather than simply first costs.

Below is a list of costs shown for the baseline costs as represented in the baseline LCCA sheet. These costs assume a project would take place 3 years from now and would incorporate a similar scope as detailed below:

- \$1,100,000 is represented in year 3 for envelope improvements and design costs to produced drawings for that work.
- \$135,000 is represented in year 3 for upgrading all of the plumbing fixtures and modifying the bathrooms to meet ADA requirements as well as all required design for this work.
- \$350,000 is represented in year 3 for HVAC equipment replacement to a fully code compliant system for office occupancy as well as all of the design for this work.
- \$135,000 is represented in year 3 for electrical and lighting upgrades as well as the required design costs.
- \$1,200,000 is represented in year 4 for all of the interior improvements to the building. This assumes that the TI work takes place immediately after the envelope work is completed and concurrent with the other MEP work. This cost includes all of the associated design costs for this work as well.

# Appendix B – Energy Lifecycle Cost Analysis



| Energy Life Cycle Cost Spreadsheet - Base |                 |                         |                          |                          |                    |                    |                               |                               |                                    |      |           |  |      |
|-------------------------------------------|-----------------|-------------------------|--------------------------|--------------------------|--------------------|--------------------|-------------------------------|-------------------------------|------------------------------------|------|-----------|--|------|
| PROJECT                                   | SPSCC Lacey B2  |                         |                          |                          |                    |                    |                               |                               |                                    |      |           |  |      |
| Alt. No.                                  | Base System     |                         |                          |                          |                    |                    |                               |                               |                                    |      |           |  |      |
|                                           |                 |                         |                          |                          |                    |                    |                               |                               | Years                              | Rate |           |  |      |
| Select Fuel Typ                           |                 |                         |                          |                          |                    |                    |                               |                               | Real Discount Rate (i)             |      | 2010-2030 |  | 3.0% |
| IOU <sup>1</sup> Electricity Source NO    |                 |                         |                          |                          |                    |                    |                               |                               | Electricity Escalation Rate        |      | 2010-2030 |  | 1.0% |
| POU <sup>2</sup> Electricity Source YES   |                 |                         |                          |                          |                    |                    |                               |                               | Natural Gas Escalation Rate        |      | 2010-2030 |  | 1.0% |
| Natural Gas Fuel YES                      |                 |                         |                          |                          |                    |                    |                               |                               | Propane Escalation Rate            |      | 2010-2030 |  | 1.0% |
| Propane Fuel NO                           |                 |                         |                          |                          |                    |                    |                               |                               | Oil Escalation Rate                |      | 2010-2030 |  | 1.0% |
| Oil Fuel NO                               |                 |                         |                          |                          |                    |                    |                               |                               | Maintenance Escalation Rate        |      | 2010-2030 |  | 3.0% |
|                                           |                 |                         |                          |                          |                    |                    |                               |                               | Inflation Rate (Nominal, not used) |      | 2010-2030 |  | 3.0% |
| 1. Investor Owned Utility                 |                 |                         |                          |                          |                    |                    |                               |                               |                                    |      |           |  |      |
| 2. Publicly Owned Utility                 |                 |                         |                          |                          |                    |                    |                               |                               |                                    |      |           |  |      |
| \$ 2,640,228.11 = 15-yr LCC               |                 |                         |                          |                          |                    |                    |                               |                               |                                    |      |           |  |      |
| Annual Cash Flows                         |                 |                         |                          |                          |                    |                    |                               |                               |                                    |      |           |  |      |
