

**WALDPORT CITY COUNCIL
SEPTEMBER 8, 2016
MEETING NOTICE AND AGENDA**

The Waldport City Council will meet at 2:00 p.m. on Thursday, September 8, 2016 in the City Council Meeting Room, 125 Alsea Highway to take up the following agenda:

1. CALL TO ORDER
2. MINUTES: *August 11, 2016*
3. PUBLIC COMMENTS/PRESENTATIONS
4. DISCUSSION/ACTION ITEMS
 - A) *Proclamations:*
 1. *National Recovery Month*
 2. *Constitution Week*
 3. *Cruzin' For Crab Festival*
 - B) *Resolution Setting Dump Fees*
 - C) *Safety Discussion*
 - D) *Industrial Park Feasibility Study/Master Plan*
 - E) *Other Issues*
5. COUNCIL COMMENTS AND CONCERNS
6. REPORTS
 - City Manager*
 - Public Works Director*
7. EXECUTIVE SESSION(S):
 - A) *Pursuant to ORS 192.660(2)(h): To consult with counsel concerning the legal rights and duties of a public body with regard to current litigation or litigation likely to be filed.*
 - B) *Pursuant to ORS 192.660(2)(e): To conduct deliberations with persons designated by the governing body to negotiate real property transactions.*
8. ACTIONS, IF ANY, FROM EXECUTIVE SESSION
9. GOOD OF THE ORDER
10. ADJOURNMENT

The City Council Meeting Room is accessible to all individuals. If you will need special accommodations to attend this meeting, please call City Hall, (541)264-7417, during normal office hours.

* Denotes no material in packet

Notice given this 2ND day of September, 2016 - Reda Q. Eckerman, City Recorder

WALDPORT CITY COUNCIL
AUGUST 11, 2016
MEETING MINUTES

1. CALL TO ORDER AND ROLL CALL: Mayor Woodruff called the meeting to order at 2:00 p.m. Mayor Woodruff and Councilors O'Brien, Gates, Cutter and Holland were present. Councilor Christenson was excused. Councilor Campbell arrived at 2:30 p.m. A quorum was present.

2. MINUTES: The Council considered the minutes from July 14, 2016. Councilor Holland **moved** to approve the minutes as presented. Councilor Gates **seconded**, and the motion **carried** unanimously on a voice vote.

3. CITIZEN COMMENTS/PRESENTATIONS: None.

4. DISCUSSION/ACTION ITEMS:

A. Former Public Works Property: Jeff Alexander was present to speak about his preliminary proposal for the property. Citing 27 years as a brewmaster/distiller/vinter, he outlined his plans for a brewery, distillery, and brew pub. Additionally, he indicated that he would like to include an art gallery, and some outdoor recreational activities such as a kayak launch, bocci ball or other such offerings. Following a brief discussion, Councilor Cutter **moved** to authorize City Manager Kemp to enter into negotiations with Mr. Alexander, with a time limit of 90 days, with any mutually acceptable agreement brought forth to the Council. Councilor Holland **seconded**, and the motion **carried** unanimously on a voice vote.

B. Park Rules: The Council considered the proposed resolution. City Manager Kemp explained that adoption of the rules would enhance the capability of the Sheriff's Department in controlling problems. Councilor Cutter noted concern regarding the Crestline Park area and the proximity of the trees, which could harbor potential dangers for people utilizing the park. Public Works Director Andry will obtain an estimate on the cost for fencing. Further discussion ensued regarding alternative methods of enforcement and surveillance, such as enhanced citizen patrols, cameras, neighborhood watch groups, etc. Councilor Cutter noted that those items may be a topic for further discussion. He then **moved** to approve Resolution No. 1215. Councilor Gates **seconded**. A concern was raised regarding #9, with regard to motorized vehicles. Councilor Cutter **amended** his motion to include the words "or as authorized by the City" after the words "parking areas". Councilor Gates **seconded** the amendment, and the motion, as amended, then **carried** on a voice vote. Another brief discussion took place regarding the possibility of forming a committee to explore ways to make parks safer and more user friendly. Mayor Woodruff suggested waiting to see what results may come from the Sheriff's office now that the new rules are in place. The topic will be discussed at the September meeting, with a possible workshop then scheduled for October or November.

C. Housing Workshop: A lengthy discussion ensued regarding the issue of affordable housing and the various factors that have contributed to the problem, on a local as well as a national level. Economic Development Planner Rachel Cotton noted that currently working groups are being formed throughout cities and counties to eventually

present a unified front to address the issue. Following further discussion it was determined that staff will continue to work on the process, and will keep the Council apprised on what further steps or actions may need to be taken.

5. Council Comments/Concerns: Councilor Campbell noted an issue that should be looked at was the Community Center and certain groups' sense of entitlement. Mr. Kemp will follow up with this. Councilor Campbell asked about the condition of the dump station. Discussion ensued regarding the potential for relocation, and the current dump fees which, according to Public Works Director Andry, do not cover the costs for treatment. He noted that most dump stations are charging at least \$8 per dump, and the City has been charging \$3 per dump since that rate was established in 1993. Following further discussion, Councilor Campbell **moved** to increase the dump fees to \$10. Councilor Cutter **seconded**, and the motion **carried** unanimously on a voice vote. A resolution memorializing the Council decision and setting a start date will be brought to the September Council meeting for consideration and adoption. Councilor Campbell brought up the issue of banners. It was suggested that the City might just want to do without them, considering the expense of purchase/installation and the effects of coastal weather. It was also suggested that possibly metal sculptures or LED light displays might be more cost effective.

6. REPORTS: The reports from the City Manager, Public Works Director, City Planner and Code Compliance Officer were in the packet materials. City Manager Kemp reviewed his report. Discussion ensued regarding the proposed site for the sea lion sculpture, and the Council concurred with the proposed site, near the intersection of Norwood, Starr and Highway 101, though Councilor Cutter noted a concern about people jaywalking to view the sculpture.

8. GOOD OF THE ORDER: City Manager Kemp noted that the Friends of the Library booksale would be August 12 and 13, up at the new Public Works facility on Ann Street. He noted that citizens have commended the Public Works crew for all of their hard work in assisting with this project.

8. ADJOURNMENT: At 4:05 p.m., there being no further business to come before the Council, the meeting was adjourned.

Respectfully submitted,

Reda Q. Eckerman, City Recorder

APPROVED by the Waldport City Council this ___ day of _____, 2016.

SIGNED by the Mayor this ___ day of _____, 2016.

Susan Woodruff, Mayor



City of Waldport

P.O. Box 1120

Waldport, Oregon

Phone: (541) 264-7417 Fax: (541) 264-7418

TTY: (800)735-2900

PROCLAMATION

*****HEAR YE*****HEAR YE*****HEAR YE*****

WHEREAS, mental and/or substance use disorders affect all communities nationwide, but with commitment and support, people with these disorders can achieve healthy lifestyles and lead rewarding lives in recovery. By seeking help, people who experience mental and/or substance use disorders can embark on a new path toward improved health and overall wellness. The focus of **National Recovery Month** this September is to celebrate their journey with the theme *Join the Voices for Recovery: Our Families, Our Stories, Our Recovery!* **Recovery Month** spreads the message that behavioral health is essential to health and one's overall wellness, and that prevention works, treatment is effective, and people recover; and

WHEREAS, the impact of mental and/or substance use disorders is apparent in our local community, and an estimated 1 in 4 people in Lincoln County are affected by these conditions. Through **Recovery Month**, people become more aware and able to recognize the signs of mental and/or substance use disorders, which can lead more people into needed treatment. Managing the effects of these conditions can help people achieve healthy lifestyles, both physically and emotionally.

WHEREAS, the **Recovery Month** observance continues to work to improve the lives of those affected by mental and/or substance use disorders by raising awareness of these diseases and educating communities about the prevention, treatment, and recovery resources that are available;

NOW THEREFORE, I, Susan Woodruff, Honorable Mayor, do hereby *PROCLAIM THE FOLLOWING*:

THAT, the month of September, 2016 be declared as *NATIONAL RECOVERY MONTH* in Waldport, and call upon our community to observe this month with compelling programs and events that support this year's observance.

SIGNED, this 8th day of September, 2014.

Susan Woodruff, Mayor





City of Waldport

P.O. Box 1120
Waldport, Oregon 97394
Phone: (541) 563-3561 Fax: (541) 563-5810
TTY: (800)735-2900

Proclamation

*****HEAR YE*****HEAR YE*****HEAR YE*****

WHEREAS, IT IS THE PRIVILEGE AND DUTY OF THE AMERICAN PEOPLE TO COMMEMORATE THE TWO HUNDRED TWENTY-EIGHTH ANNIVERSARY OF THE DRAFTING OF THE CONSTITUTION OF THE UNITED STATES OF AMERICA WITH APPROPRIATE CEREMONIES AND ACTIVITIES; AND

WHEREAS, PUBLIC LAW 915 GUARANTEES THE ISSUING OF A PROCLAMATION EACH YEAR BY THE PRESIDENT OF THE UNITED STATES OF AMERICA DESIGNATING SEPTEMBER 17 THROUGH 23 AS CONSTITUTION WEEK,

NOW THEREFORE, I, SUSAN WOODRUFF, BY VIRTUE OF THE AUTHORITY VESTED IN ME AS MAYOR OF THE CITY OF WALDPORT, OREGON, DO HEREBY *PROCLAIM THE FOLLOWING*:

THAT, THE WEEK OF SEPTEMBER 17 THROUGH 23, 2016 SHALL HEREBY BE DESIGNATED AS
CONSTITUTION WEEK

AND URGE ALL CITIZENS AND STAFF TO STUDY THE CONSTITUTION, AND REFLECT ON THE PRIVILEGE OF BEING AN AMERICAN WITH ALL THE RIGHTS AND RESPONSIBILITIES WHICH THAT PRIVILEGE INVOLVES.

SIGNED, THIS 8th DAY OF SEPTEMBER, TWO THOUSAND AND SIXTEEN.



SUSAN WOODRUFF, MAYOR



City of Waldport

P.O. Box 1120
Waldport, Oregon 97394
Phone: (541) 563-3561 Fax: (541) 563-5810
TTY: (800)735-2900

Proclamation

*****HEAR YE*****HEAR YE*****HEAR YE*****

WHEREAS. ON THE 8th DAY OF SEPTEMBER, 2016, THERE WAS HELD IN THE CITY OF WALDPORT, LINCOLN COUNTY, OREGON, A COUNCIL MEETING AT WHICH THERE WAS SUBMITTED TO THE COUNCIL OF THE CITY OF WALDPORT, THE FOLLOWING EVENT...TO WIT:

CRUZIN' FOR CRAB FESTIVAL

AND WHEREAS. A CONCERNED COUNCIL HAS DETERMINED THAT A CRUZIN' FOR CRAB FESTIVAL WAS DESIRABLE, AND

WHEREAS. THE CHAMBER OF COMMERCE HAS ALREADY ORGANIZED SUCH A CELEBRATION, WITH JURISDICTION OVER SAID CELEBRATION, AND

WHEREAS. SAID CELEBRATION WILL BE HELD AT THE "OPEN SPACE" (FORMER HIGH SCHOOL PROPERTY AND SURROUNDING AREA);

NOW THEREFORE. I, SUSAN WOODRUFF, MAYOR, DO HEREBY *PROCLAIM* THE FOLLOWING:

THAT. THE 24TH DAY OF SEPTEMBER, 2016 SHALL HEREBY BE DESIGNATED AS THE *CRUZIN' FOR CRAB FESTIVAL* AND ALL CITIZENS ARE ENCOURAGED TO PARTICIPATE IN THE FOREGOING:

CRUZIN' FOR CRAB FESTIVAL

SIGNED. THIS 8th DAY OF SEPTEMBER, TWO THOUSAND AND SIXTEEN.

SUSAN WOODRUFF, MAYOR



RESOLUTION NO. _____

A RESOLUTION SETTING DUMP FEES FOR THE CITY OF WALDPORT DUMP STATION LOCATED AT 625 NW STARR STREET AND REPLACING RESOLUTION NO. 707.

WHEREAS, it has been brought to the attention of the Waldport City Council that the current dump fee of \$3 set by Resolution No. 707 as adopted in April of 1993 is no longer adequate to cover the actual treatment costs; and

WHEREAS, the Council, at their regular meeting on August 11, 2016, voted unanimously to raise the dump fee to \$10 in order to cover those costs;

NOW, THEREFORE, BE IT RESOLVED by the Common Council of the City of Waldport as follows:

Section 1. The dump fee for the Waldport Dump Station is hereby increased to \$10, effective as of the date of adoption of this resolution.

Section 2. Resolution No. 707 is hereby replaced, effective as of the date of adoption of this resolution.

PASSED by the Common Council of the City of Waldport this ____ day of _____, 2016.

SIGNED by the Mayor this ____ day of _____, 2016.

Susan Woodruff, Mayor

ATTEST:

Reda Eckerman, City Recorder



CITY COUNCIL MEETING AGENDA COVER SHEET FOR DISCUSSION / ACTION

TITLE OF ISSUE: Safety
REQUESTED BY: City Council
FOR MEETING DATE: September 8, 2016

SUMMARY OF ISSUE:

There have been community concerns regarding safety in neighborhoods and parks.

STAFF RECOMMENDATION or ACTION REQUESTED:

Review safety concerns and determine course of action.

BACKGROUND:

At the last meeting, the City Council determined to hold a workshop on safety, with a public meeting or process to include members of the community. Below are some ideas for discussion:

1. Participants
 - a. Agencies: Sheriff, Fire, Schools
 - b. Community groups: Citizens Patrol, Chamber, Lions, CERT
2. Ideas
 - a. Sidewalks (Safe Routes to Schools)
 - b. Rules signs
 - c. Design (e.g., fence along park perimeter, cameras)
 - d. Neighborhood Watch (National Sheriffs' Association sponsorship)—separate and distinct from Citizens Patrol?
 - e. Strategies¹

¹ <http://www.ncpc.org/topics/home-and-neighborhood-safety>

- i. Celebrate neighborhood accomplishments
- ii. Citizen volunteers (Citizens Patrol)
- iii. Environmental design (local initiatives: lighting, security hardware, access control, visibility, landscaping)
- iv. Crime tip rewards
- v. Directory of services
- vi. Presentations by law enforcement/fire
- vii. Park watch (similar to neighborhood watch)
- viii. Directory of services/who to contact for help
- ix. Safer design of public areas (related to environmental design)
- x. Youth-led community service projects

3. Process

- a. Public Meetings
- b. Problems
- c. Solutions
- d. Priorities
- e. Costs
- f. Budget
- g. Funding
- h. Schedule
- i. Safety Plan
- j. Implementation

Please note that the current City budget does not have appropriations for public safety, other than the Sheriff's contract, code compliance, and court. There may be some urban renewal funds available for certain capital investments, but operations, maintenance or improvements outside the urban renewal area would require other sources, such as General Fund.



CITY COUNCIL MEETING AGENDA COVER SHEET FOR DISCUSSION / ACTION

TITLE OF ISSUE: Industrial Park Feasibility Study/Master Plan

REQUESTED BY: City Manager/City Planner

FOR MEETING DATE: September 8, 2016

SUMMARY OF ISSUE:

The City of Waldport received a \$60,000 Special Public Works Fund Grant from the State of Oregon Infrastructure Finance Authority ("IFA"), for preparation of a feasibility study (Tier 1) for the Waldport Industrial Area. Tier 1 is now complete, and ready for review and consideration by the City Council before starting Tier 2. The IFA grant also requires a \$25,000 match by the City, which involves \$15,000 cash and \$10,000 in-kind services, and is earmarked for Tier 2. The balance of Tier 2 is intended to be paid by a \$60,000 Technical Assistance Grant from the Department of Land Conservation and Development ("DLCD"), and contribution totaling \$25,000 from property owners in the Industrial Area.

STAFF RECOMMENDATION or ACTION REQUESTED:

Review and approve Waldport Industrial Area Master Plan (Tier 1 – Feasibility Study), scope of work for Master Plan – Tier 2, and property owner contribution methodology.
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BACKGROUND:

There exists a large industrially-zoned area that is located along Crestline Drive in the southern part of the city. It's marginally improved, mostly due to transportation constraints and lack of a connection to the public sewer system. A major prior use was a landfill, which has since been capped and vented. City Council approved two major goals for the industrial park: one is to prepare a master plan, and the other is to secure shovel-ready status.

The master plan involves ascertaining development potential and infrastructure needs, after which engineering and construction of infrastructure improvements can occur, and shovel-ready certification can be secured. The initial step of the process is to prepare a feasibility study to assess the site. The feasibility study, which is Tier 1, will be incorporated into Tier 2, the master plan itself. The final draft feasibility study is attached. Below is a summary of pertinent topics:

Existing Conditions

The 161.4 gross acre industrial area is only marginally developed, with about 95,000 square feet of building space. The main impediments to growth and development are lack of sewer, water capacity, and roadway connections. The City would provide sewer, the area is within the Southwest Lincoln County Water District, and transportation is via County and City roads. The properties are under more than 20 ownerships, with various Dahl entities owning the majority.

Site Plan & Potential Development

The site plan strives to follow existing street and lot layouts where possible, while also following the general topography and terrain of the area. As shown in Table 4.1, over 111 acres are available for development. Assuming an aggressive potential lot coverage of 50% for demand analysis, this would equate to nearly 2.4 million square feet in total development over time.

Transportation Connections

Four alternative roadways were preliminarily assessed, to link the industrial area with Highway 101. Wakonda Beach Road is the currently desired roadway in the interim, with a more direct linkage being developed as need and funding becomes available. Table 7.2 on page 58 summarizes the four alternatives. The master plan will further address this issue. The need for a direct link has been a part of various planning efforts over time.

Utilities

The industrial area is within the service boundaries of SWLCWD, and there are constraints and opportunities that will be assessed in the master plan, depending on which water agency is providing domestic water services and fire protection services.

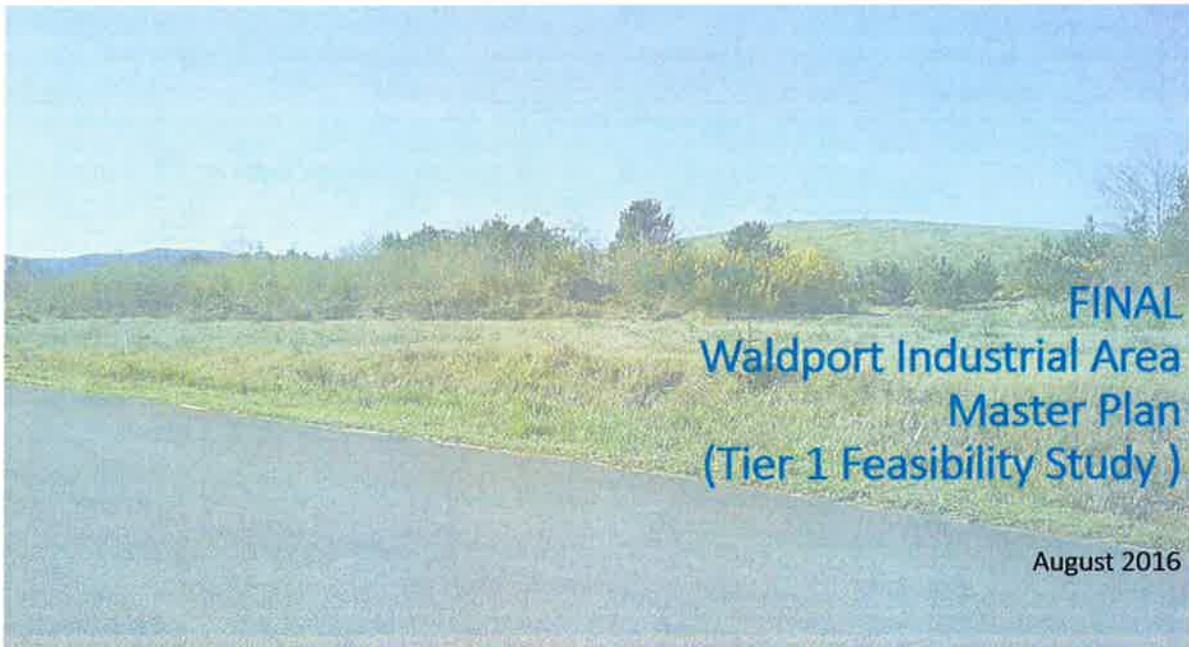
Master Plan – Tier 2

The next step, after approval of the feasibility study, is to proceed with Tier 2. The attached work summary provides details. The work is divided into base tasks and additional (optional) tasks. The base tasks will be done with the master plan. These include traffic, utilities, storm drain, and site planning. The added tasks may be done if needed and as funding becomes available in the future. These include wetlands, biological, and survey. Landfill has been isolated and removed.

Available funding covers the base work, with a budget of \$100,000. The attached worksheet shows how the funding works, with \$60,000 from the DLCDD grant, \$15,000 from the City (as a match to the previous IFA grant), and \$25,000 from property owners. Also attached is a table that allocates shares to each owner, based on 50% for land size, and 50% on potential net increase in building size. There are some adjustments, eliminating those properties that the site plan programs as open space, storm water management, and the existing landfill, as well as reducing South Lincoln Resources to \$0 as it is a non-profit. Letters will be sent to each owner outlining the master plan benefits and asking for their contribution. Each owner will also receive a copy of the feasibility study. The proposed updated schedule is as follows:

1. Feasibility study and analysis (Tier 1) - COMPLETED	Dec 1, 2015 – Aug 31, 2016
2. Goal setting, stakeholder input and public engagement (ongoing)	Apr 1, 2016 – Jun 30, 2019
3. Receive commitments from Property Owners	Sep 15, 2016 – Oct 15, 2016
4. In-depth analysis and detailed master planning (Tier 2 Base)	Sep 15, 2016 – Jun 30, 2017
5. Master planning (Tier 2 Add)	TBD as needed; pending funding
6. Secure financing of certain improvements, secure easements or acquire land, secure development partners	Jul 1, 2017 – Jun 30, 2018
7. Engineering, permitting & construction of certain improvements	Jul 1, 2017 – Jun 30, 2019

- Attachments: Feasibility Study (Tier 1 of Master Plan)
 Master Plan Scope of Work and Budget (Tier 2)
 Table – Master Plan Funding Model
 Table – Contribution Allocations



FINAL
Waldport Industrial Area
Master Plan
(Tier 1 Feasibility Study)

August 2016

Civil West

Engineering Services, Inc.



Newport Office

609 SW Hubert Street

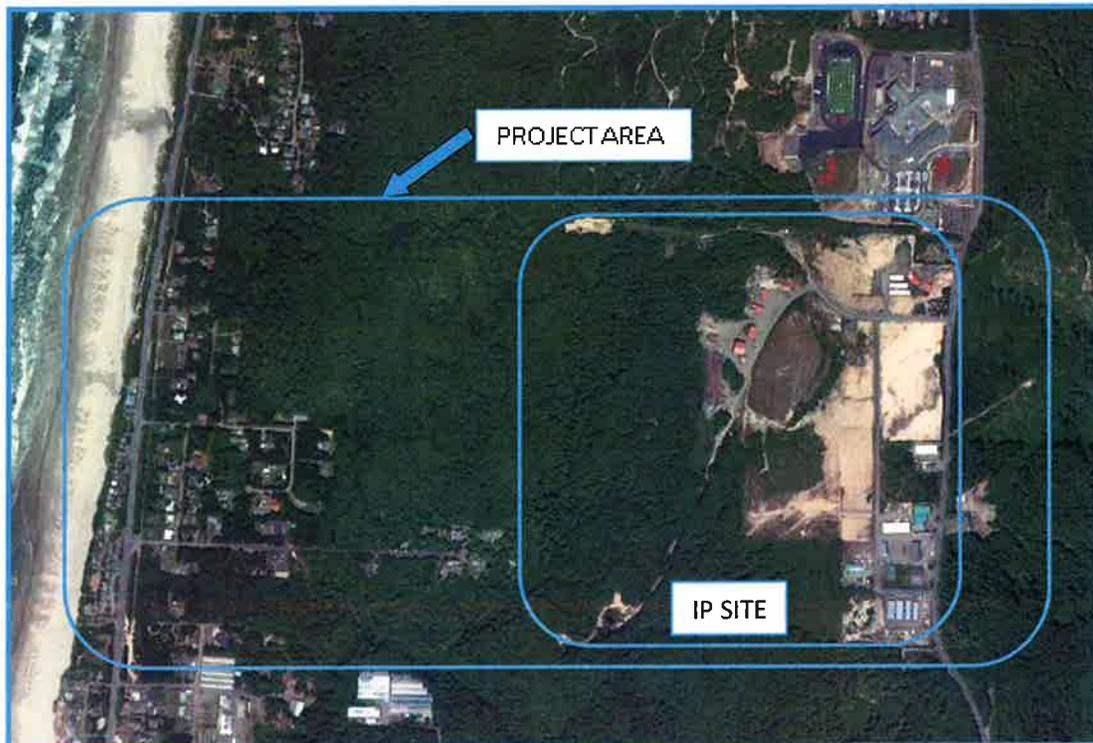
Newport, OR 97365

541-264-7040

Executive Summary

The City of Waldport contracted with Civil West Engineering in October 2015 to conduct a Feasibility Study (Tier 1) and Master Plan (Tier 2) for the City of Waldport Industrial Area. This area includes approximately 160-acres of industrially-zoned property that is located along Crestline Drive in the southern part of the city. The area is currently only marginally improved due to transportation constraints and a lack of connection to the public water and sewer systems.