| Year                                      | Capital Costs   | Annual Maintenance Cost | Annual Electricity Costs | Annual Natural Gas Costs | Annual Water Costs | Total Annual Costs | Present Worth Factor (1+i)^-n | Present Worth of Annual Costs | Present Worth of Cumulative Costs  |      |           |  |      |
| 2020                                      |                 |                         |                          |                          |                    |                    |                               |                               |                                    |      |           |  |      |
| 0                                         | \$ -            | \$ -                    | \$ -                     | \$ -                     | \$ -               | \$ -               | 1.000                         | \$ -                          | \$ -                               |      |           |  |      |
| 1                                         | \$ -            | \$ -                    | \$ -                     | \$ -                     | \$ -               | \$ -               | 0.971                         | \$ -                          | \$ -                               |      |           |  |      |
| 2                                         | \$ -            | \$ -                    | \$ -                     | \$ -                     | \$ -               | \$ -               | 0.943                         | \$ -                          | \$ -                               |      |           |  |      |
| 3                                         | \$ 1,720,000.00 | \$ -                    | \$ -                     | \$ -                     | \$ -               | \$ 1,720,000.00    | 0.915                         | \$ 1,574,043.65               | \$ 1,574,043.65                    |      |           |  |      |
| 4                                         | \$ 1,200,000.00 | \$ -                    | \$ -                     | \$ -                     | \$ -               | \$ 1,200,000.00    | 0.888                         | \$ 1,066,184.46               | \$ 2,640,228.11                    |      |           |  |      |
| 5                                         | \$ -            | \$ -                    | \$ -                     | \$ -                     | \$ -               | \$ -               | 0.863                         | \$ -                          | \$ 2,640,228.11                    |      |           |  |      |
| 6                                         | \$ -            | \$ -                    | \$ -                     | \$ -                     | \$ -               | \$ -               | 0.837                         | \$ -                          | \$ 2,640,228.11                    |      |           |  |      |
| 7                                         | \$ -            | \$ -                    | \$ -                     | \$ -                     | \$ -               | \$ -               | 0.813                         | \$ -                          | \$ 2,640,228.11                    |      |           |  |      |
| 8                                         | \$ -            | \$ -                    | \$ -                     | \$ -                     | \$ -               | \$ -               | 0.789                         | \$ -                          | \$ 2,640,228.11                    |      |           |  |      |
| 9                                         | \$ -            | \$ -                    | \$ -                     | \$ -                     | \$ -               | \$ -               | 0.766                         | \$ -                          | \$ 2,640,228.11                    |      |           |  |      |
| 10                                        | \$ -            | \$ -                    | \$ -                     | \$ -                     | \$ -               | \$ -               | 0.744                         | \$ -                          | \$ 2,640,228.11                    |      |           |  |      |
| 11                                        | \$ -            | \$ -                    | \$ -                     | \$ -                     | \$ -               | \$ -               | 0.722                         | \$ -                          | \$ 2,640,228.11                    |      |           |  |      |
| 12                                        | \$ -            | \$ -                    | \$ -                     | \$ -                     | \$ -               | \$ -               | 0.701                         | \$ -                          | \$ 2,640,228.11                    |      |           |  |      |
| 13                                        | \$ -            | \$ -                    | \$ -                     | \$ -                     | \$ -               | \$ -               | 0.681                         | \$ -                          | \$ 2,640,228.11                    |      |           |  |      |
| 14                                        | \$ -            | \$ -                    | \$ -                     | \$ -                     | \$ -               | \$ -               | 0.661                         | \$ -                          | \$ 2,640,228.11                    |      |           |  |      |
| 15                                        | \$ -            | \$ -                    | \$ -                     | \$ -                     | \$ -               | \$ -               | 0.642                         | \$ -                          | \$ 2,640,228.11                    |      |           |  |      |
| Totals                                    | \$ 2,920,000.00 | \$ -                    | \$ -                     | \$ -                     | \$ -               | \$ 2,920,000.00    | \$ 2,640,228.11 = 15-yr LCC   |                               |                                    |      |           |  |      |
|                                           | Capital Costs   | Maint.                  | Elec.                    | Natural Gas              | Water              | Total Annual       |                               |                               |                                    |      |           |  |      |