The City's long-term objective is to master plan the entire 160-acre site in order to ascertain its development potential, circulation and utility infrastructure needs, and environmental impacts. Once this information is collected and evaluated, the City's goals are to proceed with engineering and construction of improvements to service the area to ready it for industrial use.



The purpose of this project is to evaluate the best opportunities for the City of Waldport to expand and develop the City's employment base. The eventual development of the Industrial Park Master Plan will support and build upon the local community, Lincoln County and State of Oregon economic development vision and goals.

The focus of this Tier 1 Feasibility Study will be to identify transportation alternatives, utility infrastructure requirements and potential environmental constraints in order to service the area and ready it for industrial development.

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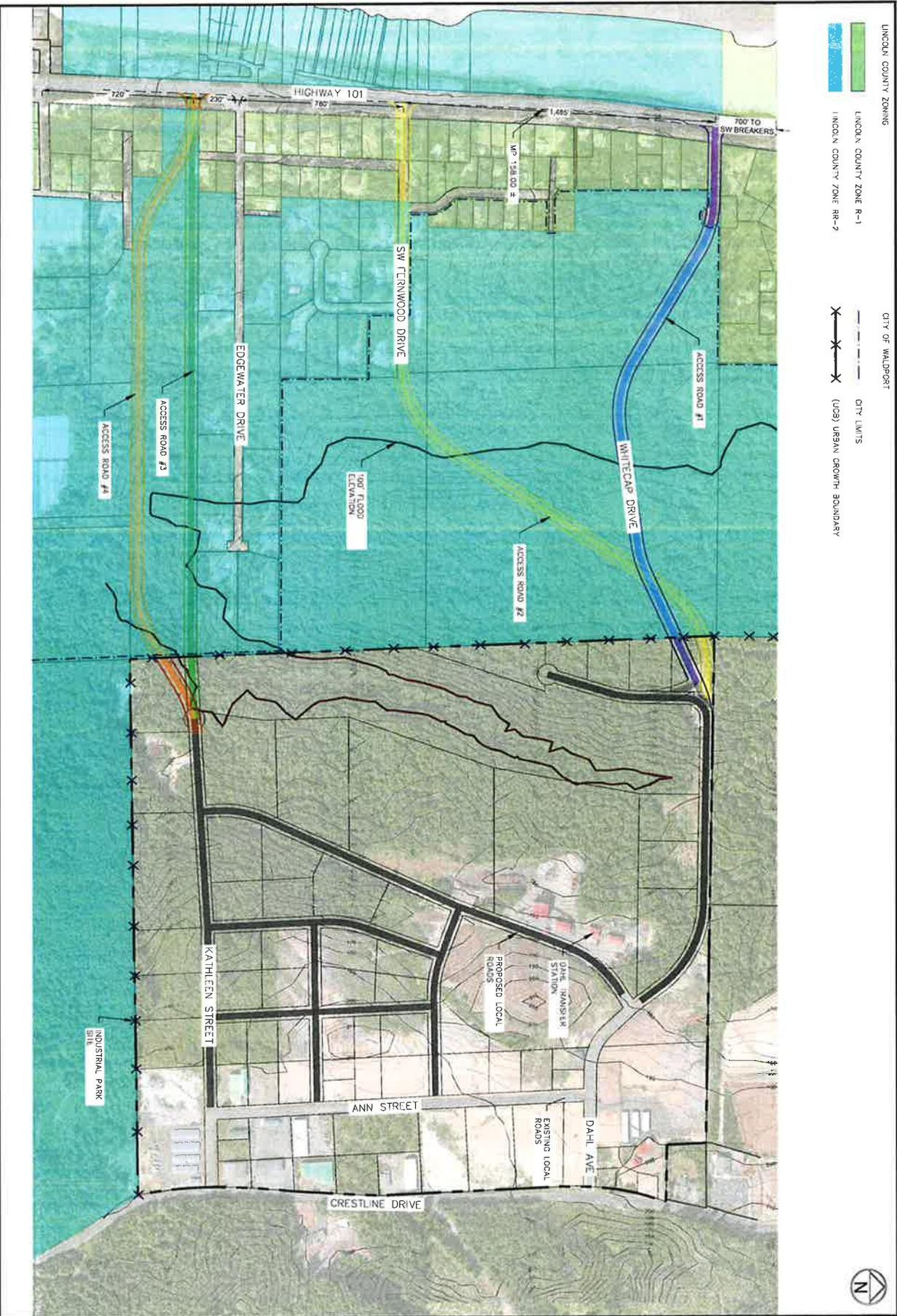
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LINCOLN COUNTY ZONING

- LINCOLN COUNTY ZONE R-1
- LINCOLN COUNTY ZONE RR-2

CITY OF WALDPORST

- CITY LIMITS
- X (UCS) URBAN GROWTH BOUNDARY

FIGURE 1.1

0 1" NTS

DRAWN BY: KR
DATE: 5/6/2016

INDUSTRIAL PARK

SITE & ACCESS ROADS LAYOUT

CITY OF WALDPORST
LINCOLN COUNTY, OREGON



1.0 Introduction

The City of Waldport Industrial Area Master Plan builds upon the community's economic development vision, goals and policies developed through Goal 9 of the Waldport Comprehensive Plan Goals & Policies (updated September 2013). In summary, Waldport's vision is to create a business-friendly environment that increases living wage employment opportunities. The first four of the eight economic development policies from the Comprehensive Plan all support the study and development of the Industrial Area off of Crestline Drive.

Adopted state and local plans were reviewed to establish a policy framework for the project. Key local documents included the City of Waldport Transportation System Plan, Comprehensive Plan, Development Code, Water and Wastewater Master Plans, South Waldport Wastewater LID, and Parks Master Plan. Lincoln County documents included the Transportation System Plan, Comprehensive Plan, and Zoning Code. State documents included the Oregon Transportation Plan, the Oregon Highway Plan, the Oregon Bicycle and Pedestrian Plan, the Transportation Planning Rule, the Access Management Rule, and the Pacific Coast Scenic Byway Corridor Management Plan for US 101 in Oregon. The Southwest Lincoln County Water District (SWLCWD) Water Management and Conservation Plan (2014) has also been included as reference. The policy framework provides the parameters within which the City of Waldport Industrial Area Master Plan must be developed. Alternately, these regulations can be the subject of changes identified during the planning process in order to ensure consistency between the City of Waldport Industrial Area Master Plan and existing state and local regulations. The full site layout is shown on Figure 1.1.

1.1 Goals and Objectives

In order to fully prepare the site for industrial development, considerable engineering and environmental analysis is required. As a first step, the City and property owners in the project area have decided to complete a preliminary Tier 1 study to determine the feasibility of the proposed improvements. Subsequently, if the preliminary studies determine that the desired improvements are indeed feasible, the City can move forward with the comprehensive analysis and design services that would be necessary for the site's full development.

Four alternative collector access roads will be developed and evaluated in this study in order to investigate preferable routes to address the safety, capacity, mobility, and connectivity of the site transportation system. Access alternatives will also focus on minimizing environmental impacts, encouraging economic vitality, and making efficient use of available funds.

The list below summarizes the services that will be required in order to adequately assess the development potential of the site. Each item is broken into two tiers in order to roughly identify the scope of services for the completion of preliminary feasibility studies (Tier 1), and for the completion of a comprehensive analyses (Tier 2). This report will focus only on the Tier 1 preliminary Feasibility Study. Additional funding will be necessary in order to complete the full scope of Tier 2 tasks under items 1b, 5b, 6b and 7b, as described above.

1. Traffic

a. **Tier 1 – Preliminary Study:** This analysis will include preliminary coordination with ODOT to determine traffic demand into and out of the site. Preliminary trip generation analyses will be completed in order to address the need for roadway improvements up to the site.

b. **Tier 2 – In-depth Analysis:** In this item, we will coordinate with ODOT to collect and analyze traffic data, including traffic counts and trip generation calculations, to assess the need for roadway improvements on and leading up to the site. Our report will include recommendations for roadway improvements, as determined by the analysis.

2. Utilities (Water, Sewer, Electricity)

a. **Tier 1 – Location, Grade & Alignment:** This study will determine the proximity of water, sewer, and power. A preliminary analysis would identify the need for improvements to the existing systems in order to adequately service the developed site.

b. **Tier 2 – Capacity, Supply & Demand:** An in-depth Master Plan of the utility systems on and off the site will be required to provide adequate water services, sewer services, and power to the proposed developments. This plan will address the capacity requirements of the developed site, and analyze this demand relative to the existing system's capacity. Recommendations will be made for improvements to the utility networks in order to sufficiently service the developed site.

3. Storm Drain / Hydrology:

a. **Tier 1 – Hydrology Study:** In this item, we will complete a preliminary study to assess the existing storm water flows on the site. In addition, the study will address potential recommendations to manage additional flows due to development of the site.

b. **Tier 2 – System Master Plan:** In this item, we will prepare a master plan report identifying storm drainage flows on and around the site, making recommendations for improvements to the storm drainage system, and identifying potential locations for future pipes, catch basins, manholes, etc.

4. Site Planning

a. **Tier 1 – Schematic Master Planning:** Under this item, we will assist the City in laying out roadways and lot boundaries on the site. This preliminary effort will generate schematic ideas for the future development projects to take place on the site.

b. **Tier 2 – Detailed Master Planning:** In this item, we will complete site Master Planning services to establish a precise lot and roadway layout for the entire useable area of the site.

5. Survey

a. **Tier 1 – N/A**

b. **Tier 2 – Data Collection:** In this item, our surveyor will collect the survey data for each data point in the wetland delineation to be added to the overall project drawings, as well as complete a survey of all the property boundaries on the site.

6. Biological/Wetlands

a. **Tier 1 – Preliminary Assessment:** We will complete a review of potential environmental issues related to the project. The purpose of our review will be to make a visual assessment of the existing Industrial Park, known proposed conceptual improvements, and environmental requirements related to development within the project area.

b. **Tier 2 – Report:** In this item, we will complete a report that documents the findings of the biological and wetlands preliminary assessment, identifying the constraints that exist on the site for its use and development, including findings, narrative, and other key information that may be required by a regulatory agency should a submittal be required. The report would also include recommendations for mitigation or avoidance as it relates to the site development.

8. Landfill

a. **Tier 1 – Determination:** In this item, we would determine the viability of development on the site, particularly in the area that has been used as a landfill. Our analysis would assess the environmental regulations and restrictions that exist relative to construction on and around the landfill site.

b. **Tier 2 – Remediation Analysis:** Depending on the results of “Tier 1 – Landfill Determination”, it is possible that extensive geotechnical engineering may be required for the development of the landfill site. This engineering analysis could include soil tests, compaction tests, lab analyses, and extensive permitting.

2.0 Regional Demographics and History

The City of Waldport, incorporated in 1911, is located on the Oregon coast near the southern boundary of Lincoln County (Figure 2.1).

The north, east, and west edges of the city are formed by the Alsea Bay. The Alsea River, which has the largest basin in Lincoln County, empties into Alsea Bay east of the city. The west edge of Waldport is near the mouth of Alsea Bay and is exposed to the effects of Pacific Ocean storms and waves.

A bluff divides the city into northern and southern halves. The main part of the city is located north of the bluff, on a low-lying, flat alluvial shelf. South of the bluff, where the Industrial Park is located, the terrain varies from gently rolling to steep, with hills reaching elevations of well over 100 feet.



Figure 2.1 Vicinity Map

2.1 Population

According to Portland State University's College of Urban Public Affairs Population Research Center, the population of Waldport decreased by 3.6% between 2005 and 2010. The growth steadily declined, after a peak of 2,110 in 2005 until 2012, when it leveled off at approximately 2,040. In the past 3 years, it has been increasing at an average rate of 1.7%.

The most reliable projection of population for this study was determined to be one based on the historical trend of previous years. The decline in population in Waldport between 2000 and 2010 does not correspond with the number of new water service connections added annually in Waldport during this same period (an average of 14.8 EDU's per year). One explanation may be that a significant number of new services have been added for second homes or vacation rentals.

Table 2.1 summarizes population growth for the City of Waldport over the past 15 years.

Year	Total Population
2000 ¹	2,050
2005	2,110
2006	2,095
2007	2,079
2008	2,064
2009	2,048
2010 ¹	2,033
2011 ²	2,040
2012 ²	2,040
2013 ²	2,050
2014 ²	2,060
2015 ²	2,075

¹ United States Census Bureau

² Portland State University's College of Urban Public Affairs

Table 2.1 City of Waldport Population Growth

2.2 Zoning

The City of Waldport Comprehensive Plan has adopted a Land Use and Zone map, as shown in Figure 2.2. As illustrated, the Industrial Park area has been zoned as I-P or Planned Industrial Zone and is regulated by the Waldport Development Code Title 16.36 - Planned Industrial Zone I-P.

Adjacent land to the west and south of the project site has been zoned RR-2 or Rural Residential Zone, as regulated by the Lincoln County Comprehensive Plan, Land Use Planning - Chapter 1.1345. The Lincoln County RR-2 zoned land shown on Figure 2.2 is located within the City limits, but outside of the City of Waldport UGB. In addition, all Access Road options will encounter Lincoln County R-1 and RR-2 property. See Figure 2.3 for the Lincoln County zoning in this area.

This feasibility study and the Master Plan will adhere to the regulations of both the City of Waldport and Lincoln County zoning regulations, as required.

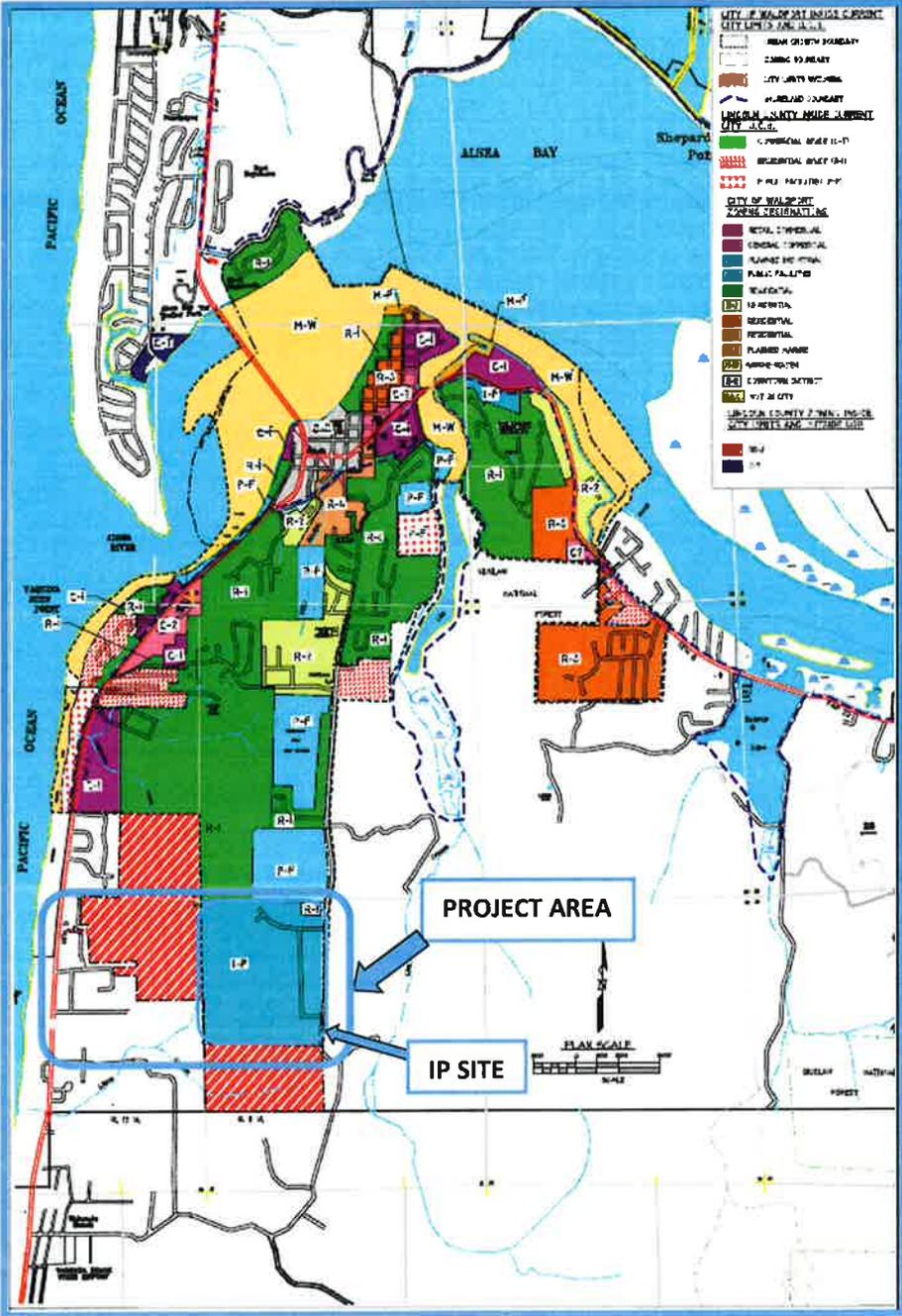


Figure 2.2 City of Waldport Land Use and Zone Map (October 2011)

Long-Range Plan 1995-2015' in 2009. One of its identified priority goals (#6) is in the area of business retention and expansion/manufacturing, where they are aiming at pursuing the growth and establishment of industrial sites in Lincoln County to serve the needs of "traded sector" jobs, a key component of a healthy economy. The County understands that appropriate siting and establishment of industrial land is important to the ability to diversify the economy.



Ten Year Update on Lincoln County, Oregon's Economy

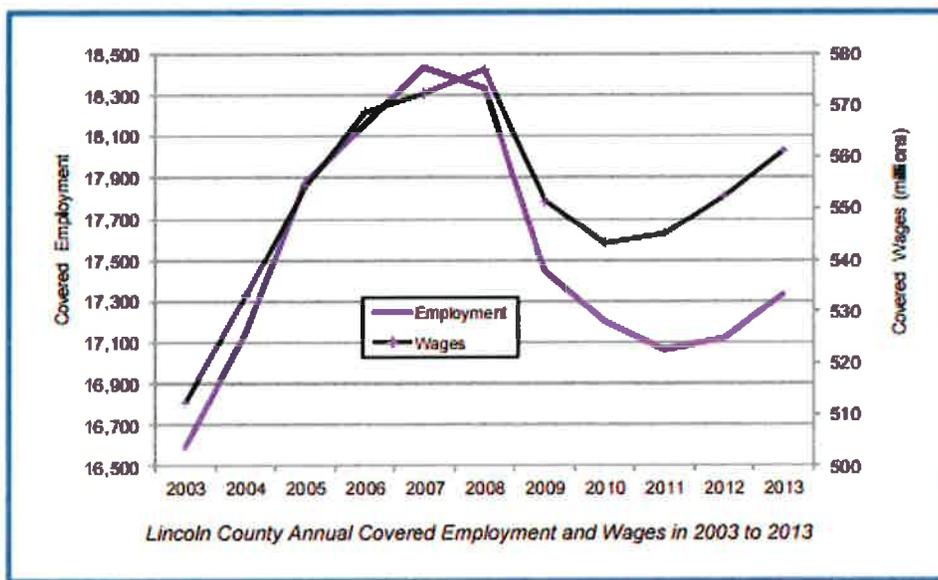


Figure 2.4 Ten Year Update on Lincoln County, Oregon's Economy (2014)

Goal 7 of the Lincoln County 10-Year Update discusses agriculture and forest products. The County supports ways to protect, diversify and add value to natural resource products harvested within Lincoln County, and to market those products. Adding value through manufacturing, packaging or marketing techniques will help create or retain jobs in Lincoln County. We need to find creative opportunities to add value to natural resource products in farming and timber.

3.0 Current Conditions

3.1 Industrial Park Site

The Industrial Park site is an existing 161.4 gross acre industrially-zoned area that is located along Crestline Drive in the southern part of the city. The area is currently only marginally improved due to transportation constraints and a lack of connection to the public water and sewer systems. The City has identified the development of this site as an opportunity to expand and develop the City's employment base.

There are currently a total of 35 lots, 13 of which have been improved, in the industrial park, as shown in Figure 3.1. This Figure also details the zoning and acreage of the lots surrounding the site, which will inform the future development of the area in terms of access, zoning and development code requirements.

Twenty-five of these lots will remain as they are. The table on Figure 3.1 outlines the 10 lots that are planned to be subdivided, with respect to Owner, lot size, acreage and proposed new and partial new lots.

Table 5.1 in Section 5.1 outlines the total Gross and Net acreages of the proposed Industrial Site layout.



Image 3.1.1 Anne Street – Dahl Avenue Intersection

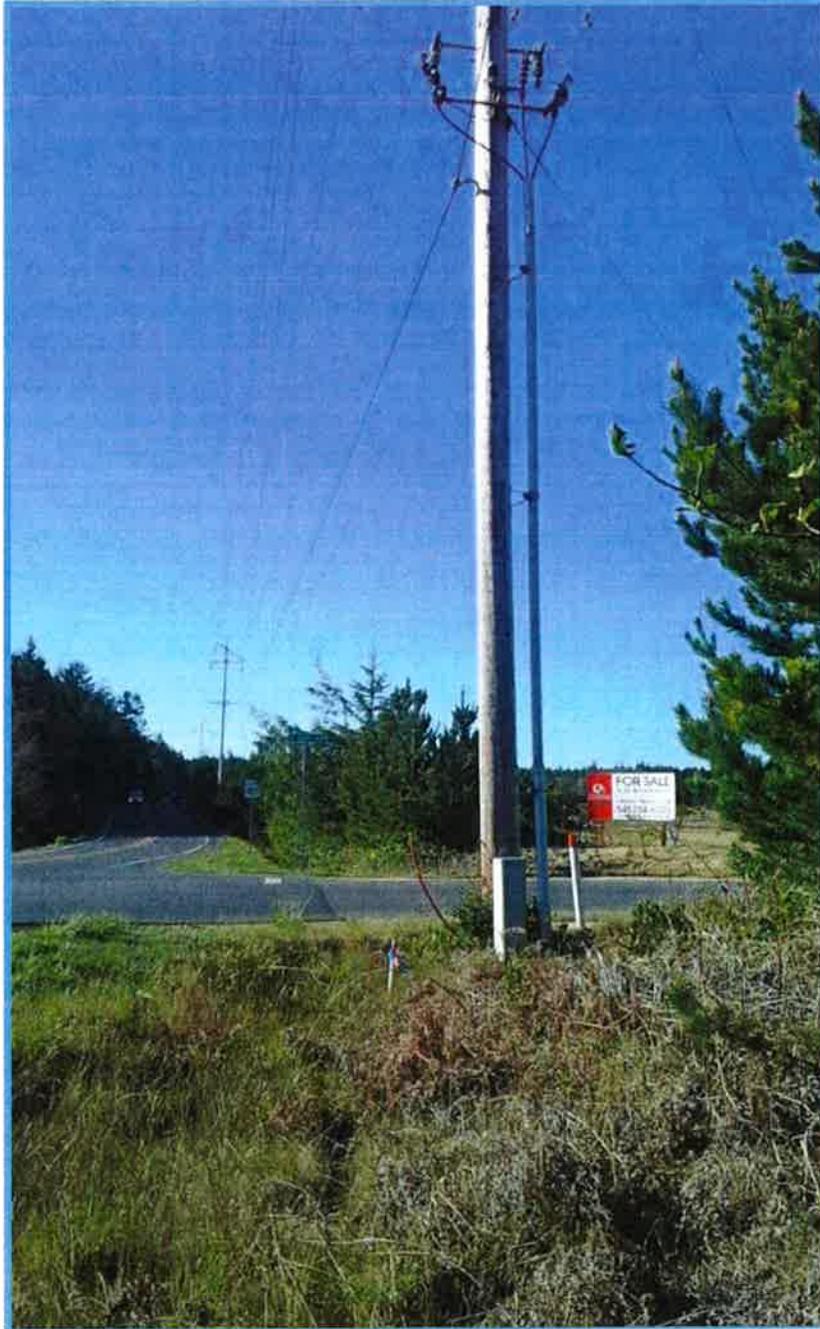


Image 3.1.2 Three Phase Power Running Along East Edge of Site

3.2 Transportation

The Oregon Department of Transportation (ODOT) recently published a 2015 updated map of the functional classifications of roads in and around Waldport. The Industrial Park area is shown in Figure 3.2, below.