# Appendix B – Energy Lifecycle Cost Analysis

| Energy Life Cycle Cost Spreadsheet - Proposed |                 |                |                 |                          |                          |                                    |                    |                      |                               |                                   |                 |             |
|-----------------------------------------------|-----------------|----------------|-----------------|--------------------------|--------------------------|------------------------------------|--------------------|----------------------|-------------------------------|-----------------------------------|-----------------|-------------|
| PROJECT                                       | SPSCC Lacey B2  |                |                 |                          |                          |                                    |                    |                      |                               |                                   |                 |             |
| Alt. No.                                      | Proposed System |                |                 |                          |                          |                                    |                    |                      |                               |                                   |                 |             |
|                                               |                 |                |                 |                          |                          |                                    |                    |                      |                               | Years                             | Rate            |             |
| Select Fuel Typ                               |                 |                |                 |                          |                          | Real Discount Rate (i)             |                    |                      |                               | 2010-2030                         | 3.0%            |             |
| IOU <sup>1</sup> Electricity Source           | NO              |                |                 |                          |                          | Electricity Escalation Rate        |                    |                      |                               | 2010-2030                         | 1.0%            |             |
| POU <sup>2</sup> Electricity Source           | YES             |                |                 |                          |                          | Natural Gas Escalation Rate        |                    |                      |                               | 2010-2030                         | 1.0%            |             |
| Natural Gas Fuel                              | YES             |                |                 |                          |                          | Propane Escalation Rate            |                    |                      |                               | 2010-2030                         | 1.0%            |             |
| Propane Fuel                                  | NO              |                |                 |                          |                          | Oil Escalation Rate                |                    |                      |                               | 2010-2030                         | 1.0%            |             |
| Oil Fuel                                      | NO              |                |                 |                          |                          | Maintenance Escalation Rate        |                    |                      |                               | 2010-2030                         | 3.0%            |             |
|                                               |                 |                |                 |                          |                          | Inflation Rate (Nominal, not used) |                    |                      |                               | 2010-2030                         | 3.0%            |             |
| 1. Investor Owned Utility                     |                 |                |                 |                          |                          |                                    |                    |                      |                               |                                   |                 |             |
| 2. Publicly Owned Utility                     |                 |                |                 |                          |                          |                                    |                    |                      |                               |                                   |                 |             |
|                                               |                 |                |                 |                          |                          |                                    |                    |                      |                               |                                   | \$ 2,489,200.66 | = 15-yr LCC |
| Annual Cash Flows                             |                 |                |                 |                          |                          |                                    |                    |                      |                               |                                   |                 |             |
| Year                                          | Capital Costs   | Utility Rebate | Commerce Grants | Annual Electricity Costs | Annual Natural Gas Costs | Annual Water Costs                 | Total Annual Costs | Present Worth Factor | Present Worth of Annual Costs | Present Worth of Cumulative Costs |                 |             |
| 2020                                          | \$ 2,489,200.66 | \$ -           | \$ -            | \$ -                     | \$ -                     | \$ -                               | \$ -               | (1+i)^-n             |                               |                                   |                 |             |
| 0                                             | \$ 2,489,200.66 | \$ -           | \$ -            | \$ -                     | \$ -                     | \$ -                               | \$ 2,489,200.66    | 1.000                | \$ 2,489,200.66               | \$ 2,489,200.66                   |                 |             |
| 1                                             |                 | \$ -           | \$ -            | \$ -                     | \$ -                     | \$ -                               | \$ -               | 0.971                | \$ -                          | \$ 2,489,200.66                   |                 |             |
| 2                                             |                 | \$ -           | \$ -            | \$ -                     | \$ -                     | \$ -                               | \$ -               | 0.943                | \$ -                          | \$ 2,489,200.66                   |                 |             |
| 3                                             |                 | \$ -           | \$ -            | \$ -                     | \$ -                     | \$ -                               | \$ -               | 0.915                | \$ -                          | \$ 2,489,200.66                   |                 |             |
| 4                                             |                 | \$ -           | \$ -            | \$ -                     | \$ -                     | \$ -                               | \$ -               | 0.888                | \$ -                          | \$ 2,489,200.66                   |                 |             |
| 5                                             |                 | \$ -           | \$ -            | \$ -                     | \$ -                     | \$ -                               | \$ -               | 0.863                | \$ -                          | \$ 2,489,200.66                   |                 |             |
| 6                                             |                 | \$ -           | \$ -            | \$ -                     | \$ -                     | \$ -                               | \$ -               | 0.837                | \$ -                          | \$ 2,489,200.66                   |                 |             |
| 7                                             |                 | \$ -           | \$ -            | \$ -                     | \$ -                     | \$ -                               | \$ -               | 0.813                | \$ -                          | \$ 2,489,200.66                   |                 |             |
| 8                                             |                 | \$ -           | \$ -            | \$ -                     | \$ -                     | \$ -                               | \$ -               | 0.789                | \$ -                          | \$ 2,489,200.66                   |                 |             |
| 9                                             |                 | \$ -           | \$ -            | \$ -                     | \$ -                     | \$ -                               | \$ -               | 0.766                | \$ -                          | \$ 2,489,200.66                   |                 |             |
| 10                                            |                 | \$ -           | \$ -            | \$ -                     | \$ -                     | \$ -                               | \$ -               | 0.744                | \$ -                          | \$ 2,489,200.66                   |                 |             |
| 11                                            |                 | \$ -           | \$ -            | \$ -                     | \$ -                     | \$ -                               | \$ -               | 0.722                | \$ -                          | \$ 2,489,200.66                   |                 |             |
| 12                                            |                 | \$ -           | \$ -            | \$ -                     | \$ -                     | \$ -                               | \$ -               | 0.701                | \$ -                          | \$ 2,489,200.66                   |                 |             |
| 13                                            |                 | \$ -           | \$ -            | \$ -                     | \$ -                     | \$ -                               | \$ -               | 0.681                | \$ -                          | \$ 2,489,200.66                   |                 |             |
| 14                                            |                 | \$ -           | \$ -            | \$ -                     | \$ -                     | \$ -                               | \$ -               | 0.661                | \$ -                          | \$ 2,489,200.66                   |                 |             |
| 15                                            |                 | \$ -           | \$ -            | \$ -                     | \$ -                     | \$ -                               | \$ -               | 0.642                | \$ -                          | \$ 2,489,200.66                   |                 |             |
| Totals                                        | \$ 2,489,200.66 | \$ -           | \$ -            | \$ -                     | \$ -                     | \$ -                               | \$ 2,489,200.66    |                      | \$ 2,489,200.66               | = 15-yr LCC                       |                 |             |
|                                               | Capital Costs   | Utility        | Commerce        | Elec                     | Natural Gas              | Water                              | Total Annual       |                      |                               |                                   |                 |             |