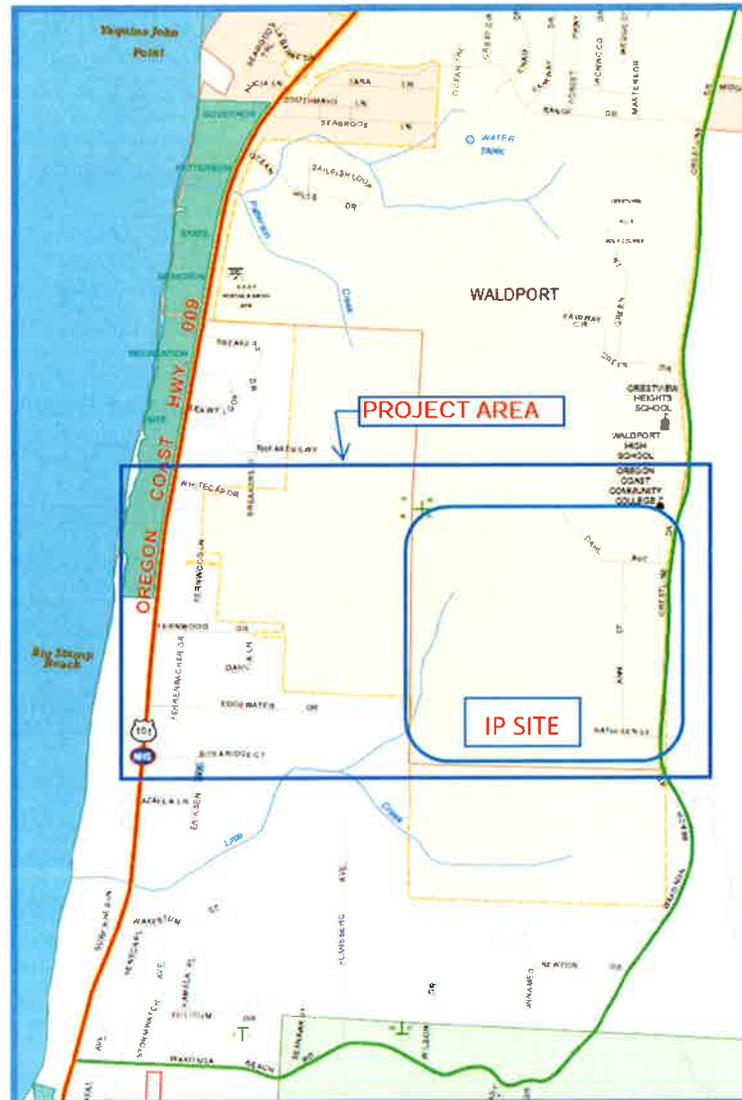


Figure 3.2 ODOT Federal Functional Classification of Roads (2015)

U.S. Highway 101 (Pacific Coast Highway), to the west of the Industrial Park area, is designated as a Principal Arterial, and is under the jurisdiction of the Oregon Department of Transportation (ODOT).

Within Waldport there are three designated collector streets; Crestline Drive, Range Drive and Cedar Street.

Crestline Drive, just to the east of the Industrial Park, is currently the primary major collector street accessing residential, public and industrial uses in the upland area. Crestline Drive is a north-south

oriented street from Highway 34 south to the city limits. South of Waldport, Crestline Drive becomes Wakonda Beach Road which connects to Highway 101. South of Salmon Street, Crestline Drive is a Lincoln County maintained road consisting of two 12' travel lanes and 5' shoulder bicycle lanes.

Range Drive is an east-west oriented street in the south part of Waldport that provides a major street connection between Highway 101 and Crestline Drive. Though designated as a collector street, Range Drive is currently not built to City or County standards and is in need for an upgrade.

The City of Waldport, organized as Lincoln County Road District #3, has the responsibility for maintenance and construction of streets within the City limits which are dedicated for public use and which are constructed to City standards.

3.2.1 Industrial Park Site Access

Currently, Range Drive, Wakonda Beach Drive and Crestline Drive provide access to the limited commercial and industrial development in the project area. In addition, Waldport High School and Crestview Heights School combine their students' transportation needs with 9 buses that run through this area in the morning and the afternoon.

A preliminary traffic volume study was performed by CWE on March 30th and 31st, 2016 during the morning peak hours (7:00 am to 9:00 am) and evening rush hours (3:45pm to 5:45pm). The study found that in the morning, only 13% of the buses used the Wakonda Beach intersection, while 38% used Range Drive and 50% ran along Crestline from the school and back. In the afternoon, it was split evenly with 1/3 using Wakonda Beach, 1/3 using Range and a third running only along Crestline. For the Master Planning effort, we will assume that all 9 buses use the new collector road for the most conservative approach.

Truck traffic was minimal during the traffic study, with only 3 trucks using the Wakonda Beach intersection and 3 using Range Drive in the morning, while the afternoon hours found only 3 trucks in total, all using the Wakonda Beach Drive intersection.

Car traffic counts found that of all of the traffic running along Highway 101, in the morning peak hours, 37% (156) of all passenger cars used either Wakonda Beach or Range Drive intersections while only 13% (174) used one of the intersections in the afternoon. The Master Plan will offer more details on this study.

3.2.2 Local Roads in Industrial Park Site

The roads in the Industrial Park are currently considered as Local Roads. The Industrial Park site has 3,065 lineal feet of local roads running through the area. These recently constructed streets are strip paved (no curb and gutter), striped asphalt concrete roads approximately 30 feet wide.

Dahl Avenue intersects Crestline Drive at the NE portion of the site, running 951 lineal feet generally to the west, ending at the Dahl Transfer Station. Kathleen Street also intersects Crestline Drive, at the SE boundary of the site, running 381 lineal feet to the intersection with Anne Street. Anne Street connects Dahl and Kathleen Streets, traveling 1,733 lineal feet in a north-south orientation. See Figure 4.1 for the Local Road layout.

3.3 Water

The City of Waldport and SWLCD have been working together for the past several decades to serve the areas to the south of the main town of Waldport. The City of Waldport water system serves the majority of the Waldport city limits, however a large portion of the south/southwest part of the city is under the jurisdiction of the Southwest Lincoln County Water District (SWLCWD). Currently, domestic water service to several lots on the project site is provided by SWLCWD. The closest portion of the City's water

infrastructure is located at Crestview Middle School, where an 8" water main serves fire protection water service for the campus.

3.3.1 City of Waldport

General System Description

The natural drainage courses of North and South Weist Creeks and Eckman Creek constitute the primary surface water around the study area. Presently, the City removes raw water from both the Weist and Eckman Creeks. The City holds a water right on Southworth Creek, though it is not currently utilized as an active water source.

The City has been granted 6.73 CFS (4.34 MGD) of water rights. Operational treatment capacity of the water plant filters limits production to 0.504 MGD. With filter upgrades, the plant may produce 0.8 MGD. The City currently has ample year-round raw water for its needs. While the available raw water can be significantly less in the summer months due to low stream flows in the dry season, the City uses the Eckman Creek source to supplement the system during this time period.

Based on previous studies, the City is projected to need only a limited increase of water over the next 20 years, based on a 1% growth rate in additional services. Based on a three-year average from 2008 to 2010, the City withdraws for use about 0.260 mgd on an average annual day, with a peak day demand of about 0.649 mgd. By 2031, the average daily demand is projected to increase 0.06 mgd to 0.321 mgd total and the peak day demand is projected to increase by 0.153 mgd to 0.802 mgd total. These projections appear to be consistent with city planning data for increases in population and employment as well as second homes.

The City of Waldport has adopted a Water Master Plan (2002), which has been incorporated into the Waldport Comprehensive Plan. In addition, a Water Management and Conservation Plan (WMCP) was updated in 2012. An extension application to the Water Resources Department has been made to increase the authorize diversion from its current rate of 0.649 million gallons per day (MGD) to a 20-year rate of 0.802 MGD.

Summary of Existing Sources

Historically, the city of Waldport has relied on surface water from tributary streams to the Alsea River to supply raw water to the municipal water system. It is generally maintained that due to the area's underlying geology, which primarily consists of Tertiary age basalt, groundwater in sufficient quantities is not available and the City does not own or operate any wells at this time (WMCP, 2012).

Service Area

As of June 2011, the City of Waldport provided drinking water to about 1,282 customers. Inside city limits, there were 1,063 customers, whereas outside city limit customers numbered 219. The total service area is estimated to be 2.1 square miles. A map of the City's water service area is shown in Figure 3.3.

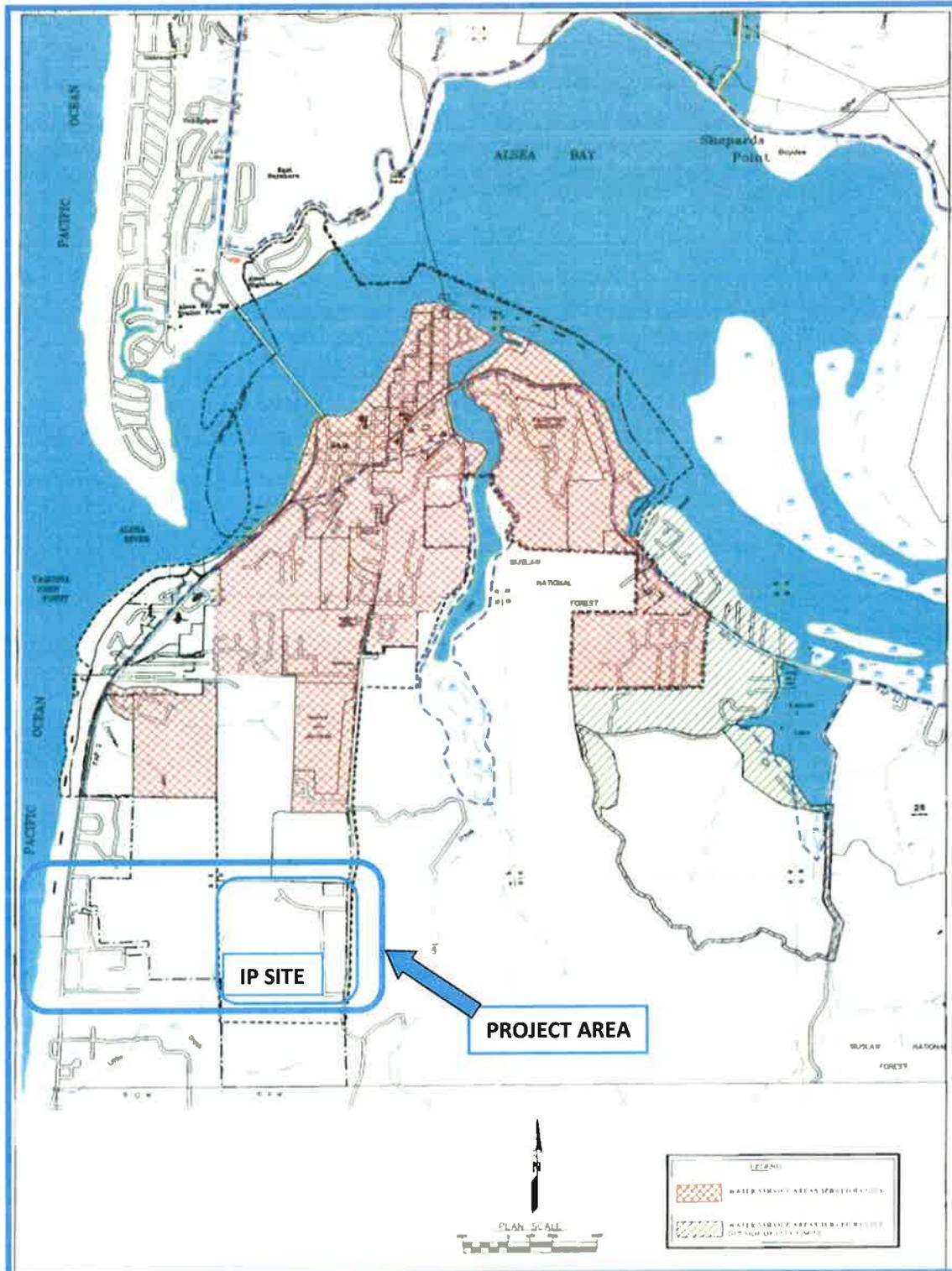


Figure 3.3 City of Waldport Water Service Area

3.3.2 (SWLCWD)

General System Description

Information about the Southwest Lincoln County Water District (SWLCWD) has been obtained from the *Southwest Lincoln County Water District Water Management and Conservation Plan*, Adopted April 2014. SWLCWD is a municipal Water District located within a ½-mile to 1-mile wide by 8-mile long strip of land between the City of Waldport on the North and the City of Yachats on the South along Highway 101.

The Water District has four raw water sources that supply water to two water treatment plants, the Blodgett Water Treatment Facility and the Dicks Fork Treatment Facility plant. Pumps are used to deliver the water from the treatment plants to the receiving reservoirs.

The Blodgett Water Treatment Facility has a current rated capacity of 350 gpm and can be operated periodically at 450 gpm during the summer months. SWLCWD has plans to expand this plant to a rated capacity of 700 gpm in the future, when demand warrants it. After treatment, the water is pumped to the 1,000,000 gallon Blodgett reservoir, near the treatment plant, which is at elevation 185 feet.

The Dicks Fork source is at elevation 434 feet. Water from this source flows to a settling basin at elevation 372 feet and then flows to the Dicks Fork Treatment Facility at elevation 310 feet (near the Dicks Fork reservoir). The Dicks Fork Treatment Facility plant has a capacity of 200 gpm. After treatment, the water is pumped to the 200,000 gallon Dicks Fork reservoir at elevation 330 feet.

As of 2014, Big Creek, Starr Creek, and Vingie Creek provide water to approximately 90% of the District's customers. Dicks Fork serves the remaining 10%.

Summary of Existing Sources

The Water District currently takes water from four separate surface water sources located on Big Creek, Starr Creek, Vingie Creek and Dicks Fork. Each source is the culmination of surface waters within separate watersheds. The Water District has permits or certificates to divert water from four creeks totaling 2.30 cfs (1.94 MGD), of which 0.4 cfs cannot be diverted in the month of July. Operational constraints limit normal production treated water capacity to between 0.79 and 0.87 MGD.

Service Area

Southwest Lincoln County Water District currently has 1,250 active water services ranging in size from 3/4-inch to 6-inch. This represents an estimated permanent population of 2,250 people. The population figures rise to approximately 6,000 people at times during the summer months. Except for parts of the Water District within the city limits of Waldport, the entire Water District is zoned as residential use.

3.4 Wastewater

The City of Waldport has adopted a Wastewater Collection System Master Plan (May 2000) which has been incorporated into the Waldport Comprehensive Plan. The Wastewater Master Plan evaluates the existing system, identifies current deficiencies, estimates current and projected flows, and recommends improvements.

3.4.1 General System Description

The original wastewater system in Waldport was constructed in 1951 in the lower elevations of the city, and in the commercial district and older residential areas of the City. Extensions to the original conveyance

system have been constructed over time. City sewer services were provided to Yaquina John Point in 1992 and to the Ocean Hills Subdivision in 1993. A new treatment facility was constructed in 1993. The Waldport wastewater conveyance system consists of over 51,000 lineal feet of mainline gravity pipe and over 16,000 lineal feet of pressure piping. Several upgrades to the treatment facility and conveyance system have occurred. In the mid-2000s the South Waldport Sewer Improvement project improved existing pump stations and force mains, and increased the hydraulic capacity of the existing sewer conveyance system to accommodate future growth within the city and potential service expansion outside the city limits.

3.4.2 Service Area

The City wastewater system serves the majority of the city. Those areas within the city currently not served by the wastewater system include the area east of Lint Slough, the industrial park area located at the south end of the city, the Alsea Highlands and Hotel developments located north of the Highway 101 bridge and Yaquina John Point. In 2007 a wastewater line was constructed under Lint Slough to serve the McKinley Marina RV Park.

3.4.3 Industrial Park Area

The City wastewater system currently does not serve the industrial park area. The closest portion of the Sewer system is currently located near the intersection of Green and Crestline Drives, part of Sub-Basin F. See Section 6.2 for more details. The Industrial Park Master Plan will update information on the waste water system infrastructure, capacity and recommended upgrades to accommodate the projected project flows.

3.5 Storm Sewer

A Storm Water Master Plan was completed for the City in 1999. The Master Plan provides guidance for implementing storm water infrastructure improvements throughout the city. The Master Plan addresses storm water facilities and needs in the lowland areas of Waldport, i.e. downtown, Old Town, and the Starr Street area. The following information about the Waldport storm water system is summarized from the December 1999 Storm Water Master Plan.

“Waldport’s lowland area is relatively flat and provides limited natural drainage. Consequently, storm drainage facilities are needed to transfer storm water from Waldport’s lowland area to Alsea Bay. Existing storm drainage facilities consist of a piped network, catch basins, small ditches, and pump stations.”

The Storm Water Master Plan identifies deficiencies and recommendations for new facilities including storm drain lines, new ditchlines, catch basins, manholes, and pump stations. The City system does not currently serve the Industrial Park Area. See Section 6.3 for more details. The Industrial Park Master Plan will update information on the storm sewer water recommendations to accommodate the projected project flows.

3.6 Solid Waste

Solid Waste disposal is provided in the Waldport area by Dahl Disposal on a franchise basis. This is a permitted solid waste recycling and transfer station (South Lincoln Recycling and Transfer Station, ODEQ Permit #439) in the north-central portion of the project area.

There is also an historical unpermitted landfill just east and across Dahl Avenue from the transfer station. It is our understanding that this landfill was closed approximately 25 to 30 years ago and capped. We

further understand it is currently under an existing agreement with the Oregon Department of Environmental Quality (ODEQ) for closure, has been monitored for a number of years, and is a few years out of achieving the 30-year monitoring period requirement.

3.7 Power

Consumers Power and Central Lincoln Public Utility District (PUD) provide electrical service to Lincoln County including Waldport. A privately owned non-profit rural electric cooperative, Consumers Power has approximately 16,000 members in six counties. Central Lincoln PUD is the largest PUD in Oregon, with over 30,000 residential customers and over 5,000 commercial customers. Powerlines are generally above ground suspended between wooden single poles fixed with cross arm and post insulators.

Currently, there is 3 phase power running down the west side of Crestline Drive that serves the existing lots in this area and can be tied into for future needs.

3.8 Telecommunications

Pioneer Telephone Cooperative provides telephone service to southern Lincoln County. Underground telephone lines are generally located in or near highway right-of-way. Most telephone lines are above ground and suspended between single poles maintained by the cooperative or electric utility. DSL service is available for internet connections from these phone companies via Peak Telecom.

Pioneer Telephone Company currently occupies 2 lots (72 & 73) in the Industrial Park area and can adequately serve the site.

3.9 Biological Conditions

A review of potential environmental issues related to the proposed Waldport Industrial Park Project has been conducted. The extent of this preliminary review was to make a visual assessment of the existing property and environmental requirements related to development within the project area.

3.9.1 Wetlands

The major water resource in the Waldport planning area is Alsea Bay. The bay includes important habitat for fish, wildlife and marine species as well as extensive areas of tidal wetlands. The City of Waldport completed a Local Wetlands Inventory in 1999 that identifies significant riparian resources and wetlands. The Waldport Development Code includes a Significant Natural Resources Overlay Zone that provides protection of identified significant natural resources.

There are some areas on the site that may be considered jurisdictional wetlands and should be delineated before further design of improvements. Any fill or removal in jurisdictional wetlands is regulated by the US Army Corps of Engineers (USACE) under Section 404 of the Federal Clean Water Act, by the Oregon Department of State Lands (ODSL) under the state Removal-Fill Law and by local government under local land use law.

3.9.2 Riparian Conditions

Most of the area is covered with spruce, hemlock, and Douglas fir trees. Along the coast there are stands of small pines. The only open areas are located along rivers, along the coast, and in areas that have been logged. Undergrowth consisting of salal, coast huckleberry, wax myrtle, and rhododendron is common.

The topography of the land on the site causes surface runoff to drain toward the west and empty into

tributaries to Little Creek and Patterson Creek. Subsurface drainage is restricted because the geology of the area consists of relatively impermeable sedimentary rock and the soil has a clay base.

3.10 Hydrology

Lincoln County is situated on the west slope of the Coast Range and, consequently, all rivers in the county drain westward toward the Pacific Ocean. In Waldport, the Alsea river has its headwaters near the crest of the Coast Range and drains towards the Pacific Ocean, emptying into shallow estuaries. Because Waldport is located near the steep slopes of the Coast Range, development has centered along the flat coastal plain and along the rivers and estuaries.

3.10.1 Climate

The climate of Waldport is indicative of Lincoln County, which is greatly influenced by the Pacific Ocean. The coastal marine climate is characterized by moderate temperatures and high amounts of precipitation that usually occur between October and May. The mean maximum temperature varies from 66°F along the coast to 80°F at higher elevations. The mean minimum temperature varies from 48°F along the coast to 44°F at higher elevations. Most precipitation comes from winter storms, some lasting several days. The average annual rainfall varies from 60 to 100 inches.

3.10.2 Flooding

With over 60 miles of ocean shore and several major rivers, extensive areas of Lincoln County, including Waldport, are subject periodic flooding. Lincoln County participates in the National Flood Insurance Program (NFIP), which makes flood insurance available to all property owners in the county. To maintain eligibility for the NFIP, Lincoln County has adopted and enforces special building and development restrictions for lands that are subject to flooding.

Lands that are subject to special flood hazard area regulations have been mapped based on the so-called "100-year" flood, which is a flooding event that has a 1% probability of occurring in any year.

It is important to note that flood events only slightly lower in magnitude than the 100-year flood will occur with much greater frequency, and are often nearly as damaging as the 100-year base flood.

For example, in just the past decade, Lincoln County has experienced three flood events that resulted in widespread damage to private homes and property, but all three of these floods were of lesser magnitude than the 100-year base flood.

The City of Waldport currently utilizes the FEMA Flood Insurance Rate Map (FIRM) effective December 18, 2009, as shown in Figure 3.4.

Flooding in Waldport usually occurs during the winter months (from October to April). Lincoln County is a coastal county with both riverine and coastal flooding sources. Riverine flooding typically results in Lincoln County when snow accumulates in the upper reaches of watersheds. When a warm southwest storm occurs in the region, the heavy rainfall, when combined with an increase in snowmelt, causes riverine flooding. The storms that produce coastal flooding often bring heavy rain, causing high flows in rivers. At estuaries and at the mouths of rivers, these flows are held back by high ocean levels, causing increased flood hazards.

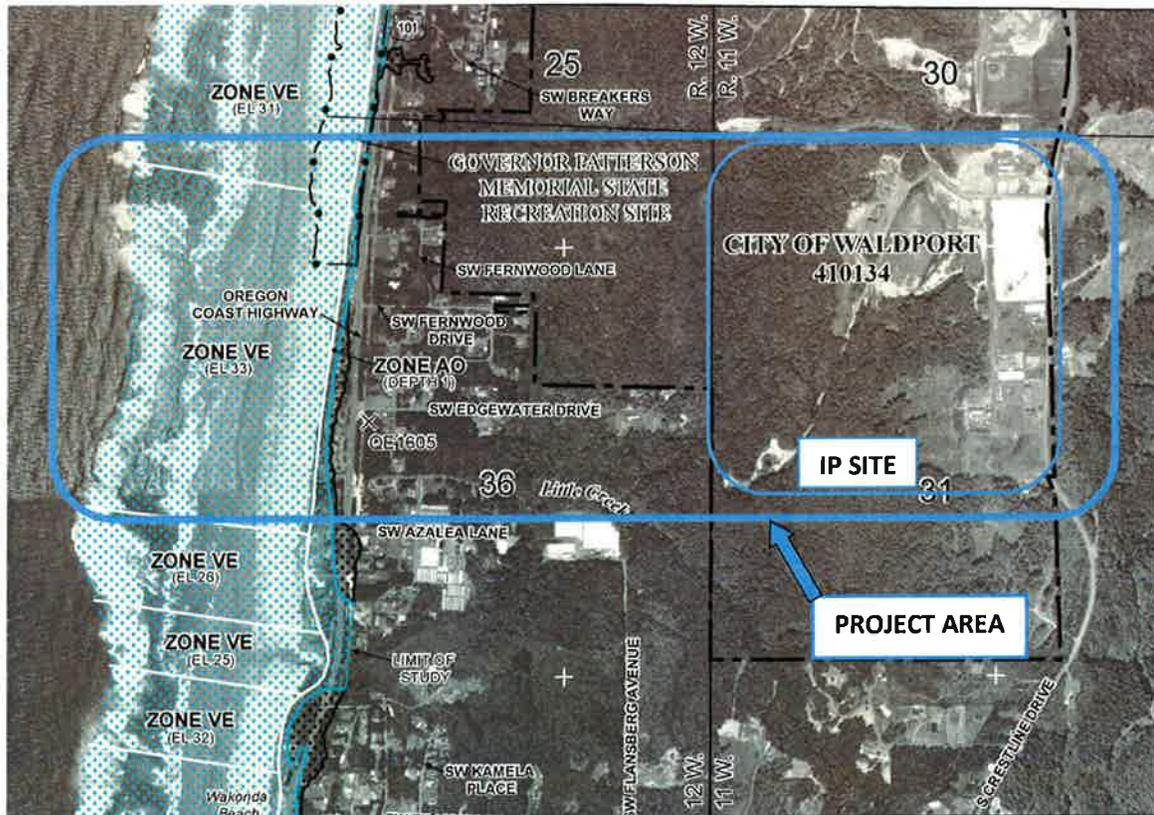


Figure 3.4 FEMA Flood Insurance Rate Map (FIRM) effective December 18, 2009

On the Alsea River, the maximum recorded flood occurred on December 22, 1964. Other significant flooding events occurred in December 1955, November 1960, January of 1972 and 1974, December 1980, February 1996, and December 1998.

The Industrial Park site is entirely outside of the flood zone, as shown on Figure 3.4, above.

3.10.3 Significant Events

Along the coast, high spring tides combine with storm surges produced by strong winds from winter storms, causing extensive coastal flooding. One of the most significant ocean floods in Oregon history occurred on January 3, 1939, when wind-driven waves caused extensive damage. In February and December 1967 Lincoln City was battered by unusually destructive storm waves. The waves were generated by the cumulative effect of prolonged southwesterly winds and high stillwater levels exceeding seven feet. In 1964, a tsunami caused considerable damage to several communities along the Oregon coast. Other years of significant open-coast flooding were 1952, 1960, 1964, and 1973. Along the coast, there are areas designated as sheet flow caused by wave action from coastal flooding.

Previous analyses of extreme waves for the Oregon coast estimated the "100-year" (1%) storm wave to be around 34 feet, as shown in Table 3.2.

<u>Flooding Source and Location</u>	Peak Elevation (feet NAVD 88)			
	<u>10-Percent-Annual-Chance</u>	<u>2-Percent-Annual-Chance</u>	<u>1-Percent-Annual-Chance</u>	<u>0.2-Percent-Annual-Chance</u>
Pacific Ocean				
City of Waldport				
From the southern-most point of Alsea Bay Drive to Oregon Coast Highway 101	13.0	14.0	14.4	14.9
From 400ft S to 800ft S of Seaview Drive	25.6	27.4	28.6	31.1
From NW Westward Ho Drive to 400ft S of Seaview Drive	27.4	30.0	31.1	33.7
From NW Clipper Street to NW Westward Ho Drive	28.3	31.1	32.2	35.2
From 160ft N of NW Corvette Street to NW Clipper Street	29.6	32.9	34.2	37.0
From 180ft S of NW Oceania Place to 160ft N of NW Corvette Street	27.7	30.2	31.1	32.9
From the northern end of Hidden Lake Loop to 180ft S of NW Oceania Place	27.4	29.4	30.3	31.9
From 810ft S of NW Sarkisian Drive to the northern end of Hidden Lake Loop	30.6	33.4	34.6	36.4

Table 3.2 FEMA Flood Zone Study (2009)

However, in response to a series of large wave events that occurred during the latter half of the 1990s, the wave climate was subsequently re-examined in a Regional Risk Assessment (2015) conducted by the Oregon Department of Land Conservation and Development's Natural Hazards department. As such, an updated projection of the 1% storm wave height was determined, which is now estimated to reach approximately 52 feet (based on the NDBC buoy #46002* -Oregon). Each wave height is expected to occur on average once during the recurrence interval, per Table 3.3.

Figure 3.5 shows the Special Flood Hazard Area (SFHA) in Waldport and general location of NFIP policies.

Recurrence Interval (years)	Extreme Wave Heights (feet)	
	NDBC buoy #46002* (Oregon)	NDBC buoy #46005* (Washington)
10	42.5	41.7
25	46.2	44.0
50	48.8	-
75	50.1	45.7
100	51.2	47.1

Table 3.3 Projection of Extreme Wave Heights (2010)

[Source: *DOGAMI analyses; + Ruggiero et al. (2010)]

The entire coastal zone is highly vulnerable to tsunami impact. Distant tsunamis caused by earthquakes

on the Pacific Rim strike the Oregon coast frequently but most are barely noticed and only a few of them have caused significant damage or loss of life.

Local tsunamis caused by earthquakes on the Cascadia Subduction Zone (CSZ) happen rarely, but may cause catastrophic damage and, without effective mitigation actions, great loss of life. A local tsunami generated by a CSZ earthquake, would take about 15-20 minutes to reach most of the coast and will break up into a series of waves that will continue to strike the coast for a day or more, with the most destructive waves arriving in the first 4-5 hours after the local earthquake.

Most locally-generated tsunamis will be higher and travel farther inland (overland and up river) than distant tsunamis. Figure 3.6 depicts a zoomed in look at the Local Source (Cascadia Subduction Zone) Tsunami Inundation Map for Waldport, Oregon. Attachment A shows the Figure in full, with legend. This tsunami inundation map displays the output of computer models representing five selected tsunami scenarios (S, M, L, XL, XXL), all of which include the earthquake-produced subsidence and the tsunami-amplifying effects of the splay fault.

All 4 Access Road options will run through the L, XL and/or XXL events. However, the Industrial Park area site is well above the inundation zone.

In April 2008 the USGS wrote that for the next 30 years there is a 10% probability of a magnitude 8 to 9 quake somewhere along the 750-mile-long Cascadia Subduction Zone. The 100-foot elevation contour has been highlighted in this study due to a potential local tsunami generated by a CSZ earthquake. In addition, planning efforts must take a multi-hazard approach towards design that accounts for the potential impacts of seismic forces as well as all the major hazards to which the industrial area is vulnerable to.

3.11 Historic Sites

The historic heritage of the Waldport area is reflected in many of the names of local cultural and geographic features. There are a number of historic sites and buildings in the Waldport vicinity related to the history of the south county area, but according to the Oregon National Register no historic registered properties are located within the Waldport planning area.

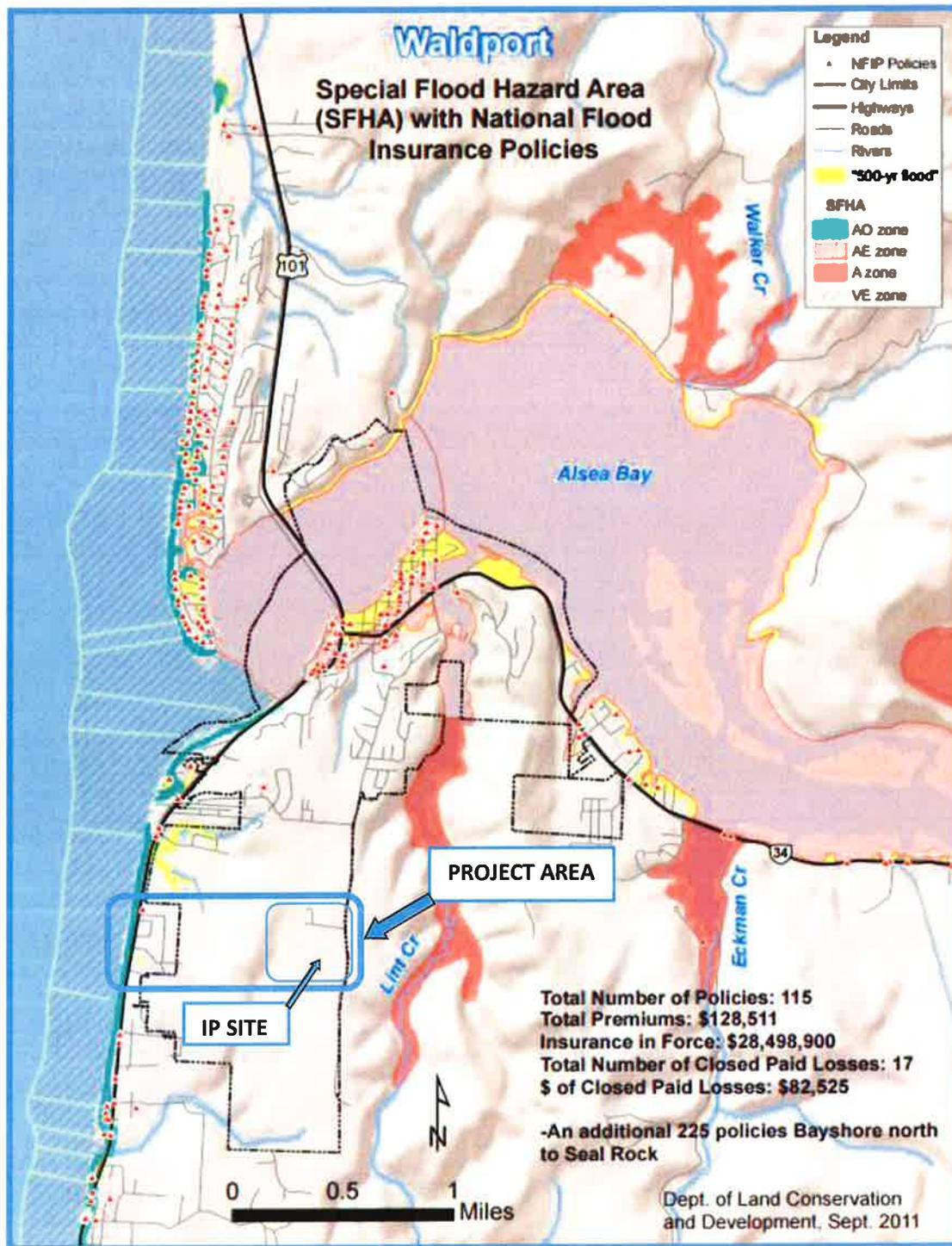


Figure 3.5 Special Flood Hazard Area – Waldport (September 2011)

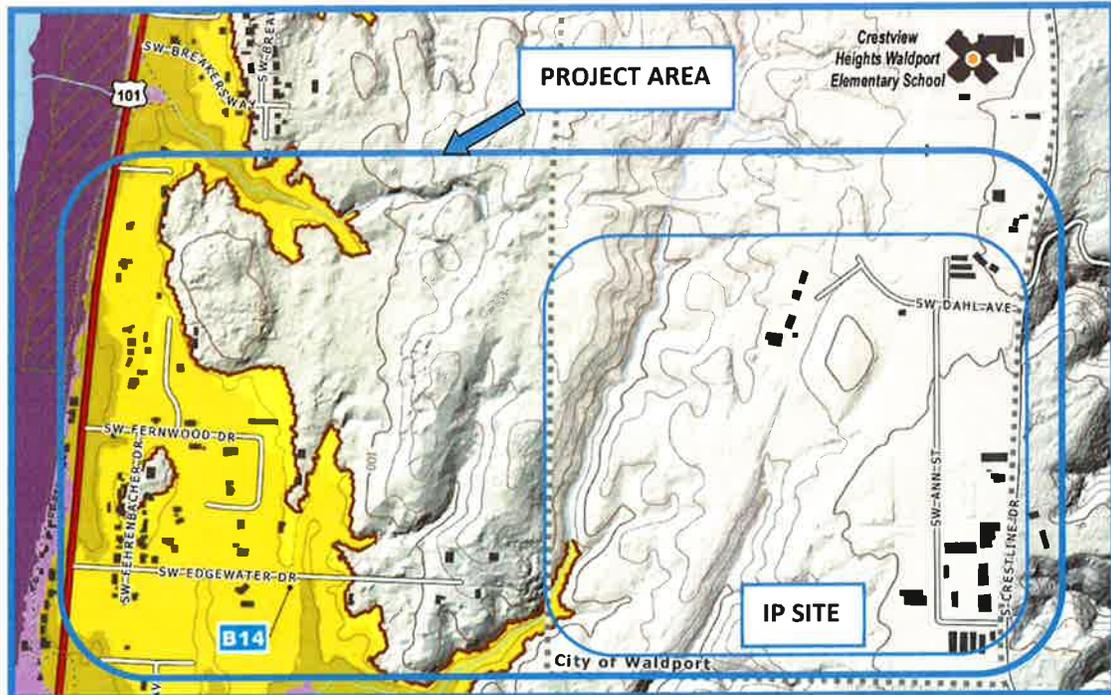


Figure 3.6 CSZ Tsunami Inundation Map for Industrial Park Area (2013)

4.0 Lot and Building Layout

The Industrial Park been laid out with a total of 76 lots. Figure 4.1 and 4.2 shows the full lot layout and Table 5.1 in Attachment B offers information on the current property owners, lot size, existing building and proposed building areas. This study assumes ultimate, full build-out capacity of the land within the foreseeable future, not necessarily limited by the 25-year planning period.

Table 4.1 outlines the approximate total Gross and Net acreages of the Industrial Site. The total ROW of 18.44 acres includes both the existing and proposed ROW areas. The 31.58 acres of undevelopable land includes Lot 6 (21.42 acres allocated for open space), Lot 16 (8.45 acres for existing landfill) and Lot 20 (1.71 acres allocated for storm water management). Thus, the net acres of developable land are 111.35 acres. The proposed building size was calculated for the full build-out scenario, using a building coverage of 50% of the lot size.

Total Gross Land (acres)	Total ROW (acres)	Total Undevelopable Land (acres)	Net Developable Land (acres)	Proposed Building Size (acres)	Proposed Building Size (ft ²)
161.37	18.44	31.58	111.35	54.96	2,394,058

Table 4.1 Acreage Details

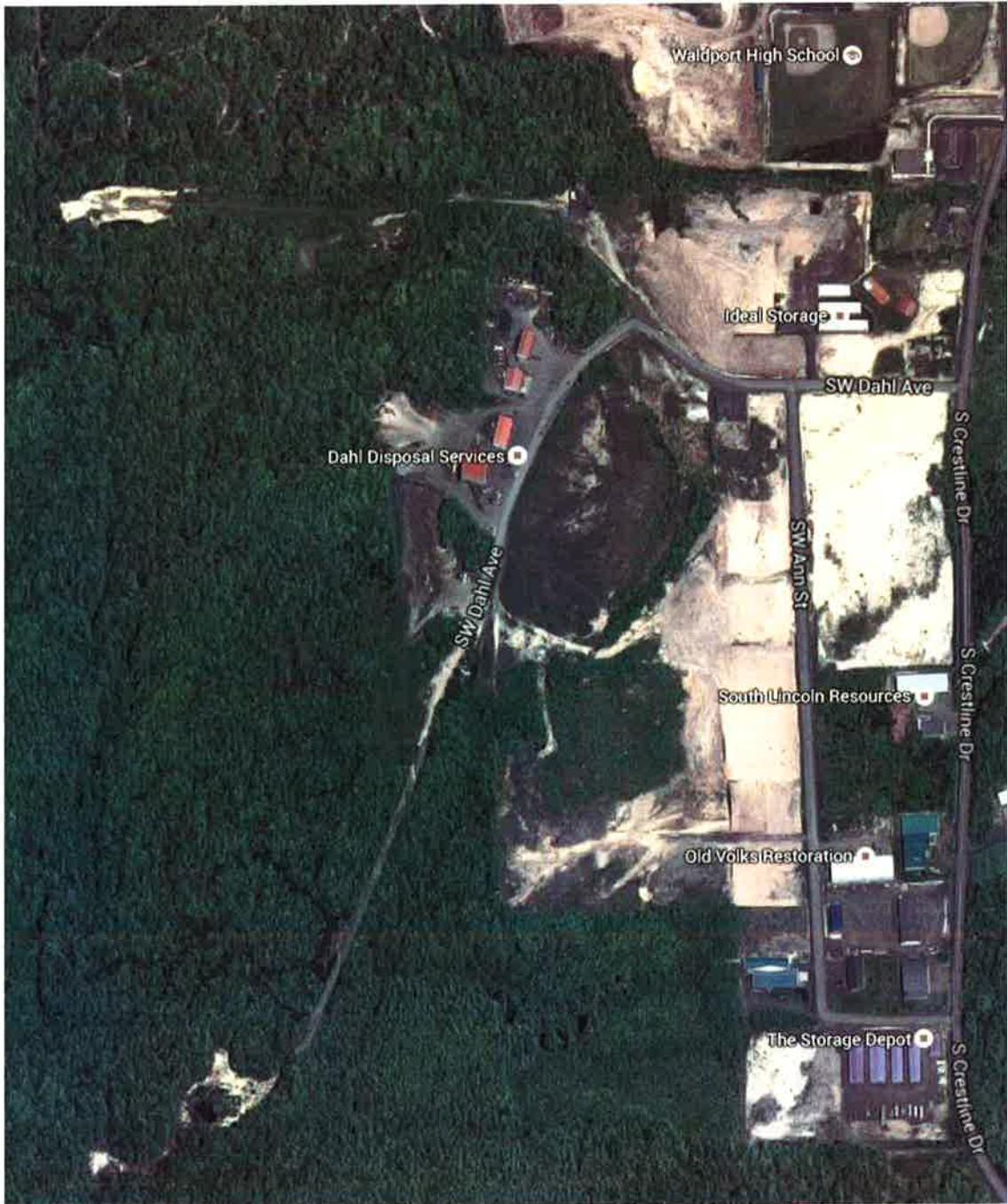
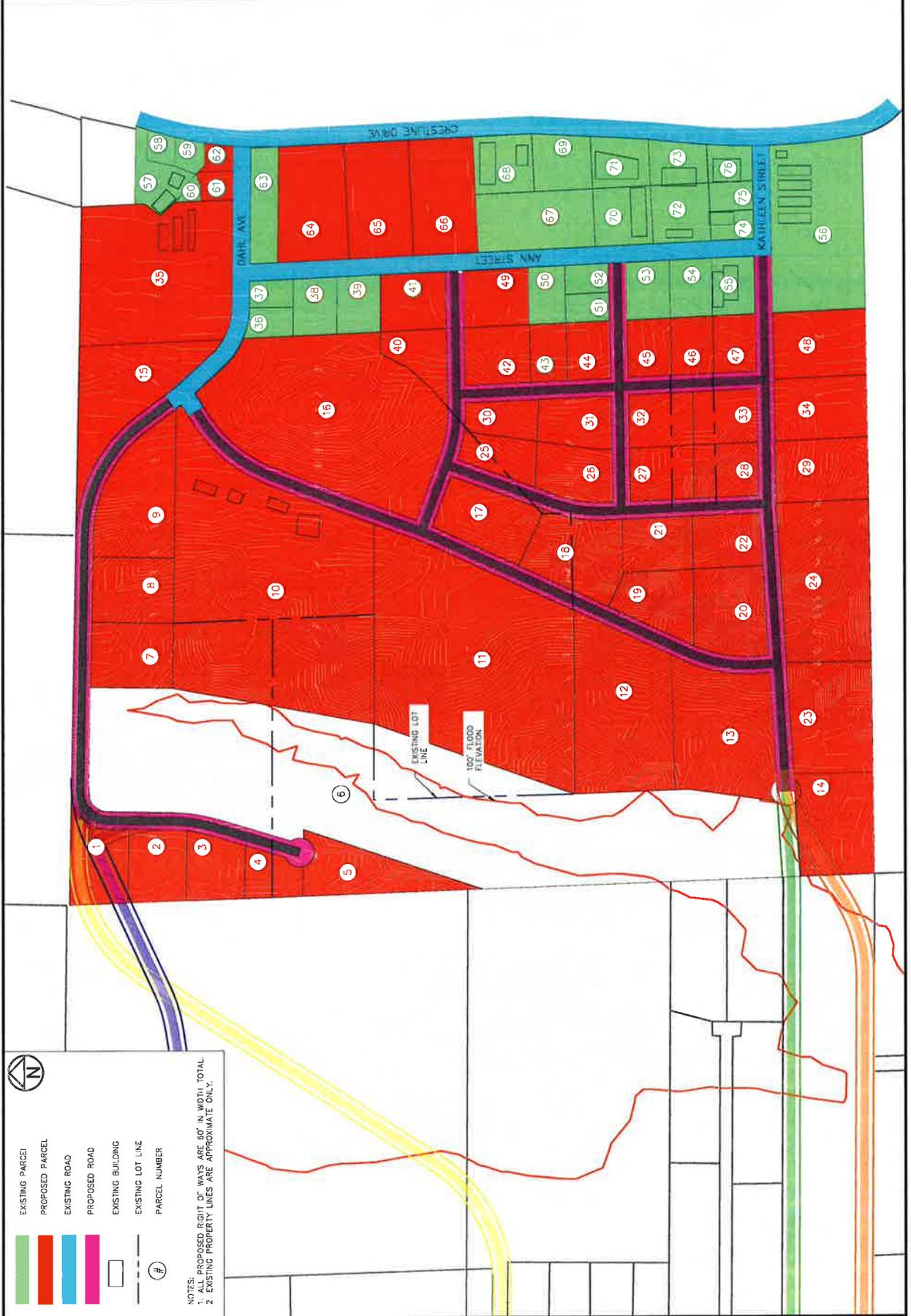


Figure 4.1 Industrial Park Site Aerial Photo



LEGEND

- EXISTING PARCEL
- PROPOSED PARCEL
- EXISTING ROAD
- PROPOSED ROAD
- EXISTING BUILDING
- EXISTING LOT LINE
- PARCEL NUMBER

NOTES:
1. ALL PROPOSED RIGHT OF WAYS ARE 30' IN WIDTH. TOTAL
2. EXISTING PROPERTY LINES ARE APPROXIMATE ONLY.

5.0 Transportation Alternatives Evaluation

This Feasibility Study has researched and analyzed available State, County and City of Waldport guidelines and regulations and provides an overview of the parameters that will be further detailed in the Master Planning effort.

Four alternative collector access roads will be evaluated in this study, as shown on Figure 5.2. Alternatives were screened against the following considerations: 1) ability to meet the project objectives, 2) technical feasibility, and 3) cost. Additionally, other factors such as environmental permitting and public support were assessed. In addition, Crestline Drive/Wakonda Beach Road will be assessed for continued use for site access.

The lead agency for transportation project review in Waldport shall be:

- a. The City of Waldport for projects within the city limits (i.e. local roads on project site);
- b. The City of Waldport and Lincoln County for projects within the city limits but outside the UGB on projects involving county-owned facilities (i.e. Access Road Options 1 and 2);
- c. Lincoln County, in close conjunction with the City of Waldport, for projects outside of the UGB and the City limits (i.e. Access Road Options 3 and 4); and
- d. The State of Oregon, the City of Waldport and Lincoln County on projects involving state owned facilities (i.e. Highway 101 ROW interface).

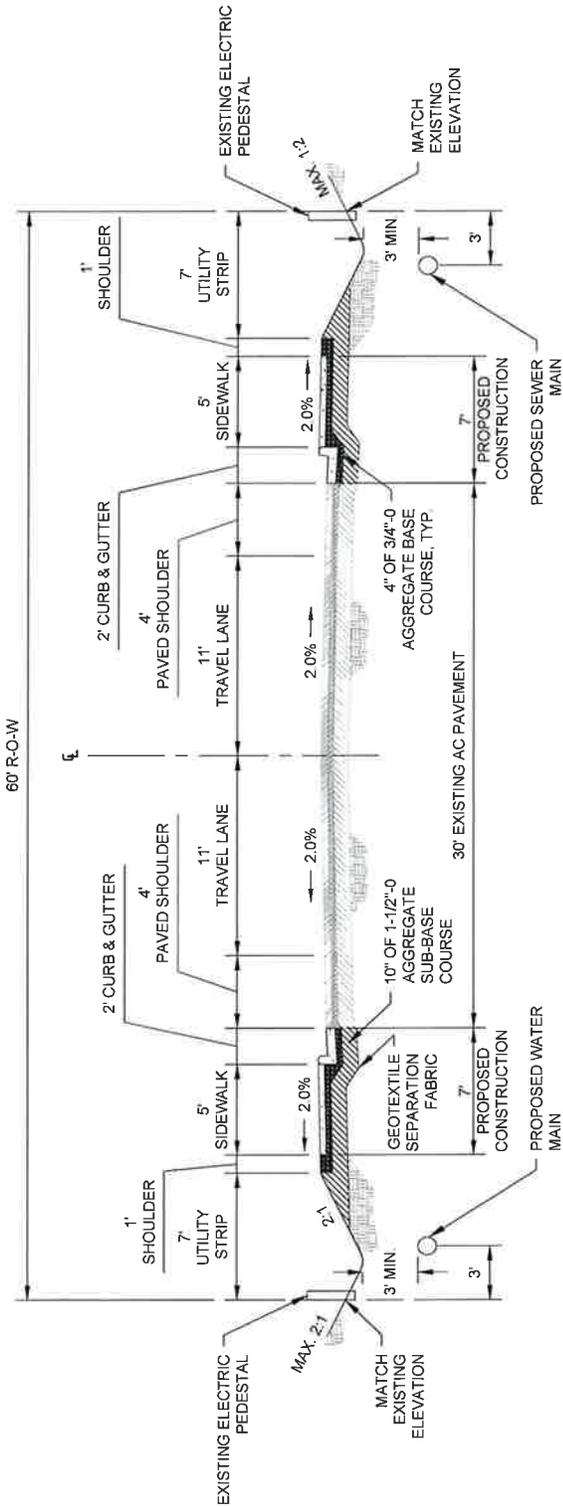
5.1 Local Roads

Local street design is regulated by the 1999/2009 City TSP, the 2009 Updated Comprehensive Plan and the City Development Code. The Industrial Park site currently has 3,065 lineal feet of local roads running through the area; Dahl Avenue, Anne Street and Kathleen Street, as shown on Figure 5.1 and Images 5.1.1 through 5.1.6. These recently constructed streets are strip paved, unstriped asphalt concrete roads approximately 30 feet wide.