## **APPENDIX C**

# **TRAVEL REIMBURSEMENT PER LABOR UNION AGREEMENT**

## **Appendix C – Travel Reimbursement per Labor Union Agreement**



### **ARTICLE IV** **Field Work-Travel Pay**

A radius of Thirty five (35) miles around each dispatch point will determine the free zone around that dispatch point or, if applicable, a radius of thirty five (35) miles around a particular shop.

- (A) When required to work outside of the local shop's free travel area, or a free travel area prescribed for the dispatch point from which he was assigned, each employee shall receive IRS approved mileage allotment plus travel time to and from the job as determined by the shortest route between the free travel zone and the job site.
- (B) Employer not having a signed Agreement with Sheet Metal Workers Local 66 shall use the closest dispatch point to the job site and use for their free zone that free zone which is prescribed for that dispatch point.
- (C) Dispatch points and accompanying free zones will be established as follows:
  - 1. In King County: A radius of thirty-five (35) miles will be plotted on a map using the Seattle Labor Temple location as a dispatch point. Employers whose shops are located within that area will utilize that area as their free zone.
  - 2. In Snohomish County: A radius of thirty-five (35) miles will be plotted on a map using the Everett City Hall as a dispatch point. Employers whose shops are located within that area will utilize that area as their free zone.
  - 3. In Kitsap County: A radius of thirty-five (35) miles will be plotted on a map using 632 Fifth Street, Bremerton, as a dispatch point. Employers whose shops are located within that area will utilize that area as their free zone.
  - 4. In Pierce County: A radius of thirty-five (35) miles will be plotted on a map using the Intersection of 38th Avenue and Interstate 5 location as a dispatch point. Employers whose shops are located within that area will utilize that area as their free zone.
  - 5. In Thurston County: A radius of thirty-five (35) miles will be plotted on a map using Olympia's present Labor Temple as a dispatch point. Employers whose shops are located within that area will utilize that area as their free zone.

## **Appendix C – Travel Reimbursement per Labor Union Agreement**



6. In Grays Harbor County: A radius of thirty-five (35) miles will be plotted on a map using the Aberdeen City Hall as a dispatch point. Employers whose shops are located within that area will utilize that area as their free zone.
7. In Cowlitz County: A radius of 35 miles will be plotted on a map using the Union Hall location as a dispatch point. Employers whose shops are located within that area will utilize that area as their free zone.
8. Employers whose shops are located outside of any of the areas described above within the jurisdiction of Sheet Metal Workers Local 66, shall have a free travel zone radius of thirty-five (35) miles from the employer's shop.
9. Employers whose shops are located in Pacific, Lewis, Southern Mason and Wahkiakum counties shall have a 35 mile free zone radius from their shop.
10. Any Employer conducting work at a job site which is closer to a dispatch point used in establishing a free zone from the Employer's shop may request qualified personnel from the closer dispatch point and pay mileage based on the free zone around that dispatch point.
11. Employers whose shops are located in Clallam, Island, Jefferson, Mason, and San Juan Counties shall have a thirty-five (35) mile free zone radius from their shop.
12. Employers whose shops are located outside of any of the areas described above within the jurisdiction of Sheet Metal Workers Local 66, shall have a free travel zone radius of thirty-five (35) miles from the employer's shop if that shop is in King or Snohomish Counties.
13. Any Employer conducting work at a job site which is closer to a dispatch point used in establishing a free zone from the Employer's shop may request qualified personnel from the closer dispatch point and pay mileage based on the free zone around that dispatch point. Once dispatched to an Employer, the individual's dispatch point will remain the one from which he was originally dispatched for as long as that individual remains continuously in the employ of that Employer.

(D) Shop:

1. A shop set up near a job site shall not be classified as a shop for the purpose of the Agreement unless the shop is in operation for ninety (90) working days excluding shutdowns due to conditions beyond the control of the Employer.

## **Appendix C – Travel Reimbursement per Labor Union Agreement**



A shop shall contain sufficient tools to fabricate sheet metal work, i.e., a ventilation shop shall include as a minimum, the following tools: an 8' hand brake, 36" manually operated shear, a lock former, layout bench, and an easy-edger or other turning tool. Tools for other types of shops shall be determined by mutual agreement

2. To qualify as a shop during the period of its existence, all duct work (including fittings) #18 GA and lighter shall be fabricated in the shop except: spot welding and stitching, the blanking of sheet to size for duct (not fittings) notching same when done by power machinery or equipment such as "Ductmaster", the fabrication of items such as cleats, government locks, hangers, angle iron flanges, louvers, duct turns, dampers, grill faces, diffusers, round pipe, and round pipe fittings for high pressure ventilating systems.
3. All employees involved in installations on Whidbey Island driving a private vehicle will receive ferry toll both ways plus ten (10) miles of mileage per day. Employer will pay all ferry tolls for employees traveling in company vehicle.

This payment will not be made if the Employer who is making the installation also fabricates on Whidbey Island.

### **ARTICLE V** **Subsistence**

- (A) Subsistence will be paid when the cost of daily mileage and travel time are in excess of the subsistence rate. The Employer shall provide first class board and lodging or pay an employee one hundred forty dollars (\$140) a regular work day or nine hundred eighty dollars (\$980) for a seven (7) day week and these monies shall be paid in advance, if requested. In the event subsistence is paid in connection with work performed in a geographical area covered by another labor agreement to which this union is signatory that provides for different rates of subsistence, then the employer shall provide first class board and lodging or pay the employee the higher amount of subsistence whether on a daily or weekly basis.
- (B) The Employer shall pay subsistence to the employee for the day he is directed to the job and any and all out-of-pocket expenses for the day he returns to the shop. Employee shall not be entitled to return expenses if he voluntarily quits.
- (C) When an employee is required to travel by bus, train, or plane he shall receive transportation and travel pay at the beginning from the bus terminal, railroad station, or airplane feeder closest to the Employer's shop and on termination back

## **Appendix C – Travel Reimbursement per Labor Union Agreement**



to the same point. The employee shall have the opportunity to get in the full eight hours including travel and job site time.