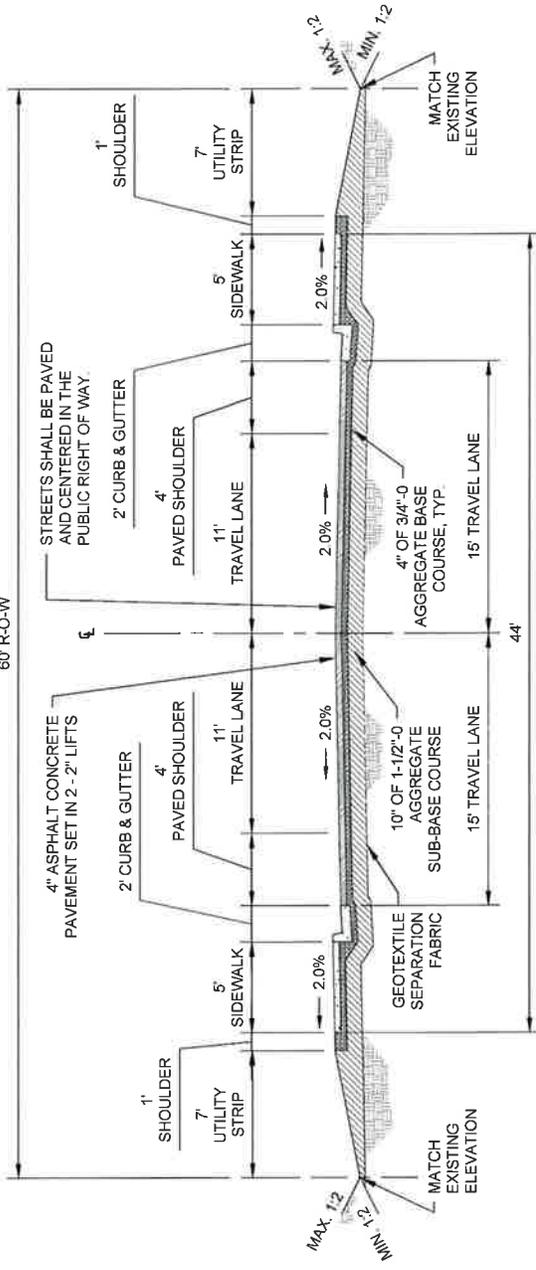
Roughly 10,300 lineal feet of new roads will serve the remaining areas of the Industrial Park, for a total of 13,300 lineal feet for the new and improved road network.



Image 5.1.1 Dahl Avenue



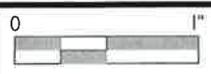
TYPICAL EXISTING ROAD MODIFICATION
1" = 10'



TYPICAL NEW LOCAL ROAD CROSS SECTION
1" = 10'



DRAWN BY: KR
DATE: 5/6/2016



INDUSTRIAL PARK

FIGURE

ROAD CROSS SECTION DETAILS

CITY OF WALDPOR
LINCOLN COUNTY, OREGON

5.1.1

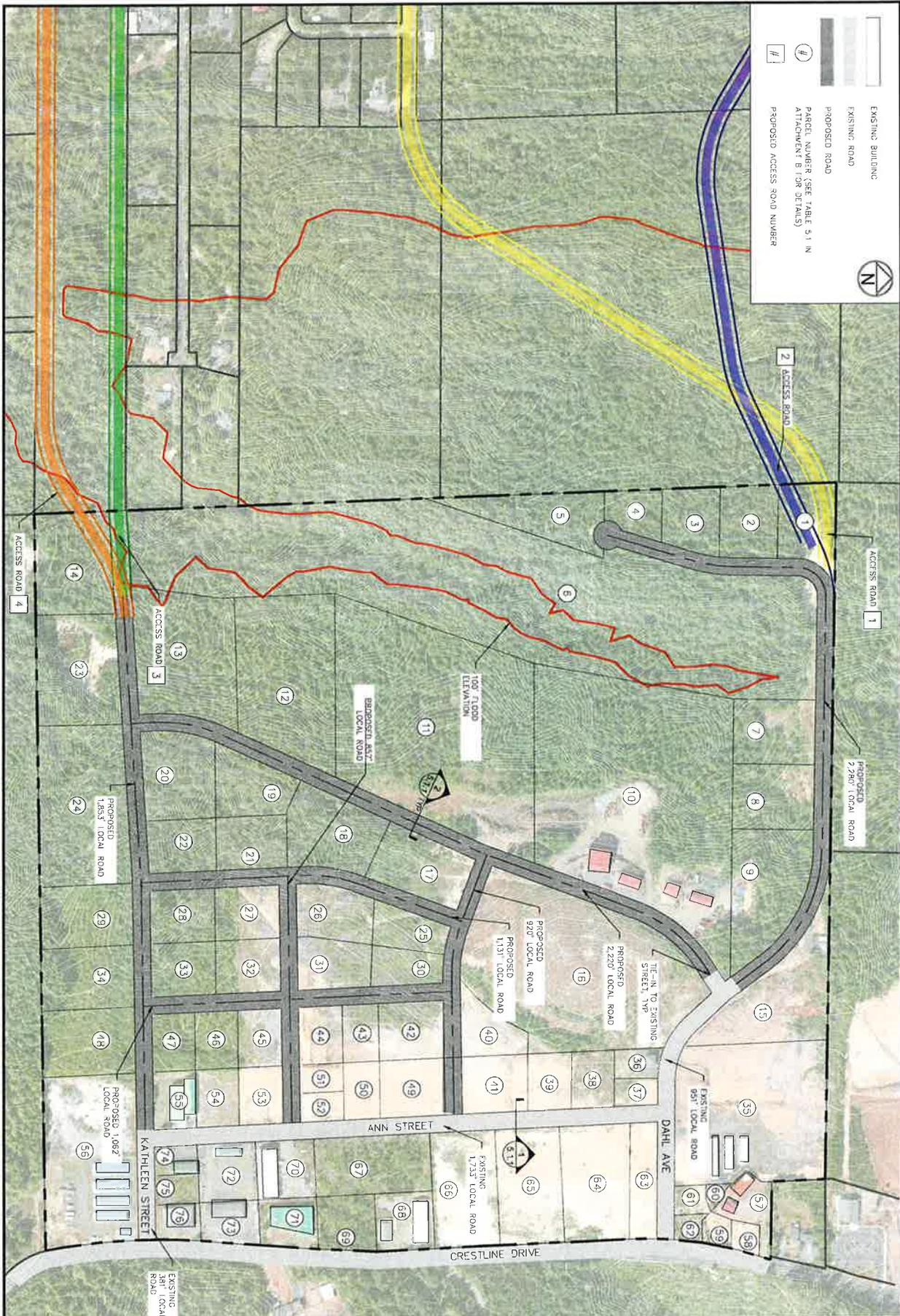


FIGURE 5.1
 DRAWN BY: KR
 DATE: 5/6/2016

INDUSTRIAL PARK
 LOCAL ROAD LAYOUT

CITY OF WALDPART
 LINCOLN COUNTY, OREGON





Image 5.1.2 Crestline Drive – Dahl Avenue Intersection



Image 5.1.3 End of Dahl Avenue at Dahl Transfer Station



Image 5.1.4 Dahl Avenue – Anne Street Intersection



Image 5.1.5 Kathleen and Anne Street Intersection



Image 5.1.6 Anne Street

Proposed improvements to these existing local roads (3,065') would add curb and gutter and 5 foot sidewalks to each side, widening it by approximately 14 feet. This would allow for two 15-foot travel lanes. New local roads in the project area (10,300') will have the same cross section, both of which meet the 2010 updated Comprehensive Plan Street Design Standards for local streets, as shown in Figure 5.1.1. See Figure 5.1 for plan view layout of the existing and proposed local roads.

Both new and improved existing roads will be centered in 60-foot wide right of ways (ROW), as per City code.

5.2 Alternative Collector Access Roads

One of the major constraints for development of the Waldport Industrial area has been the lack of adequate and direct access to the site, particularly since this activity will potentially generate an increase in truck and passenger car traffic in this area. Currently, Highway 101 and Highway 34 serve a majority of the truck traffic in Waldport, but Range Drive and Crestline Drive provide truck access to the limited commercial and industrial development in the upland area.

The City of Waldport understands that as the industrial zoned area continues to develop, Range Drive and Crestline Drive will experience additional truck and residential traffic. These two Collector streets are currently marginally adequate for this type of functionality, however, Crestline Drive/Wakonda Beach Road could serve as access to the Industrial Park for an interim period until trip generation from the site develops to a point where the Level of Service of this route becomes more than a Level E, as recommended in the City TSP. This Feasibility Study provides an overview of the parameters that will be further detailed in the Master Planning effort. See Figure 5.2 for layout of Access Road Options.

Policy Framework

Recommended street projects included in the Lincoln County Transportation Master Plan (1999/2009) include medium priority rated project K - a new East-West Road in South Waldport Connecting Hwy. 101 and Crestline Drive. Potential locations that were identified included:

- West from Crestline Drive through the industrial zoned land and through land currently located outside the Urban Growth Boundary. This would necessitate an exception to the statewide goal of prohibiting development of new roads outside urban growth boundaries
- Extend Seabrook Lane east and south, connecting to Crestline Drive south of the Golf Course, i.e. Green Dr.
- East from Highway 101 near the existing weigh station connecting to Crestline Drive south of the Golf Course.

The Waldport Comprehensive Plan Transportation Goal 12, Policy 5 discusses that for future development, the City of Waldport shall consider new or improved east-west oriented collector streets, i.e. south of Range Drive connecting Highway 101 to Crestline Drive. A new Highway 101 - Crestline Drive connection will provide a more convenient access to the industrial development in order to alleviate truck traffic on Range Drive and Crestline Drive and could potentially allow for future restrictions on truck traffic on these streets, per Policy 6, below, of the Waldport TSP.

Truck Route Plan Policies

Policy 6. If, in the future, a new collector road is constructed in south Waldport from Highway 101 to the industrial zoned land, the City shall consider restricting truck access on Range Drive and Crestline Drive.

The Transportation System Plan (TSP) for Lincoln County considers transportation issues and guides transportation policy choices and system development for a 20-year planning period between 2007 and 2027.

In addition, State transportation policies, including Strategies 1.2.2, 1.3.2, and 2.1.4 of the 2006 OTP and Action 1B.5 of the OHP, support the development of connected networks of local, arterial, and collector streets to improve local traffic movements and preserve state highways for intercity transportation.

Trip Generation

The full build-out of the Industrial Park assumes that, per Waldport Comprehensive policy, each site can have 50% maximum lot coverage. This figure has been used to approximate the most conservative analysis. As shown in Attachment B - Table 5.1, the full building coverage may be up to 2,171,902 square feet. The ITE Common Trip Generation Rates Table (PM peak hour) assumes that per 1,000 ft² of building space, 0.85 trips are generated at the PM peak hour. For the Industrial Site full build-out, preliminary estimates assume a peak hour traffic rate of approximately 2,170 trips per hour. The Master Plan will analyze the traffic impact both on Highway 101 and on the existing local roads, examining parameters such as: traffic counts; site trip generation, distribution and assignment; capacity analysis; intersection site distance, access management, level of service, etc.

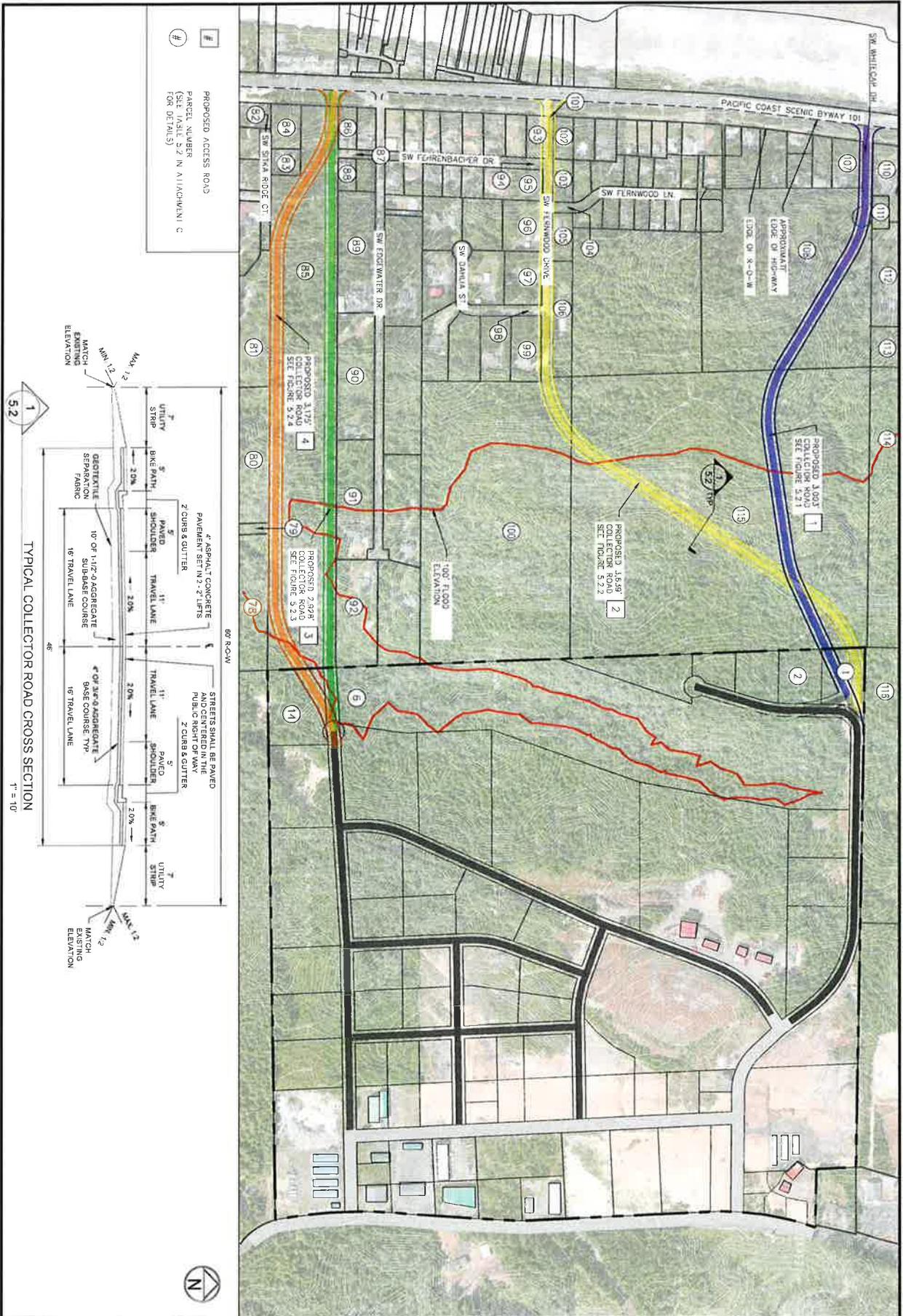


FIGURE 5.2

INDUSTRIAL PARK
 ACCESS ROAD OPTIONS

CITY OF WALDPART
 LINCOLN COUNTY, OREGON



DRAWN BY: KR
 DATE: 5/6/2016

Collector Street Design Standards

Figure 5.2 shows all four Access Road layout options, with a typical cross section. These streets are considered as Major Collector Streets. All four Access Road options will need to run through Lincoln County property, zoned R-1 and/or RR-2. As such, street design standards for the construction of various classifications of roads as identified in the Lincoln County Comprehensive Plan and zoning regulations shall be adhered to.

All four of the alternatives will require access to Highway 101, which is regulated by the ODOT and the Oregon State Highway Design Manual.

With a 60-foot ROW, two 16-foot travel ways, 2-foot curb and gutter, 5-foot sidewalks and 7-foot utility strips, all Access Road options will meet both County and City requirements. Waldport Development Code and the TSP, updated 2010, road design standards are shown in Table 5.1. Where topographical requirements necessitate either cuts or fills for the proper grading of roads, additional right-of-way or slope easements may be required.

Lincoln County Code stipulates that road grades shall not exceed 12 percent, except that a maximum of 15 percent may be permitted on pitches less than 200 feet long. Variations from these standards may be granted by the fire service having responsibility for the area when topographic conditions make these standards impractical and where the local fire protection district states that their fire-fighting equipment can negotiate the proposed road grades. Code also requires that curve centerline radii shall be not less than 225 feet.

Type of Street	Right-of-Way Width	Surface Width
1. Collector streets and all business streets other than arterials:	60' - 80' +	36' - 48' +
2. Local streets in residential areas:	56' ++	28' ++
3. Cul-de-sacs:	50'	28'
4. Circular ends of cul-de-sacs:	90' +++	70' +++
5. Hammerheads:	++++	++++

Notes:

- + The City may require a width within the limits shown based upon adjacent physical conditions, safety of the public and the traffic needs of the community. The standard street section for collector and business streets is two 16-22' travel lanes, 2' curb and gutter, 5' sidewalk and 7' utility strip. This may be altered upon approval by the Waldport Public Works Department, utility companies, and the Planning Commission.
- ++ The standard street section for local streets is two 14' travel lanes, 2' curb and gutter, 5' sidewalk, and 7' utility strip. This may be altered upon approval by the Waldport Public Works Department, utility companies, and the Planning Commission.
- +++ Measured by diameter of circle constituting circular end.
- ++++ Hammerheads will be of such width and length as to allow for adequate turn-a-round of all emergency vehicles as determined by the Public Works Director and in consultation with the Central Oregon Coast Fire and Rescue District.

Table 5.1 Waldport Street Design Standards (2010)

Highway 101

US 101 is designated as the Oregon Coast Highway No. 9, as it serves the Oregon Coast region. Much of the highway runs between the Pacific Ocean and the Oregon Coast Range, thus US 101 is frequently mountainous in character. In the project area, it is a two-lane undivided highway approximately 40-feet in width, with a posted speed limit of 55 MPH. The speed limit changes to 45 mph 0.6-mile north of Access Road Option #1.

The Oregon Highway Plan (OHP) identifies US 101 in the Study Area as a Statewide Highway, not a freight route, and a Non-Designated Urban Highway (meaning that it runs through an urban area and does not carry any special land use designations).

All four of the alternatives will require access to Highway 101, which is regulated by the ODOT and the Oregon State Highway Design Manual. This Feasibility Study identifies conceptual layouts for these intersections. Close collaboration with the District Manager and Regional Access Management Engineer and/or Access Management sub-team will ensure a safe, cost-effective and functional solution, intended to increase the safety, capacity, mobility, and connectivity of the transportation system.

Should the Master Planning level effort find that in some areas, the conceptual designs are non-standard, there is a process for applying for a design exception to these standards for stretches of roadway where other designs may be more appropriate.

Traffic Volumes:

The peak travel period in the study area is during the summer months. During times of heavy traffic on state highways, drivers on county roads at intersections with state highways must wait for opportunities to enter or cross the highway. Sight distance is also a safety concern at some county road intersections with state highways. See Table 5.2 for traffic volumes captured by ODOT in 2014.

2014 TRAFFIC VOLUMES ON STATE HIGHWAYS			
Milepoint	2014 AADT All Vehicles	ATR AVC	Location Description
OREGON COAST HIGHWAY NO. 9 (Continued)			
140.96	17600		0.02 mile south of Abbey Street
141.37	17200		0.02 mile south of S.W. Waterline Drive
142.16	14400		0.05 mile south of S.E. Pacific Way
142.28	13100		0.05 mile north of Ferry Slip Road
142.45	12500		0.05 mile south of Ferry Slip Road
144.40	9800		0.10 mile south of Airport Road
145.74	9100		0.10 mile south of S.E. 98th Street
146.46	9200		South city limits of Newport, 0.04 mile north of S.E. 116th Street
148.98	9500		0.02 mile south of Beaver Creek Road
154.06	9400		0.02 mile south of Legion Road
155.07	9800		0.02 mile south of Bayview Road
155.92	9900		0.02 mile south of Alesia Highway (OR34)
156.36	8400		South city limits of Waldport
157.24	7200		On Patterson Creek Bridge
158.99	6400		0.02 mile south of Wakonda Beach Road
162.24	5400		On Vingie Creek Bridge
163.41	5700		North city limits of Yachats
164.10	5800		0.02 mile north of 7th Street
164.45	4700		0.01 mile northwest of Yachats River Road
164.48	4500		0.02 mile southeast of Yachats River Road
165.48	3700		South city limits of Yachats

Table 5.2 ODOT 2014 Traffic Volumes on Highway 101

The TSP for Lincoln County (2007) conducted an HCM Unsignalized Intersection Capacity Analysis for the Wakonda Beach Rd & US 101 intersection. The plan found that in 2005, the intersection was functioning at 41.8% of its Intersection Capacity Utilization and its LOS was classified as A. When projected out to the year 2027, this intersection was analyzed to function at 57.4% of its capacity and would be classified at a LOS of B, which exceeds OHP mobility standards during the 30th highest hour.

In addition, the *Waldport Yaquina John Point Land Use and Transportation Final Preferred Plan* (adopted June 14, 2012 into the Waldport Municipal Code) found that the 2035 future traffic operations results are projected to operate acceptably within the standards set by ODOT and the City of Waldport through the year 2035. This analysis took into account new household and employment growth. Results show that the Range Drive – Highway 101 intersection has a projected V/C ratio of 0.42 in 2035, which is well below the suggested V/C ratio of 0.60, per the Lincoln County TSP for intersections in the Urban Growth Boundary.

Various methods of estimating future traffic growth have been developed for planning purposes. The Cumulative Analysis method was selected by the Yaquina John Point Plan, to estimate future traffic volumes in the Waldport subarea. The ODOT Analysis Procedures Manual (APM – Reference 1) identifies the Cumulative Analysis method as appropriate for “small urban areas that are growing at a fairly uniform rate or for areas where only minor changes are expected to take place.” Two distinct components comprise the cumulative method:

- Background growth reflecting anticipated increases in through traffic
- Household and employment growth within the subarea that results in new land development

Access Management:

Oregon Administrative Rule (OAR) 734-051, updated December 2011, provides access management standards for state facilities that address when approaches to state roadway facilities are regulated, spacing standards for approaches to state highways, and when and how access management plans should be prepared.

Lincoln County’s TSP includes a recommendation to adopt access management standards that reflect state standards into the development code; however, while other recommended text amendments from the TSP are reflected in the current version of the Lincoln County Code, this section is not included.

The applicable spacing standard is determined based on the classification of the highway segment, its posted speed limit, its location relative to urban areas, and its average daily traffic volume.

The location and spacing of road approaches should be in conformance with the ODOT Access Management Standards and as described in the Oregon Highway Plan (Table 14), shown in Table 5.3.

The decision for placement and design of a road approach must be consistent with the function of the highway and optimize the safety and operational efficiency for vehicles as well as bicyclists and pedestrians. The road approach design will accommodate the turning movements of the appropriate design vehicle. All road approaches, public and private, require a construction permit from the appropriate District Maintenance Office.

**Table 14: Access Management Spacing Standards
For Statewide Highways With Annual Average Daily Traffic (AADT) Of More Than 5,000
Vehicles**

Posted Speed (mph)*	Rural Expressway **	Rural Areas	Urban Expressway ** ***	Urban Areas ****
	Spacing (ft)			
55 or higher	5,280	1,320	2,640	1,320
50	5,280	1,100	2,640	1,100
40 & 45	5,280	990	2,640	800
30 & 35	-	770	-	500
25 & lower	-	550	-	350

* Posted Speed: Posted speed can only be adjusted (up or down) after a speed study is conducted and that study determines the correct posted speed to be different than the current posted speed. In cases where actual speeds are suspected to be much higher than posted speeds, the Department reserves the right to adjust the access management spacing accordingly. A determination can be made to go to longer access management spacing standards as appropriate for a higher speed. A speed study will need to be conducted to determine the correct speed.

** Spacing for Expressway at-grade intersections only. See Table 12 for interchange spacing.

*** These standards also apply to Commercial Centers.

**** The Urban standard applies in UBAs unless a management plan agreed to by ODOT and the local government(s) establishes a different standard. Spacing standards on access controlled facilities are also guided by those controls.

Table 5.3 ODOT Spacing Standards

As discussed previously, the traffic volume in the project area along Highway 101 is greater than 5,000 vehicles per day.

With a posted speed limit of 55 MPH through this area, the current spacing standards are:

- Rural Area: 1,320 feet

Traffic Operations Standards:

US 101 Mobility Standards

State Highway Mobility Standards were developed for the 1999 Oregon Highway Plan (OHP) as a method to gauge reasonable and consistent standards for traffic flow along state highways. These mobility standards consider the classification (e.g., freeway, district) and location (rural, urban) of each state highway, as shown in Table 5.4. Mobility standards are based on volume-to-capacity (V/C) ratios. V/C ratios are defined as the number of vehicles passing through a roadway segment during the peak hour, divided by the capacity of that roadway segment.

Highway	Highway Category	Land Use	Speed Limit	Applicable V/C Ratio
Inside Urban Growth Boundary				
	Statewide (NHS) Freight Routes	Non-MPO	≤35 mph	0.80
	Statewide (NHS) Non-Freight Routes and Regional or District Expressways	Non-MPO	≤35 mph	0.85
	Local Road, Arterial-Collector	Non-MPO	≤35 mph	0.90
Outside Urban Growth Boundary				
	Statewide (NHS) Freight Routes	Rural Lands	N/A	0.70
	Statewide (NHS) Non-Freight Routes and Regional or District Expressways	Rural Lands	N/A	0.70
	Local Road, Arterial-Collector	Rural Lands	N/A	0.75

Source: Adopted Oregon Highway Plan Amendments, August 17, 2005.

Table 5.4 ODOT Mobility Standards Applicable to Operational Analysis

However, County facilities do not fall under the same mobility standards as State facilities unless they are adopted as part of the TSP. The 2007 Lincoln County TSP has identified 20-year design manual mobility standards, as shown in Table 5.5.

Highway Category	Inside Urban Growth Boundary				Outside Urban Growth Boundary	
	STAs	MPO	Non-MPO Outside of STAs Where Non-freeway Speed Limit <45 mph	Non-MPO Where Non-freeway Speed Limit ≥ 45 mph	Unincorporated Communities	Rural Lands
Interstate Highways and Statewide (NHS) Expressways	N/A	0.75	0.70	0.65	0.60	0.60
Statewide (NHS) Freight Routes	0.85	0.75	0.70	0.70	0.60	0.60
Statewide (NHS) Non-Freight Routes and Regional or District Expressways	0.90	0.80	0.75	0.70	0.60	0.60
Regional Highways	0.95	0.85	0.75	0.75	0.70	0.65
District/Local Interest Roads	0.95	0.85	0.80	0.75	0.75	0.70

Table 5.5 Lincoln County TSP 20-Year Design Manual Mobility Standards (V/C Ratios)

All the highway intersections in the Study Area are along US 101, a Statewide Non-Freight Route and are considered rural roads outside the Waldport Urban Growth Boundary. The current Lincoln County design mobility standards are 0.60.

Waldport LOS Operations Standards

Level of service (LOS) is a qualitative measure used to relate the quality of traffic service. LOS is used to analyze highways by categorizing traffic flow and assigning quality levels of traffic based on performance measure like speed, density, etc.

The City’s TSP notes that: “The City of Waldport does not have specific LOS standards for intersection operations. Typically, local jurisdictions in Oregon consider LOS E or better to be the standard for unsignalized intersections. At signalized intersections, LOS D or better is a typical standard for acceptable operations.”

Site Distance at Access Road – Highway 101 Intersection:

The safe operation at intersections or driveways requires adequate sight distance so drivers can enter the roadway safely. The primary definition for intersection sight distance is provided by the AASHTO Policy on Geometric Design for Streets and Highways, i.e. the Green Book. The methods to determine intersection sight distance are based on models that describe the operation of the entering vehicle and the conflicting vehicle on the major roadway. Access roads onto Highway 101 would be considered Case III - Stop Controlled Intersections.

AASHTO requires that there shall be an unobstructed sight distance along both approaches and both sides at an intersection (within the right-of-way) for distances sufficient to allow the operators of vehicles, approaching simultaneously, to see each other in time to prevent collisions at the intersection. Any object within the sight triangle more than 30 inches high (such objects include: buildings, cut slopes, hedges, trees, bushes, utility cabinets, or tall crops) above the flowline elevation of the adjacent street shall constitute a sight obstruction, and shall be removed or lowered. In no case shall any permanent object encroach into the “line of sight” of any part of the sight-distance triangle.

Trip Generation at Access Road – Highway 101 Intersection:

Trip generation estimates reflecting the anticipated growth in the Industrial Park will be prepared based on trip rate data published in the standard reference manual, Trip Generation, 8th Edition, published by the Institute of Transportation Engineers (ITE). Trips will be estimated for all locally-generated trips within the study area.

The cumulative method combines historical growth trends with information about existing and planned land uses to predict total future traffic volumes. The methodology to be employed considers two categories of trips:

- Through trips (External-External): those vehicles that travel through the subarea on US 101 but don't leave the highway
- Locally-generated trips (Internal-External, External-Internal, or Internal-Internal): vehicles that have at least one terminus within the study area

Through Trips

Ideally, through trips would be measured by completing a survey of users on US 101. This type of data collection can be a time and resource intensive endeavor. A simpler method of approximating through traffic can be determined through evaluation of existing turning movements at key intersections on US 101, namely at Range Street and Wakonda Beach Drive.

The State of Oregon Analysis Procedures Manual (APM) method of assessing through trips assumes that all turning movement volumes off the highway are destined to or originate within the subarea. There are no major intersecting roadways with US 101 in the study area that may carry statewide or regional travel. Thus, this assumption is reasonable. It will be assumed as part of this analysis that all turn movements on/off of US 101 within the study area are made to uses within the Industrial Park subarea or are traveling through the study area. Those trips that travel as through movements on US 101 are considered *through trips*.

Locally-Generated Trips

After accounting for through trips, the remaining trips are assumed to be generated by uses within the Industrial Park subarea to locations outside the study area. While it may be an unrealistic assumption that all locally-generated trips will have one trip end outside the study area, this assumption will produce a conservatively high estimate of traffic on streets in the study area. The majority (but not all) of these trips will use US 101 and are assumed to be generated by industrial and household activities within the Industrial Park subarea and traveling to/from uses outside the subarea.

Trips that are locally-generated will be assigned to turning movements into and out of local streets intersecting US 101 proportionate to existing turning movements at these intersections, as previously discussed and referenced. Since the access street will be new, turning movements will be estimated using adjacent local street turning movements, particularly at Range Street and Wakonda Beach Drive.

The following sections will outline the four Access Road alternatives.

5.2.1 Option 1 (AR #1)

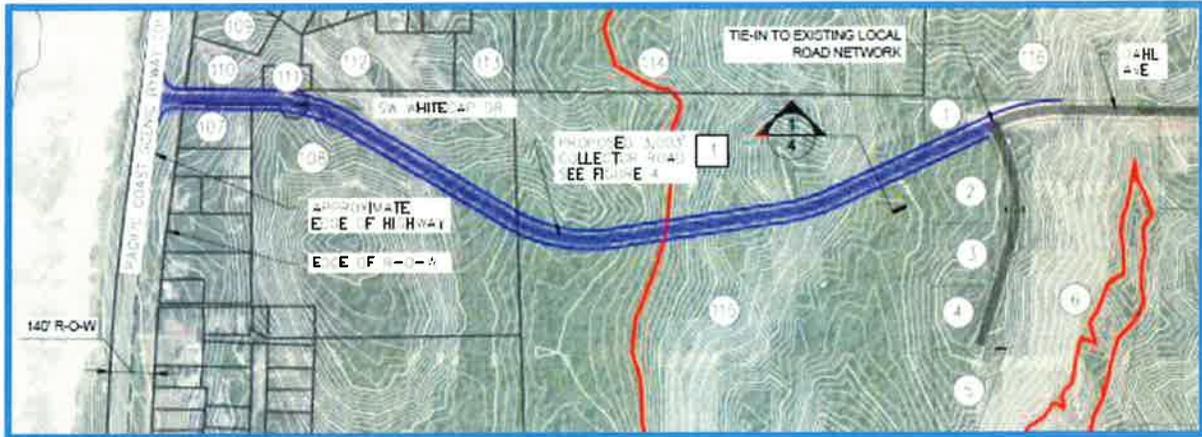


Figure 5.2.1 Access Road #1

Access Road #1 (AR #1) is approximately 3,000 lineal feet in length, as shown in Figure 5.2.1. This alignment runs through 3 existing lots (115, 108 & 107).

AR #1 connects to Highway 101 at Whitecap Drive, which is a gravel road approximately 15' wide, running a length of roughly 300'. Currently, Whitecap Drive has a 50' wide ROW, 350 feet in length, with a turnaround on the east end.

As such, 10' of ROW will need to be secured on the north edge of Lot 107 for approximately 215 feet (shown as a dashed red line in Image 5.2.1a). The house on Lot 107 is set back roughly 50' from the current ROW, so an additional 10' on the ROW would still allow a 40' separation. See Image 5.2.1a. and Table 5 in Attachment C for information on existing lots along the Access Road options.



Image 5.2.1a Plan View Highway 101 at White Cap Drive Intersection



Image 5.2.1b White Cap Drive at Highway 101 Intersection



Image 5.2.1c Highway 101 at White Cap Drive Intersection Looking South

There is some concern that the required AASHTO sight distances at this intersection may be difficult to meet due to Highway 101 vertical grades (Image 5.2.1c), and an in-depth analysis will need to be performed prior to proceeding forward with this option.

It is preferable to have a relatively flat or slightly elevated roadway connecting with a state highway, generally a 2% - 3% landing for 20' is adequate. This helps improve the visibility of the intersecting roadway and can also help control highway drainage.

Currently there is a 7% slope intersecting the highway, which will need to be flattened out to meet ODOT requirements.

The alignment as shown meets all of the Lincoln County requirements in that horizontal curves are no smaller than 485' (225' min per code) and vertical slopes range between 0% and 15% (12%-15% max per code). ODOT Access Mobility spacing standard may require an exception. Spacing between White Cap Drive and SW Breakers Drive to the north is currently approximately 700'. Spacing standards require 1,320' in a rural area. To the south, SW Fernwood Drive is currently about 1,486', which is within the standards.

A 250 lineal foot retaining wall roughly 10 feet high will be required due to the existing topography.

Advantages

- Meets access road goals.
- Provides tsunami evacuation route.
- Minimum impacts to the residents near Highway 101.

Challenges

- 125 ROW acquisition (10' wide)
- 1,700 lineal feet of alignment lies within the 100-year flood zone limits
- Needs detailed sight distance requirement analysis

- May require Access Mobility spacing standard exception
- Approx. 250' long, 10' high retaining wall required

5.2.2 Option 2 (AR #2)

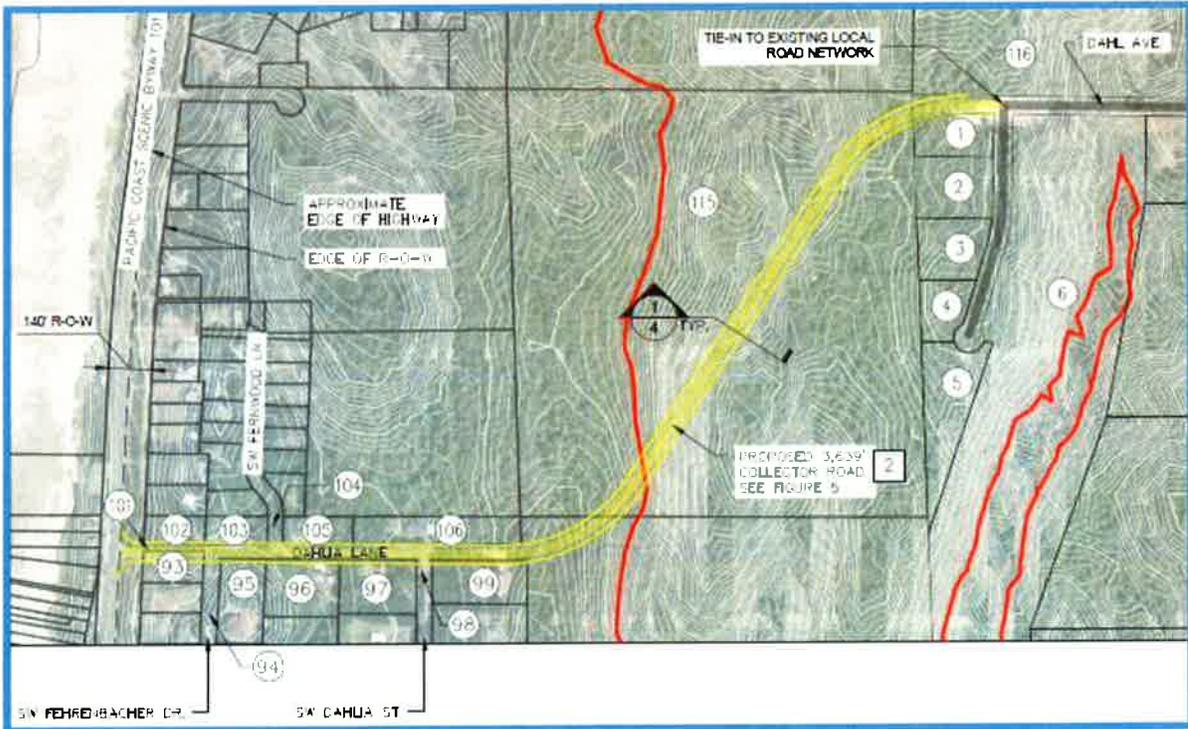


Figure 5.2.2 Access Road #2

Access Road #2 (AR #2) is approximately 3,640 lineal feet in length, as shown in Figure 5.2.2. This alignment runs through 3 existing unimproved lots (115, 100 & 107) and significantly impacts 5 lots near the Highway intersection.

AR #2 connects to Highway 101 at SW Fernwood Drive, sometimes called Dahlia Lane. The current ROW is only 25' wide (for 225') then increases to 50' (for 385'), as shown on Image 5.2.2a. The house currently on Lot 93 sits roughly 10' south of the 25' ROW. County Code requires a front yard setback on lots zoned R-1 and RR-2 of 20', however there is a Special Setback requirement of 30' from a collector street less than 60' wide, which would apply. The houses on Lots 96, 97, 99, 103, 105 and 106 currently are set back from the existing ROW approximately 20'. Information on existing lots along the Access Road options can be found in Attachment C.

There are several ways to fit a new 60' ROW through here, but at least one house will need to be removed and 5 houses will be significantly impacted.



Image 5.2.2a Access Road #2 at Highway 101 and SW Fernwood Drive Intersection

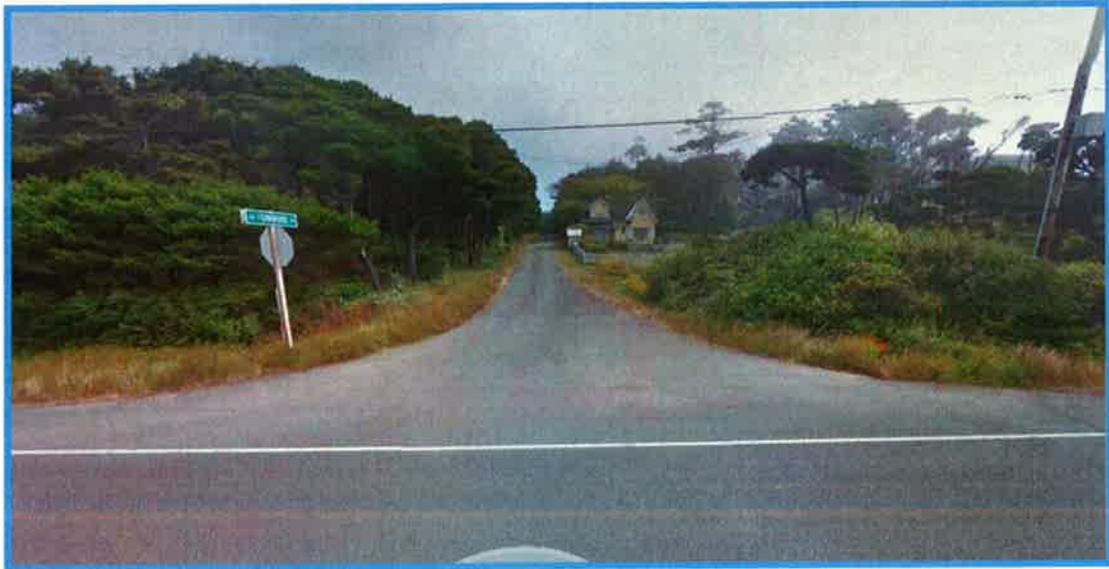


Image 5.2.2b Access Road #2 at Highway 101 Intersection

The alignment as shown meets all of the Lincoln County requirements in that horizontal curves are no smaller than 485' (225' min per code) and vertical slopes range between 0% and 15% (12%-15% max per code).

Currently there is a 6% slope intersecting Highway 101, which will need to be flattened out to meet ODOT requirements.

OOT Access Mobility spacing standard may require an exception. Spacing between SW Fernwood Drive and the existing location of Edgewater Drive to the south is currently approximately 780'. Spacing standards require 1,320' in a rural area.

An approximately 500 lineal foot retaining wall roughly 10 feet high will be required due to the existing topography.

Advantages

- Meets access road goals.
- Provides tsunami evacuation route.

Challenges

- 610' ROW acquisition
- Results in the displacement of 1 home near Highway 101.
- Significant impacts to the 5 lots near Highway 101.
- 1,770 lineal feet of alignment lies within the 100-year flood zone limits, which may have negative impacts on the floodplain.
- May require Access Mobility spacing standard exception
- Approx. 500' long, 10' high retaining wall required

5.2.3 Option 3 (AR #3)

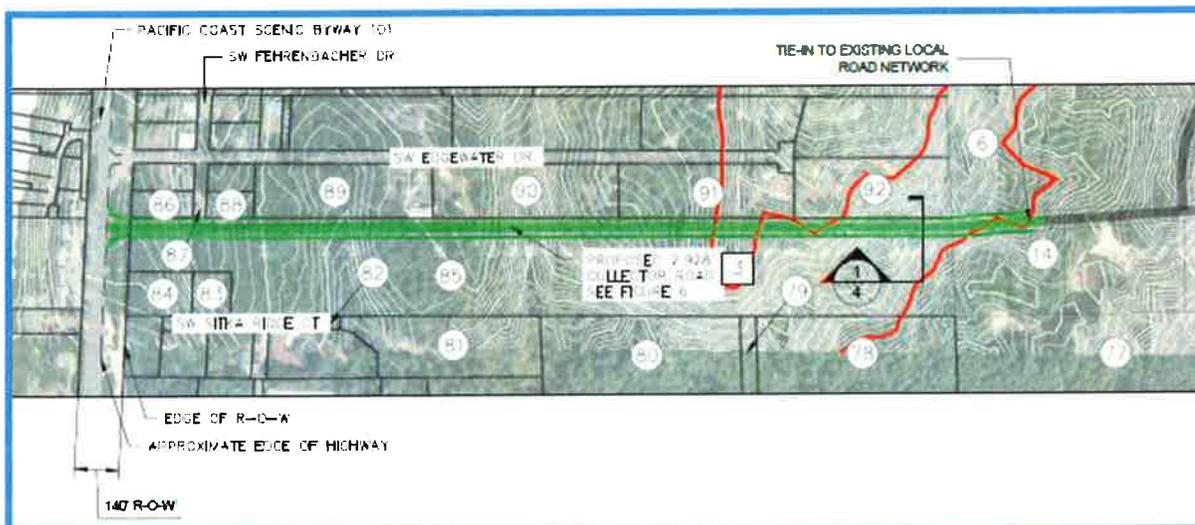


Figure 5.2.3 Access Road #3

Access Road #3 (AR #3) is approximately 2,930 lineal feet in length, as shown in Figure 5.2.3. This alignment runs through only 1 existing lot (85), which is zoned RR-2 and is currently vacant.

AR #3 connects to Highway 101 south of the existing SW Edgewater Drive, through Lot 85. There currently is not a ROW through this lot. See Images 5.2.3a and 5.2.3b.



Image 5.2.3a Plan View of Access Road #3 and #4 at Highway 101 Intersection



Image 5.2.3b Access Road #3 and #4 at Highway 101 Intersection

As can be seen in Image 5.2.3a, the house on Lot 87 is constructed 20' from the back yard lot line and would be significantly impacted by this Access Road alignment.

Currently there is a 150' of level topography at the Highway 101 intersection that will not need to be changed.

The alignment as shown meets all of the Lincoln County requirements in that there are no horizontal curves and vertical slopes range between 0% and 15% (12%-15% max per code).

A 60' lineal box culvert, roughly 10 feet high and 30' wide, will be required due to the existing topography.

The required Access Mobility spacing standard may require an exception. With Option #3 and #4, there would be a 780' spacing to Azalea Lane to the south. Spacing standards require 1,320' in a rural area.

In addition, directly across the street from both Access Road #3 and #4 options, are 2 popular tourist based businesses: Edgewater Cottages and Cape Cod Cottages (see Image 5.2.4.a). These options will need extensive public involvement and possibly restrictions on truck traffic flow hours at the intersection.

Advantages

- Meets access road goals.
- Provides tsunami evacuation route.
- No ROW acquisition at Highway 101 intersection
- Flat approach to Highway for 150'

Challenges

- Significant impact to one lot near Highway 101.
- Potential negative public involvement feedback due to business proximity across the highway.
- May necessitate an exception to the statewide goal of prohibiting development of new roads outside urban growth boundaries.
- May require an exception to the Access Mobility spacing standard.
- 1,900' lineal feet of alignment lies within the 100-year flood zone limits
- Approx. 60' long, 10' high box culvert required.

5.2.4 Option 4 (AR #4)

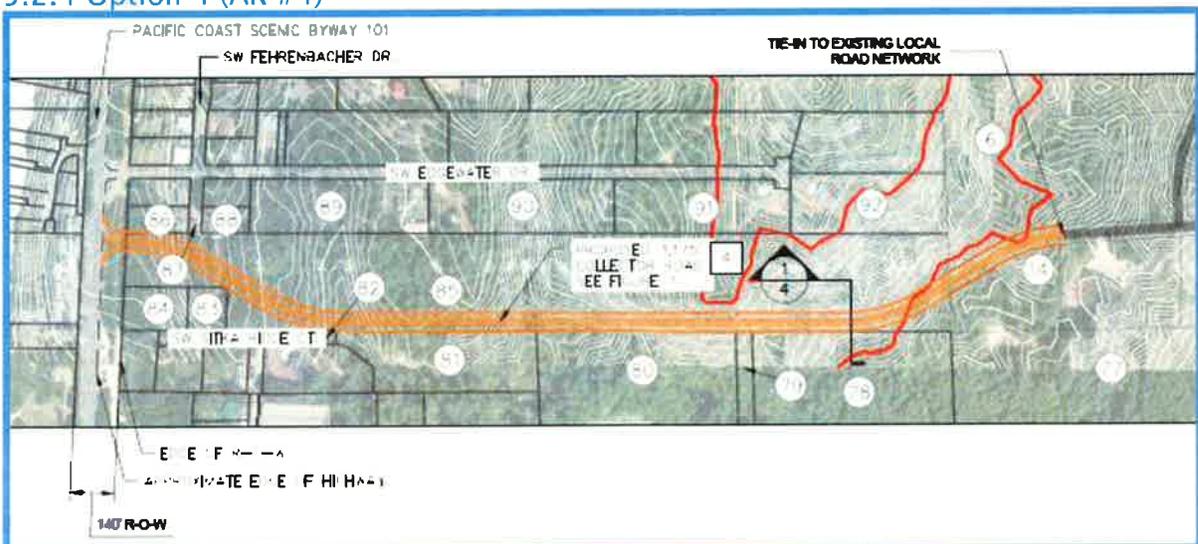


Figure 5.2.4 Access Road #4

Access Road #4 (AR #4) is approximately 3,175 lineal feet in length, as shown in Figure 5.2.4. This alignment runs through only 1 existing lot (85), which is currently vacant. AR #4, like AR #3 connects to Highway 101 south of the existing SW Edgewater Drive, through Lot 85. There currently is not a ROW through this lot. See Images 5.2.3a and 5.2.3b.