### **ARTICLE VI**

#### **Parking-Toll Charges**

- (A) Where free and ample parking is not available within four (4) standard city blocks of the job or project, the Employer will pay the necessary parking upon presentation of receipt and the Union agrees that employees will accept and utilize in lieu thereof any reasonable parking facility provided within four (4) standard city blocks (1200 feet) by the Employer. The Employer will notify the employees, in advance, the assigned parking area. When the nearest available or designated parking is in excess of eight (8) city blocks from the job site, employees will be paid the travel time rate of pay to and from the work site.
- (B) During working hours, the Employer will pay all necessary toll charges and all necessary fees for parking company vehicle, on company business, with or without receipt.
- (C) The employer will pay all necessary ferry charges.
- (D) When transportation (i.e. bussing, van, truck, etc.) is required to and from a project work site the Employer shall designate a loading point, loading time, and drop off time. Employees who are required to be transported shall be paid from the designated loading time until they are dropped off at the designated loading area. Travel time shall apply before the project start time and after the project quitting time.

**COMMUNITY RELATIONS & PUBLIC AFFAIRS COMMITTEE MINUTES**

JULY 6, 2020

11:00 A.M. – 11:23 A.M.

REMOTE ONLY

COUNCIL PRESENT: COUNCILMEMBERS CAROLYN COX AND ED KUNKEL

COUNCIL EXCUSED: COUNCILMEMBER STEADMAN (CHAIR)

STAFF PRESENT: TROY WOO, ELISSA FONTAINE

Councilmember Cox chaired the meeting in Councilmember Steadman's absence

ACTION: APPROVE COMMUNITY RELATIONS & PUBLIC AFFAIRS COMMITTEE  
AGENDA

MOTION: MOTION MADE, SECONDED AND CARRIED BY COUNCILMEMBERS KUNKEL  
AND COX

**LACEY MINSK SISTER CITY ASSOCIATION**

PRESENTER: HANNA ANDERS, PRESIDENT OF LACEY MINSK SISTER CITY  
ASSOCIATION

ACTION: APPROVE 2020 WORK PLAN AND BUDGET

STATUS: MOVED, SECONDED AND CARRIED BY COUNCILMEMBERS KUNKEL AND COX

Hanna Anders presented the Lacey Minsk Sister City Association 2019 Annual Report, 2020 Work Plan and Budget to the Committee.

Hanna spoke to Minsk's experience and response to the COVID-19 pandemic. The association is working on ways to reach citizens virtually due to a large amount of 2020 events being cancelled due to the pandemic.

## **TRANSPORTATION COMMITTEE MINUTES**

JULY 7, 2020  
12:00 – 1:22 P.M.  
REMOTE ONLY

COUNCIL PRESENT: COUNCILMEMBERS CAROLYN COX (CHAIR), MICHAEL STEADMAN, AND MALCOLM MILLER

STAFF PRESENT: TROY WOO, ROGER SCHOESSEL, AUBREY COLLIER, ELISSA FONTAINE

ACTION: APPOINT COUNCILMEMBER COX AS CHAIR OF THE TRANSPORTATION COMMITTEE

MOTION: MOTION MADE, SECONDED AND CARRIED BY COUNCILMEMBERS STEADMAN AND MILLER

### **TRANSPORTATION PROJECT UPDATE**

STAFF: SCOTT EGGER, PUBLIC WORKS DIRECTOR  
ROGER SCHOESSEL, CITY ENGINEER  
AUBREY COLLIER, DESIGN & CONSTRUCTION MANAGER

ACTION: INFORMATION ONLY

Aubrey Collier, Design & Construction Manager, provided a construction project update that affects both motor and pedestrian traffic. Projects include:

- College & 22<sup>nd</sup> Roundabout
- Mullen/Carpenter Roundabout
- Exit 111 DDI
- Hawks Prairie Roundabout
- Capitol City Water & Wastewater
- Depot Trail Amenity
- 2020 Overlay
- Ruddell Road Retaining Wall

Committee members highlighted staff success in obtaining grant funding and overall savings to City funds. Staff and council discussed ways to continue to educate the public relating to construction updates and closures.