Currently there is 150' of level topography at the Highway 101 intersection that will not need to be changed.

The alignment as shown meets all of the Lincoln County requirements in that there are no horizontal curves and vertical slopes range between 0% and 15% (12%-15% max per code).

A 60 lineal box culvert, roughly 10 feet high and 30' wide, will be required due to the existing topography.

Advantages

- Meets access road goals.
- Provides tsunami evacuation route.
- No ROW acquisition at Highway 101 intersection
- No impacts to lots near Highway 101.
- Flat approach to Highway for 150'

Challenges

- Potential negative public involvement feedback due to business proximity across the highway.
- May necessitate an exception to the statewide goal of prohibiting development of new roads outside urban growth boundaries.
- May require an exception to the Access Mobility spacing standard.
- 2,600 lineal feet of alignment lies within the 100-year flood zone limits, which may have negative impacts on the floodplain.



Image 5.2.4a Access Road #3 and #4 at Highway 101 Intersection – Business across Highway

6.0 Site Infrastructure Requirements

6.1 Water

While the project area is currently located in the jurisdiction of Southwest Lincoln County Water District (SWLCWD), the City also has nearby infrastructure that could serve the site. This study researched both systems' capacities to meet the requirements of the fully developed Industrial Park and are discussed in further detail in Section 7.1.1.

6.1.1 City of Waldport

The City of Waldport water system serves the majority of the Waldport city limits, however a large portion of the south/southwest part of the city is under the jurisdiction of the Southwest Lincoln County Water District (SWLCWD). The closest portion of the City's water infrastructure is located at Crestview Middle School, where an 8" water main serves fire protection water service for the campus.

At this time, an agreement between SWLCWD and the City is intended to provide water under emergency conditions only. This agreement is not intended to serve as a regional water supply or water supply partnership.

The 8" PVC waterline running down the west side of Crestline Drive to just north of the project site near Green Drive could be connected to in order to bring water to the site. Approximately 13,400 lineal feet of 8"-12" PVC would need to be installed to accommodate the full 76 lot layout on site. See Figure 6.1 for a conceptual plan of both the water and wastewater layout on the site.

The City has been granted 6.73 CFS (4.34 MGD) of water rights. Operational treatment capacity of the water plant filters limits production to 0.504 MGD. The Water Management and Conservation Plan (WMCP, 2012) projected that by 2031, the average daily demand is projected to increase to 0.321 mgd total and the peak day demand is projected to 0.802 mgd. With filter upgrades, the plant may produce 0.8 MGD. See Section 7.1.1 for more details.

The City currently has three categories for its water use: residential, multi-dwelling and commercial. All Public and industrial water uses are lumped into the commercial water sector. It is recommended that the City break down their usage in a more detailed manner to accommodate potential increased water usage from the industrial sector due to this project development.

6.1.2 SWLCWD

Information about the Southwest Lincoln County Water District (SWLCWD) has been obtained from the *Southwest Lincoln County Water District Water Management and Conservation Plan, Adopted April 2014*. Currently, emergency domestic water service to the southeast portion of the Industrial Park project site is serviced by SWLCWD through an 8" PVC line with valve isolation that may be opened under emergency situations. However this line, which is tied in to the Dick's Fork treatment plant, cannot serve the site for fire emergency water requirements.

The Water District's water distribution system is connected to the City of Waldport and to the City of Yachats. There are intergovernmental agreements relating to the use of these interties, but the use of has been limited. See Section 7.1.1 for more details.

According to the WMCP (2014), the two different service elevations from each treatment plant are connected by pressure-reducing valves at two locations allowing water from the Dick's Fork reservoir to

feed into the lower system if needed and a pump station, which is capable of supplying the water needed in the higher service area from the Seabrook Reservoir. However, this pump station has a capacity of 450 gpm.

The Industrial Park Master Plan will update information on the water system infrastructure and capacity and will detail the possible solutions to adequately serve all of the site.

6.2 Wastewater

The City wastewater system currently does not serve the industrial park area. The closest portion of the Sewer system is located near the intersection of Green and Crestline Drives. The school lot to the north of the site currently has an on-site gravity system that is lifted via 4,200 lineal feet of 4" PVC force main to the upper manhole on the Crestline Drive line.

Approximately 12,000 lineal feet of 8" – 10" gravity flow sewer piping and 41 manholes will need to be installed to accommodate the full 76 lot layout on site. Flows will run by gravity to a STEP type of lift station located near Lot 14, to the southwest of the site. From there, 4"- 6" diameter force main will pump the sewage up to Crestline Drive. A detailed analysis of the system capacity will need to be conducted for the Master Plan in order to assess which portion of the existing system the Industrial Park peak flows can be the most efficiently tied into. See Figure 6.1 for a conceptual plan of both the water and wastewater layout on the site.

A Crestline Drive bypass has been constructed in order to modify the existing system to handle the increased flows generated by adding Bayshore, South Waldport and UGB Unit #3 (which includes the Industrial site) to the system. However, due to the configuration of the infrastructure, this bypass is currently not functional during heavy rain and Infiltration/Inflow events and will need to be reconfigured.

The Wastewater Master Plan (2000) estimates that projected flows in 2020, including the Industrial Park, will reach a maximum month wet weather flow of 1.89 MGD. The wastewater treatment plant is currently configured for a maximum month wet weather flow of 0.70 MGD, however the capacity can be significantly increased to meet future demands by the installation of additional sequencing batch reactors (SBR) tanks.

The Industrial Park Master Plan will update information on the waste water system infrastructure, capacity and recommended upgrades to accommodate the projected project flows.

6.3 Storm Water

The onsite surficial soils are sandy and could mobilize easily during winter storm events. Conceptual project improvements include additional impervious surfaces such as paving and sidewalks. An increase in impervious surface will likely lead to an increase in peak stormwater flows from the site and potentially into the unnamed tributaries to Little and Patterson Creeks. Additionally, an increase in impervious surface may increase the potential for pollutants to reach the streams and ultimately the Pacific Ocean. Therefore, some form of stormwater treatment is recommended prior to discharge into the existing, natural drainage flows west of the site, even if no regulatory permits are required.

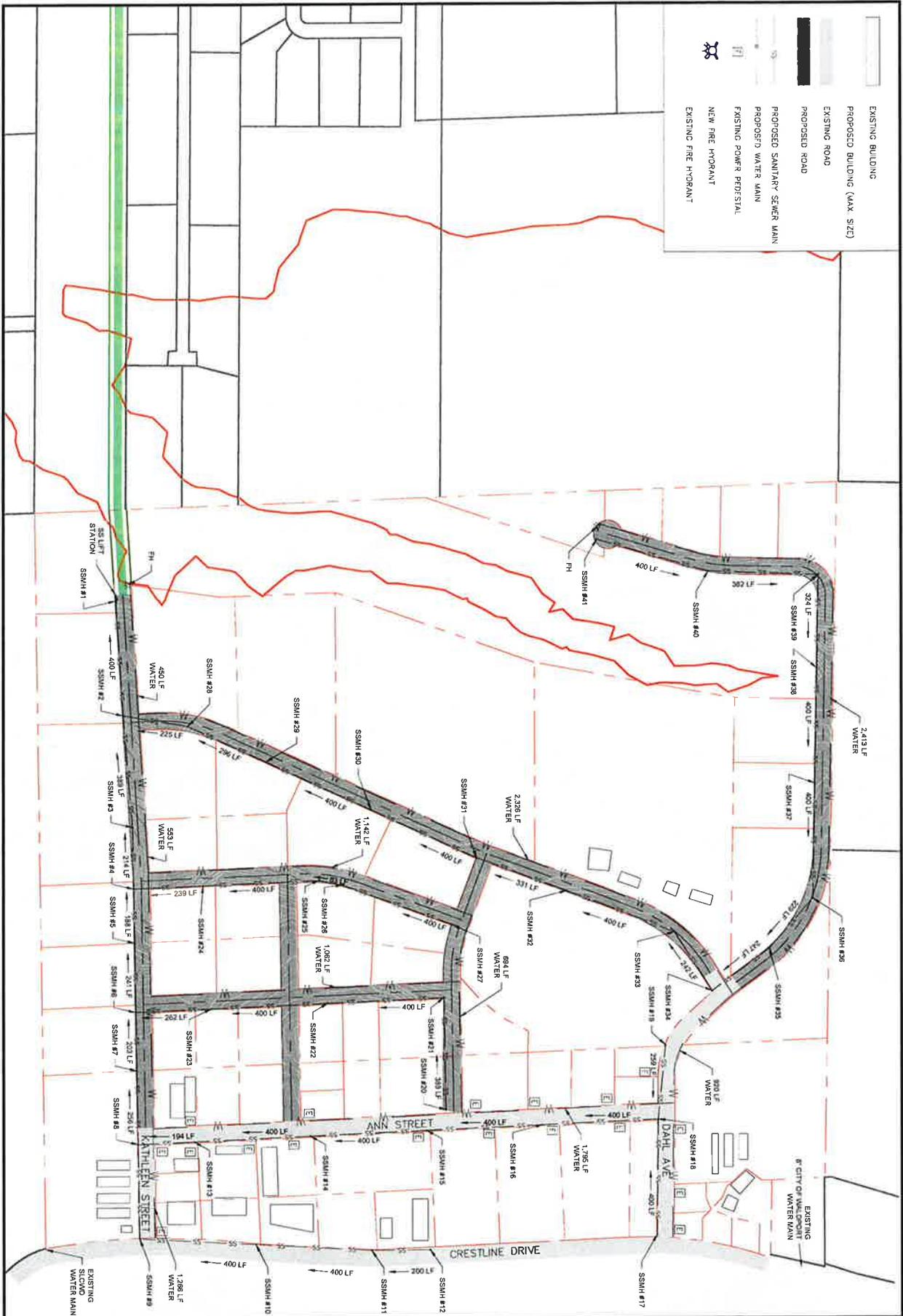
The 1999 Storm Water Master Plan emphasizes the use of centralized storm sewer systems to manage stormwater. However, low impact development (LID) mitigation strategies can alleviate or lighten the burden to a jurisdiction's storm sewer system by allowing water to percolate through soil onsite or detaining water so water enters the storm sewer system at lower volumes, at lower speed, and at lower temperatures.

No jurisdictions in Waldport refer to LID techniques in their stormwater management plans. Utilizing decentralized LID stormwater management strategies could help reduce the burden of the Industrial Park development on the lower elevation storm sewer systems, and will be further analyzed in the Master Plan.

It appears that Lot 20 has a natural low spot that may need to be utilized for storm water management and this lot has not been included in the total developable land acreage. The Master Plan will analyze the storm water management in detail, including a preliminary grading strategy and conveyance into the natural drainage flows west of the site.



Image 6.1 School Lift Station



- EXISTING BUILDING
- PROPOSED BUILDING (MAX. SIZE)
- EXISTING ROAD
- PROPOSED ROAD
- PROPOSED SANITARY SEWER MAIN
- PROPOSED WATER MAIN
- EXISTING POWER PEDISTAL
- NEW FIRE HYDRANT
- EXISTING FIRE HYDRANT

FIGURE 6.1
 DRAWN BY: KR
 DATE: 5/6/2016

INDUSTRIAL PARK
 PROPOSED UTILITY LAYOUT

CITY OF WALDPOR
 LINCOLN COUNTY, OREGON



7.0 Summary

Research for this study found that it appears the Industrial Park Area development is feasible, though not without challenges. The main challenges found were in the following areas:

7.1 Site Infrastructure

7.1.1 Water

Water Demand

Land use based water demand projections are derived by applying either a per-acre water demand factor or a per-dwelling unit water demand factor to either the number of acres slated for development or the number of dwelling units. The per-acre demand factor is expressed as a projected volume per acre of land with a specific land use classification and conservative density assumption. We used the per-acre method in this case for light industrial use, which is intentionally broad, because the final land use features are generally not certain, including exact type of use and building footprints, both which can have an impact on water demands. Table 7.1 shows Typical demands for Non-Residential Land Uses from the Tully and Young *Land Use/Water Supply Guidebook* (2007)

Classification	Use Type	% acreage	Demands (af/acre)
Moderate Intensity Office	Indoor	40	2
	Hardscape	50	n/a
	Landscape	10	4
Light Industrial Office	Indoor	60	2
	Hardscape	35	n/a
	Landscape	5	4
Community / Neighborhood Retail	Indoor	40	1
	Hardscape	55	n/a
	Landscape	5	4
Regional Retail	Indoor	35	1
	Hardscape	60	n/a
	Landscape	5	4
Light Industrial	Indoor	60	2
	Hardscape	35	n/a
	Landscape	5	4
Heavy Industrial	Indoor	45	3
	Hardscape	45	n/a
	Landscape	10	4
Parks	Indoor	5	.5
	Hardscape	20	n/a
	Landscape	75	4
Schools	Indoor	10	3
	Hardscape	40	n/a
	Landscape	50	4

Table 7.1 Typical Indoor/Outdoor Uses for Non-Residential Land Uses

We are assuming that the total developable land is 111.35 acres, which is the total 161.37 acres minus 50.02 acres that includes ROW's and lots that will not be developed, as shown in Table 4.1. With a full build-out and minimized landscape water use, preliminary analysis estimates a total demand of 0.13 MGD average water usage for the Industrial Park. Using a maximum day demand (MDD) peaking factor of 2.5 (as established in the 2012 WMCP), this corresponds to an additional peak flow of 0.33 MGD.

Fire protection water service demands will vary, depending on the size and type of buildings that are constructed on the IP site. Minimum requirements, per the 2007 Oregon Fire Code, could range from a minimum of 1,500 gpm for 2 hours to a maximum of 3,750 gpm for 3 hours.

Capacity to Meet Water Demand

City of Waldport

The City has been granted 4.34 MGD of water rights. Operational treatment capacity of the water plant filters currently limits production to approximately 0.504 MGD. However, planned improvements to increase the filter capacity to 506 gpm will allow the production to reach 0.802 MGD. In 2012, the WMCP (2012) found that the City withdrew for use about 0.260 MGD on an average annual day, with a peak day demand of about 0.649 MGD. By 2031, the average daily demand was projected to increase to 0.321 MGD total and the peak day demand projected to increase to 0.802 MGD total. Based on these projections, in the year 2026, approximately 10% (11 acres) of the available developable land in the park can be industrialized to stay in the current capacity of the plant, which would then be at full capacity.

A 2-million gallon treated water reservoir serves the IP area. Preliminary analysis finds that even the highest lots will have 53 psi of water pressure. The City installed a duplex pump station for the nearby school campus when it was built, which appears to be able to provide the required minimum flow rates for fire service in the Industrial Park, with minor upgrades to the pumps. The 2 million-gallon reservoir will be able to handle the anticipated fire flows, however integration with the system as a whole will need to be analyzed.

SWLCWD

Currently, the Dick's Fork treatment plant services the area near the Industrial Park site. The Water District has had a permit to divert water from Dick's Fork totaling 0.40 cfs (0.215MGD) since 1994. The Dick's Fork facility has a rated treatment capacity of 200 gpm (0.288 MGD). After treatment, the water is pumped to the 100,000 gallon Dicks Fork reservoir at elevation 330 feet. The highest lots on the IP site will have 56 psi of pressure from this reservoir. However, the size of the reservoir limits the availability of fire flows to 1,500 gpm for 1.1 hours with no reserves left. The Seabrook pump station can deliver treated water into the Dick's Fork tank at a maximum rate of 450 gallons per minute, which is considerably less than a minimum of 1,500 gpm required for fire-fighting purposes.

The five-year average, ending in 2013, for total water production/annual water use for the Dick's Fork plant was 0.018 MGD. Using a peaking factor of 2.23 (as used in the 2014 WMCP), the average MDD was 0.040 MGD. Based on these projections, in the year 2026, approximately 10% (11 acres) of the available developable land in the park can be industrialized to stay in the current capacity of the plant, however, this does not include fire flow requirements.

Service Delivery Options to the IP Site

The City of Waldport and the SWLCWD have been working together to serve the areas to the south of the main town of Waldport for several decades. The Industrial Park site is within the City of Waldport

limits and the Urban Growth Boundary, but is currently served by the Water District.

There are three options for bringing water infrastructure to the IP site:

1. The District provides domestic and fire protection water services
2. The District provides domestic and the City provides fire protection water services
3. The City provides domestic and fire protection water services

There are several constraints and/or questions regarding each of these options that will need to be clarified to fully service the IP site. There are questions about the overlapping of systems. If one agency is providing domestic water and the other is providing water for fire protection, development may be discouraged if added infrastructure costs are required to serve both systems. In addition, there could be problems with detecting the source of leaks due to the unconnected pipe systems. Also, if one agency is providing water (both domestic and fire) and the other sewer, then there is an additional public health risk due to the potential for cross-connection between potable and waste water.

In addition, both agencies will need to look at infrastructure expansion in the future to service the full build out of the IP site and also keep up with other growth in the area. The City of Waldport currently has sufficient raw water rights, treatment and storage capacity to serve the IP site with both domestic and fire water service. In the future, the City will need to look at expansion of the water treatment facility, as already planned. The City currently also has wastewater infrastructure in the area that can be modified to serve the project site.

The SWLCWD could serve the site with domestic water service, but is not able to provide sufficient emergency water service or wastewater infrastructure. The limiting factors in this system include lack of adequate reservoir storage and/or pump stations for fire flow.

7.1.2 Sewer

The current system that has been planned to service this area will most likely need to be upgraded to accommodate additional flows. While the Crestline Drive bypass modified the existing system to handle the increased flows generated by adding Bayshore, South Waldport and UGB Unit #3 (which includes the Industrial site) to the system, the infrastructure needs to be reconfigured to allow for peak events.

Assuming wastewater flows of 1,850 gals per net acre per day, which is based on a study done in Albany, Oregon by CH2MHill (1985), preliminary dry weather average wastewater flows from the full Industrial Park buildout are estimated to be 0.18 MGD. Using a peak factor of 2.0, dry weather peak flows are assumed to be approximately 0.36 MGD. The peak I/I flow rates will need to be added to this flow in order to properly size the wastewater system and assess the capacity of the City wastewater plant.

The Industrial Park Master Plan will update information on the detailed wastewater projected flows of the development, along with waste water system infrastructure and capacity to accommodate the projected project flows.

7.1.3 Storm Water

Storm water treatment is recommended prior to discharge into the existing, natural drainage flows west of the site. An increase in impervious surface will lead to an increase in peak storm water flows from the site and potentially into the unnamed tributaries to Little and Patterson Creeks. Additionally, an increase

in impervious surface may increase the potential for pollutants to reach the streams and ultimately the Pacific Ocean.

The Master Plan will analyze the storm water management system in detail, including a preliminary grading strategy and conveyance into the natural drainage flows west of the site, utilizing Lot 20 for on-site storm water management prior to discharge off the site.

7.2 Alternative Collector Access Roads

Four Access Road alternatives to the site were reviewed and selected in conjunction with the City of Waldport for consideration and evaluation in this Feasibility Study. The development of the alternatives was focused on providing a safe, cost-effective and functional solution to the Industrial Park access. The study considered safety, traffic operations, access management, land use, and environmental impacts.

While all 4 alternatives are feasible, each option presents a number of challenges. Cost considerations include length of the option, number and extent of drainage and retaining wall structures, ROW acquisition, etc. Environmental constraints will need to be addressed by all 4 options. Highway 101 intersection considerations will need to take into account ODOT input, safety, traffic operations, exceptions to the regulations and public involvement issues, etc.

Table 7.3 shows a breakdown of the constraints of the 4 Access Road alternatives, while Section 5.2 gives details on each Option. Close collaboration between the City of Waldport, Lincoln County representatives and the ODOT District Manager and/or the Regional Access Management Engineer will ensure that a safe, cost-effective and functional solution is chosen from the 4 alternatives. This in turn, will increase the safety, capacity, mobility, accessibility and connectivity of the transportation system in this area for all concerned.

As an interim Alternative, continued use of Crestline Drive/Wakonda Beach Road could serve as access to the Industrial Park for a limited period until trip generation from the site develops to a point where this minor collector road and the intersection at Highway 101 can no longer function at a safe and effective level, as determined by local, County and State standards.

7.2.1 Access Road Alternatives Summary

Findings from this Feasibility Study along with discussions between representatives from the City of Waldport, Lincoln County and the Oregon Dept. of Land Conservation and Development have led to some preliminary recommendations.

Access Road #1 will continue to be assessed as we move forward into the Master Planning phase.

Access Road Option #2 is no longer being considered for future analysis due to an excessive number of constraints in terms of cost, topography and the impact on numerous residential lots.

Access Roads #3 and #4 will be combined and further analyzed to offer a single southern alternative that captures some of the benefits of each of the options and minimizes undesirable impacts.

The continued use of Crestline Drive/Wakonda Beach Road will be further assessed in the Master Plan to serve as an Access Alternative for an interim period until trip generation from the site develops to a point where the functionality, safety and level of service of this route and the intersection at Highway 101 can no longer meet local and state regulations.

Screening Criteria	Access Road #1	Access Road #2	Access Road #3	Access Road #4
Engineering and Construction Complexity				
Length	3,003'	3,639'	2,928'	3,175'
Horizontal Alignment (225' radius max.)	4 Curves 485' each	2 Curves 485' each	Straight	4 Curves 485' each
Vertical Alignment (12% -15% max.)	0% to 15%	0% to 15%	0% to 15%	0% to 15%
Drainage Infrastructure	Road Cross Culverts	Road Cross Culverts	Two Box Culverts Road Cross Culverts	Two Box Culverts Road Cross Culverts
Retaining Wall	250' long 10' high	500 lineal feet MSE wall (10 ft high)	NA	NA
Environmental Constraints				
Wetlands Impacts	Possible constraints	Possible constraints	Possible constraints	Possible constraints
Creek Crossings	NA	NA	1 (Tributary to Little Creek)	1 (Tributary to Little Creek)
Flood and Erosion Considerations	X	X	X	X
Zoning/Land Use				
Existing Zoning	R-1 RR-2 I-P	R-1 RR-2 I-P	R-1 RR-2 I-P	R-1 RR-2 I-P
ROW Constraints	215' ROW acquisition on developed lots	610' ROW acquisition on developed lots	NA	NA
Adjacent Land Constraints	NA	1 home displacement 5 houses significant impact	Impact to 1 house	NA
Highway 101 Intersection				
Site View	Possible constraints	NA	NA	NA
Access Management Spacing Standards	Possible exception required	Possible exception required	Possible exception required	Possible exception required
Public Involvement Issues	Impact mostly to residential lots	Impact mostly to residential lots	Adjacent business concerns	Adjacent business concerns
Industrial Site Constraints				
Lots	Lot #1 will not be a buildable lot, thus the site will only have 75 lots.	Lot #1 will lose square footage.	NA	Lot #14 will lose square footage.

Table 7.2 Access Road Alternatives

8.0 References

The following documents were reviewed for policies and regulations applicable to development of the Waldport Industrial Park:

Federal

- Transportation Planning Rule (OAR 660-12)
- Oregon Transportation Plan (1992)
- Oregon Highway Plan (1999)
- Oregon Bicycle and Pedestrian Plan (1995)

State/ODOT

- Transportation Planning Rule (OAR 660-12)
- Oregon Transportation Plan (1992)
- Oregon Highway Plan (1999)
- Oregon Bicycle and Pedestrian Plan (1995)
- Access Management Rule (OAR 734-051)
- Freight Moves the Oregon Economy (1999)
- Proposed Oregon Coast Highway Corridor Master Plan (1995)
- Pacific Coast Scenic Byway Corridor Management Plan for US 101 in Oregon (1997)
- US 20/OR 34 Newport to Sweet Home Interim Corridor Strategy (1998)
- Oregon Department of Environmental Quality (DEQ)

Lincoln County

- Comprehensive Plan (2009)
- Lincoln County Natural Hazards Mitigation Plan (2015)
- Transportation System Plan (October 2007)
- Lincoln County Economic Study (August 2014)
- SWLCD Water Management and Conservation Plan (WMCP, 2014)

City of Waldport

- Comprehensive Plan (1982/2013)
- Transportation System Plan (1999/2009)
- Wastewater Collection System Master Plan (May 2000)
- Water Master Plan (April 2002)
- Water Management and Conservation Plan (2012)
- Storm Water Master Plan (1999)
- Waldport Yaquina John Point Land Use and Transportation Final Preferred Plan (adopted June 14, 2012 into the Waldport Municipal Code)
- South Waldport – North Subsection Local Improvement District (LID) Sanitary Sewer Construction

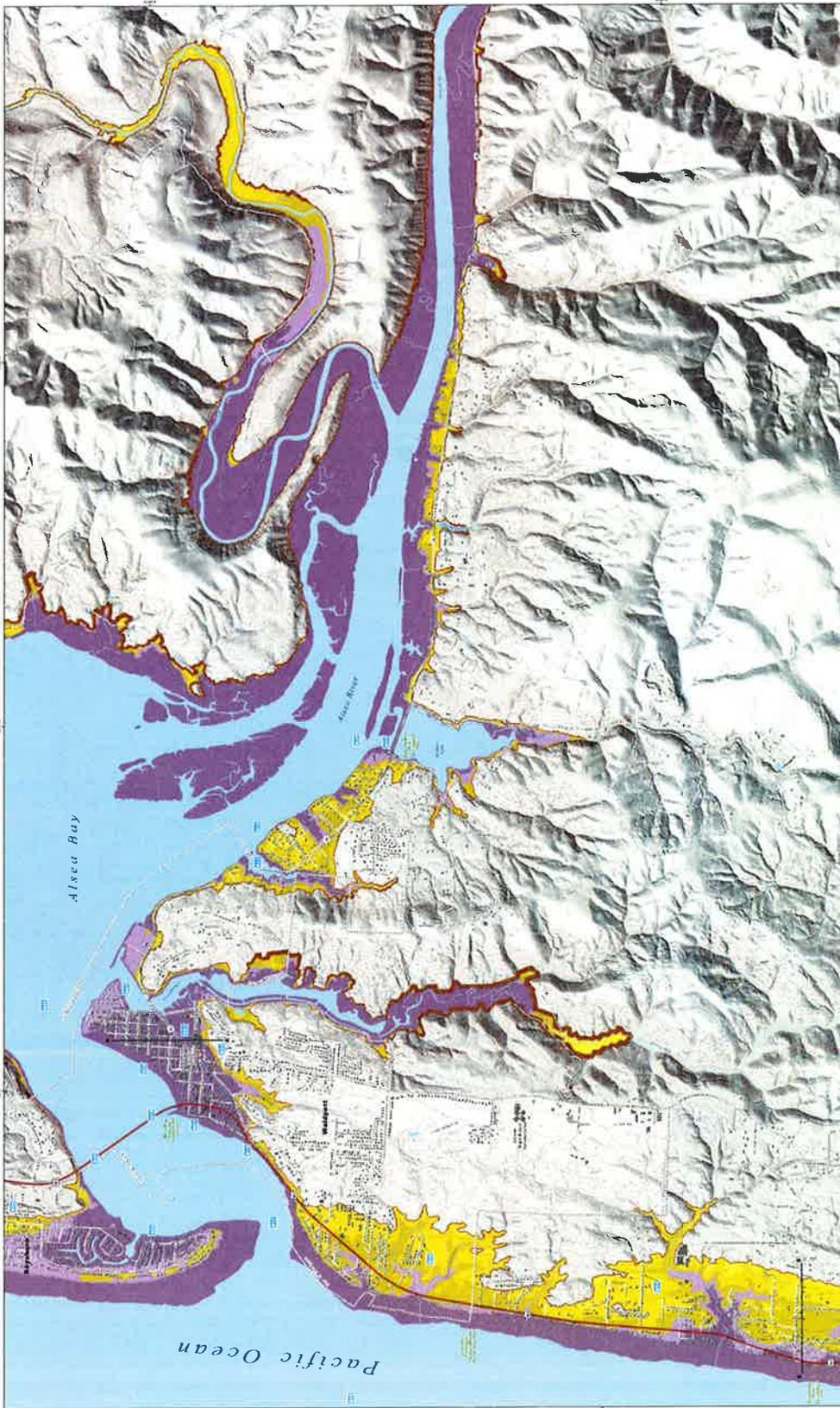
Attachment A

Local Source (CSZ) Tsunami Inundation Map – Waldport, Oregon

Department of Geology and Mineral Industries
State of Oregon

Local Source (Cascadia Subduction Zone) Tsunami Inundation Map Waldport, Oregon

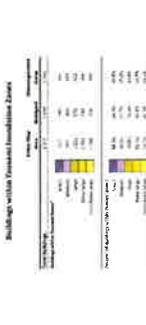
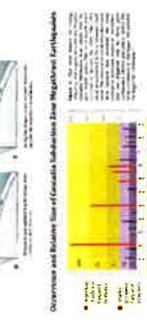
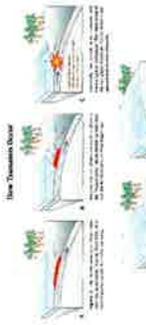
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 Prepared by: [unclear]
 Date: 11/16/12



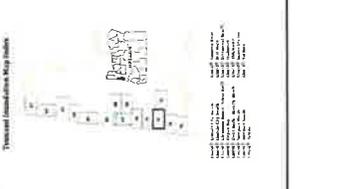
Introduction
 This map shows the potential inundation areas from a local source tsunami originating from the Cascadia Subduction Zone (CSZ). The map is based on a 2009 study by the Oregon Department of Geology and Mineral Industries (ODGI) and the Oregon Department of Transportation (ODOT). The study used a combination of field observations, historical data, and computer modeling to estimate the potential inundation areas from a local source tsunami. The map is intended to provide a visual representation of the potential inundation areas for emergency planning and risk assessment.

Map Description
 The map shows the potential inundation areas from a local source tsunami originating from the CSZ. The map is based on a 2009 study by the ODGI and ODOT. The study used a combination of field observations, historical data, and computer modeling to estimate the potential inundation areas from a local source tsunami. The map is intended to provide a visual representation of the potential inundation areas for emergency planning and risk assessment.

Map Legend
 The map legend defines the different inundation zones and their corresponding colors. The legend includes the following categories:
 - Inundation Depth: 1-2m (Yellow), 2-3m (Orange), 3-4m (Red), 4-5m (Purple), 5-6m (Dark Purple)
 - Inundation Type: Dry (Blue), Wet (Green)
 - Other: Road (Red), Building (Black), Water (Blue), Land (Grey)

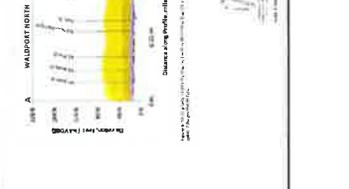
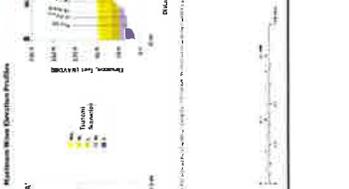


Map Information
 This map is a final inundation map for Waldport, Oregon, prepared by [unclear] on 11/16/12. The map is based on a 2009 study by the ODGI and ODOT. The study used a combination of field observations, historical data, and computer modeling to estimate the potential inundation areas from a local source tsunami. The map is intended to provide a visual representation of the potential inundation areas for emergency planning and risk assessment.



Legend

Inundation Depth	Inundation Type	Other
1-2m (Yellow)	Dry (Blue)	Road (Red)
2-3m (Orange)	Wet (Green)	Building (Black)
3-4m (Red)		Water (Blue)
4-5m (Purple)		Land (Grey)
5-6m (Dark Purple)		



Map Information
 This map is a final inundation map for Waldport, Oregon, prepared by [unclear] on 11/16/12. The map is based on a 2009 study by the ODGI and ODOT. The study used a combination of field observations, historical data, and computer modeling to estimate the potential inundation areas from a local source tsunami. The map is intended to provide a visual representation of the potential inundation areas for emergency planning and risk assessment.

Attachment B

Table 5.1 - Proposed Industrial Park Lot Information

CWE

Table 5.1
Industrial Park
Proposed Lots

Lot	Owner	Existing Lot	Proposed Lot	Lot Size (acres)	Existing Building Size (ft ²)	Proposed Building Size (acres)	Proposed Building Size (ft ²)	Notes
1	Gene R. Dahl		X	0.58		0.29	12,632	
2	Gene R. Dahl		X	1.30		0.65	28,314	
3	Gene R. Dahl		X	0.99		0.50	21,562	
4	Gene R. Dahl, Leone R. Dahl		X	0.57		0.29	12,415	
5	Leone R. Dahl, Trustee		X	1.58		0.79	34,412	
6	Gene R. Dahl, Leone R. Dahl, South Lincoln Landfill		X	21.42	-	-	-	Designated open space with trails
7	Gene R. Dahl		X	1.45		0.73	31,581	
8	Gene R. Dahl		X	1.45		0.73	31,581	
9	Gene R. Dahl		X	2.44		1.22	53,143	
10	Gene R. Dahl, Leone R. Dahl		X	12.32	12,300	6.16	268,330	
11	South Lincoln Landfill		X	10.50		5.25	228,690	
12	Leone R. Dahl		X	4.31		2.16	93,872	
13	Leone R. Dahl		X	3.43		1.72	74,705	
14	Leone R. Dahl		X	2.16		1.08	47,045	
15	Dahl & Dahl		X	2.68		1.34	58,370	
16	South Lincoln Landfill		X	8.45	-	-	-	Existing Landfill
17	South Lincoln Landfill		X	1.51		0.76	32,888	
18	Leone R. Dahl, South Lincoln		X	1.82		0.91	39,640	
19	Leone R. Dahl		X	1.20		0.60	26,136	
20	Leone R. Dahl		X	1.71		-	-	Storm Water Management
21	Leone R. Dahl		X	1.02		0.51	22,216	
22	Leone R. Dahl		X	0.99		0.50	21,562	
23	Leone R. Dahl		X	2.49		1.25	54,232	
24	Leone R. Dahl		X	3.91		1.96	85,160	
25	Leone R. Dahl, South Lincoln		X	0.77		0.39	16,771	
26	Leone R. Dahl		X	1.09		0.55	23,740	
27	Leone R. Dahl		X	0.93		0.47	20,255	
28	Leone R. Dahl		X	0.94		0.47	20,473	
29	Leone R. Dahl		X	1.58		0.79	34,412	
30	Leone R. Dahl		X	0.69		0.35	15,028	

Table 5.1
Industrial Park
Proposed Lots

Lot	Owner	Existing Lot	Proposed Lot	Lot Size (acres)	Existing Building Size (ft ²)	Proposed Building Size (acres)	Proposed Building Size (ft ²)	Notes
31	Leone R. Dahl		X	0.98		0.49	21,344	
32	Leone R. Dahl		X	0.94		0.47	20,473	
33	Leone R. Dahl		X	0.94		0.47	20,473	
34	Leone R. Dahl		X	1.58		0.79	34,412	
35	Dahl & Dahl		X	5.70	9,230	2.85	124,146	
36	TJJT	X		0.37		0.19	8,059	
37	Gene R. Dahl	X		0.33		0.17	7,187	
38	Leone R. Dahl	X		0.68		0.34	14,810	
39	Leone R. Dahl	X		0.68		0.34	14,810	
40	Leone R. Dahl		X	0.82		0.41	17,860	
41	Leone R. Dahl		X	1.02		0.51	22,216	
42	Leone R. Dahl		X	1.02		0.51	22,216	
43	Leone R. Dahl		X	0.57		0.29	12,415	
44	Leone R. Dahl		X	0.69		0.35	15,028	
45	Leone R. Dahl		X	0.68		0.34	14,810	
46	Leone R. Dahl		X	0.67		0.34	14,593	
47	Leone R. Dahl		X	0.67		0.34	14,593	
48	Leone R. Dahl		X	1.69		0.85	36,808	
49	Leone R. Dahl		X	1.01		0.51	21,998	
50	Leone R. Dahl	X		0.57		0.29	12,415	
51	Leone R. Dahl	X		0.34		0.17	7,405	
52	Leone R. Dahl	X		0.34		0.17	7,405	
53	Schweich Daniel and Carrie	X		0.68		0.34	14,810	
54	City of Waldport	X		0.67		0.34	14,593	
55	City of Waldport	X		0.67	10,525	0.34	14,593	
56	Glorietta Bay	X		4.30	16,000	2.15	93,654	
57	Robert M. Conway	X		0.61	5,100	0.31	13,286	
58	Robert M. Conway	X		0.15		0.08	3,267	
59	Russell R. Dahl	X		0.11		0.06	2,396	
60	Dahl Disposal Services	X		0.11		0.06	2,396	

Table 5.1
Industrial Park
Proposed Lots

Lot	Owner	Existing Lot	Proposed Lot	Lot Size (acres)	Existing Building Size (ft ²)	Proposed Building Size (acres)	Proposed Building Size (ft ²)	Notes
61	Gene R. Dahl		X	0.26		0.13	5,663	
62	Gene R. Dahl		X	0.21		0.11	4,574	
63	Gene R. Dahl	X		0.87		0.44	18,949	
64	Lee Arce Development Co.		X	2.15		1.08	46,827	
65	Lee Arce Development Co.		X	2.05		1.03	44,649	
66	Lee Arce Development Co.		X	2.05		1.03	44,649	
67	Northwest Pacific	X		1.84		0.92	40,075	
68	South Lincoln Resources	X		0.92	10,375	0.46	20,038	
69	David W. Wood	X		0.92		0.46	20,038	
70	Michael Schlosser	X		0.92	8,900	0.46	20,038	
71	329 Three LLC	X		0.72	12,200	0.36	15,682	
72	Pioneer Telephone Co.	X		0.92	2,550	0.46	20,038	
73	Pioneer Telephone Co.	X		0.64	7,200	0.32	13,939	
74	Lenard R. and Carrie Olsen	X		0.35	3,800	0.18	7,623	
75	Gerald Buchko	X		0.35		0.18	7,623	
76	Central Coast Builders Supply	X		0.45	7,500	0.23	9,801	
	TOTALS:	25	51	141.49	105,680	54.96	2,394,058	

Attachment C

Table 5.2 – Lot Information in Access Road Options Area

CWE

TABLE 5.2
Access Road Options
Existing Lots

Lot	Owner	Address	Taxlot #	Lot Size (acres)	Property Class	Notes
77	LEONE N. DAHL TRUSTEE		CO-13-11-31-00100-00	79.22	RR-2	VACANT
78	LARRY A. CLAUSSEN TRUSTEE		DA-13-12-36-00100-00	11.28	Special Assessed Vacant Forest Land	VACANT
79	LINCOLN COUNTY	SW FLANSBERG AVE				50' ROW
80	NEILSEN ORCHIDS, INC.	4470 SW FLANSBERG AVE	DA-13-12-36-00400-00	9.72	Improved Special Assessed Farmland	4+ BUILDINGS
81	ILENE SAMOWITZ		DB-13-12-36-03600-00	2.60	Residential Vacant Land	VACANT
82	LINCOLN COUNTY	SW SITKA RIDGE CT				50' ROW
83	ROBERT HAMILTON CARR TRUSTEE	4149 SW PACIFIC COAST HWY	13-12-36-AC-04100-00	0.36	Improved Residential Property	2 BUILDINGS
84	ROBERT HAMILTON CARR TRUSTEE		13-12-36-AC-04000-00	0.59	Residential Vacant Land	VACANT
85	R&C WASHINGTON FAMILY TRUST		13-12-36-AC-01200-00	17.45	Special Assessed Vacant Forest Land	VACANT
86	LAWRENCE RAYMOND FORD	4068 SW FEHRENBACHER DR	13-12-36-AC-01100-00	0.41	Improved Residential Property	1 BUILDING
87	LINCOLN COUNTY	SW FEHRENBACHER DR				40' ROW
88	JOHN W COOPER	4067 SW FEHRENBACHER DR	13-12-36-AC-01900-00	0.30	Improved Residential Property	1 BUILDING
89	BENEDICT K NUSSBAUMER	875 SW EDGEWATER DR	13-12-36-AC-03900-00	2.30	Improved Residential Property	1 BUILDING
90	JP MORGAN CHASE BANK	745 SW EDGEWATER DR	13-12-36-AD-00700-00	1.37	Improved Residential Property	2 BUILDINGS
91	GARY R. & DARYL K. ALLEN	649 SW EDGEWATER DR	13-12-36-AD-00600-00	2.22	Improved Residential Property	1 BUILDING

TABLE 5.2
Access Road Options
Existing Lots

Lot	Owner	Address	Taxlot #	Lot Size (acres)	Property Class	Notes
92	THEODORE M. KELLY TRUSTEE	629 SW EDGEWATER DR	13-12-36-AD-00500-00	2.15	Improved Residential Property	1 BUILDING
93	DAVID BRIAN ANTHONY	1239 SW FERNWOOD DR	13-12-36-AC-00200-00	0.46	Improved Residential Property	1 BUILDING
94	LINCOLN COUNTY	SW FEHREN-BACHER DR				50' ROW
95	JAMES F CULBERTSON	3795 SW FEHREN-BACHER DR	13-12-36-AC-03200-00	0.95	Improved Residential Property	1 BUILDING
96	JESSE V LAUB	1041 SW FERNWOOD DR	13-12-36-AC-03100-00	1.00	Improved Residential Property	1 BUILDING
97	LAURA HERRICK	968 SW FERNWOOD DR	13-12-36-AC-03000-00	1.00	Improved Residential Property	1 BUILDING
98	LINCOLN COUNTY	WHITECAP DR				50' ROW
99	CHARLES BATTLES CO-TRUSTEE	3765 SW DAHLIA LN	13-12-36-AC-02200-00	1.00	Improved Residential Property	1 BUILDING
100	LEONE N. DAHL TRUSTEE		13-12-36-AD-00100-00	21.31	Small Tract Forest Option Land	VACANT
101	LINCOLN COUNTY	SW FERNWOOD DR				25' ROW - 225' 50' ROW - 385'
102	JOHN M HARRISON	1212 SW FERNWOOD DR	13-12-36-AC-00100-00	0.44	Improved Residential Property	1 BUILDING
103	NEVA GAE CLAUSEN	1140 SW FERNWOOD DR	13-12-36-AC-02000-00	0.41	Improved Residential Property	1 BUILDING
104	LINCOLN COUNTY	SW FERNWOOD LN				50' ROW
105	DENNIS W JOLL	1052 SW FERNWOOD DR	13-12-36-AC-02100-00	0.46	Improved Residential Property	1 BUILDING
106	SEBASTIANI JACQUELYN A	902 SW FERNWOOD DR ;908 SW FERNWOOD	13-12-36-AC-04200-00	1.10	Improved Residential Property	1 BUILDING

TABLE 5.2
Access Road Options
Existing Lots

Lot	Owner	Address	Taxlot #	Lot Size (acres)	Property Class	Notes
107	PHILIP M HURLEY TRUSTEE	1225 SW WHITECAP DR	13-12-36-AB-00200-00	0.74	Improved Residential Property	1 BUILDING
108	LEONE N. DAHL TRUSTEE		13-12-36-AB-00100-00	14.12	Small Tract Forest Option Land	VACANT
109	LINCOLN COUNTY	SW WHITECAP DR				50' ROW
110	L T MERRITT	1240 SW WHITECAP DR	13-12-25-DC-01224-00	1.01	Improved Residential Property	1 BUILDING
111	BETTY L KRAUSE TRUSTEE		13-12-25-DC-01216-00	0.27	Residential Vacant Land	VACANT
112	DARREL M WEAVER	3025 SW BREAKERS CT	13-12-25-DC-01201-00	2.20	Improved Residential Property	1 BUILDING
113	MARY DEE YARNELL		13-12-25-DC-01200-00	1.41	Residential Vacant Land	VACANT
114	MARY DEE YARNELL		13-12-25-00-00500-00	51.52	Special Assessed Vacant Forest Land	VACANT
115	LEONE N. DAHL TRUSTEE		13-12-36-00-00100-00	40.00	Small Tract Forest Option Land	VACANT
116	DALE LAURANCE TRUSTEE		13-11-30-00-00800-00	39.74	Small Tract Forest Option Land	VACANT
117	LINCOLN COUNTY SCHOOL DISTRICT	2750 S CRESTLINE DR ;3000 S CRESTLINE DR	13-11-30-00-00901-00	42.15	Exempt School Improved Property	CRESTVIEW HEIGHTS AND WALDPORR HIGH SCHOOL
118	OREGON COAST COMM COLLEGE	3120 S CRESTLINE DR	13-11-30-00-00902-00	2.00	Exempt School Improved Property	OREGON COAST COMM COLLEGE
119	BRANDI C MILLER	3232 S CRESTLINE DR	13-11-31-B0-00100-00	0.52	Residential Improvement in Industrial Zone	VACANT



PROPOSED SCOPE OF SERVICES

Date: August 23, 2016

Work Order Number: 3208-005

To: Mr. Kerry Kemp, City Manager, City of Waldport

From: Andrea Stancliff, PE, Project Manager, Civil West Engineering Services, Inc.

RE: **Industrial Park Master Plan – Tier 2 Base – Scope of Services**
Civil West Project Number: 3208-005

The City of Waldport has an existing approximately 160-acre industrially-zoned area that is located along Crestline Drive in the southern part of the city. As a first step, the preliminary feasibility studies have been completed by Civil West. This study determined that the desired improvements are indeed feasible, though not without challenges, and the City can move forward with the comprehensive Master Plan analysis that is necessary for the site's development.

In the interest of working with the City of Waldport's current funding allocations, we are proposing to break out the Tier 2 services into base requirements and additional services. The scope of services for each Tier 2 task will remain the same as previously submitted but will be accomplished in 2 phases.

This proposed Scope of Services will include only the Tier 2 Base work items, however for informational purposes, we have included the Tier 2 Additional Items as well, which will need to be completed in order to finalize the Master Plan document.

Part A: Base Work Items (Included in this Scope of Services)

Waldport Master Plan BASE Recommendations

1. **Wetlands**

a. **Tier 2 – Moved to Tier 2 ADD**

2. **Traffic**

- a. **Tier 2 – In-depth Analysis:** The Feasibility Study narrowed the Access Road options to 3 alternatives: White Cap Drive route; a southern route combining Options 3 and 4; and continued use of Crestline Drive/Wakonda Beach Road for an interim period. In this item, we will continue to collect and analyze traffic data, including traffic counts and trip generation calculations, to assess the viability of each of these options. Our report will include recommendations for roadway improvements and preliminary cost estimates, as determined by the analysis.

3. **Utilities (Water, Sewer, Power)**

- a. **Tier 2 – Capacity, Supply & Demand:** An in-depth Master Plan of the utility systems on and off the site will be required to provide adequate water services, sewer services, and power to the

proposed development. This plan would address the capacity requirements of the developed site, and analyze this demand relative to the existing system’s capacity. Recommendations and preliminary cost estimates will be made for improvements to the utility networks in order to sufficiently service the developed site.

4. Storm Drain / Hydrology

- a. **Tier 2 – System Master Plan:** In this item, we will prepare a master plan report identifying storm drainage flows on and around the site, making recommendations for improvements to the storm drainage system, identifying potential locations for future pipes, catch basins, manholes, etc. and developing preliminary cost estimates.

5. Biological

- a. **Tier 2 – Moved to Tier 2 ADD**

6. Landfill

- a. **Tier 2 – Moved to Tier 2 ADD**

7. Survey

- a. **Tier 2 – Moved to Tier 2 ADD**

8. Site Planning

- a. **Tier 2 – Detailed Master Planning:** In this item, we will complete the site Master Planning services to establish a precise lot and roadway layout and general grading patterns for the entire useable area of the site.

Part B: Additional Items (Not part of this Scope of Services)

Waldport Master Plan ADDITIONAL Recommendations

1. ADD Wetlands

- b. **Tier 2 – Delineation:** In this item, we will finalize the wetland delineation report including the information to support the delineation survey, a summary of the data points, mapping, findings, narrative, and other key information that would be required by a regulatory agency should a submittal be required. The report will also include recommendations for mitigation or avoidance as it relates to the site development.

2. Traffic – NA

3. Utilities - NA

4. Storm Drain / Hydrology - NA

5. ADD Biological

- a. **Tier 2 – Report:** In this item, we will complete a report that documents the findings of the biological assessment, identifying the constraints that exist on the site for its use and development.

6. ADD Landfill

- a. **Tier 2 – Remediation Analysis:** Depending on the results of “Tier 1 – Landfill Determination”, it is possible that extensive geotechnical engineering may be required for the development of the landfill site. This engineering analysis could include soil tests, compaction tests, lab analyses, and extensive permitting. This would be an additional cost outside of this scope.

7. ADD Survey

- a. **Tier 2 – Data Collection:** In this item, our surveyor will complete the survey data for each data point in the wetland delineation, as well as complete a survey of all the property boundaries and topographical data on the site.

8. Site Planning - NA

Part C: Item Fee Proposal

As explained previously, Tier 2 fees have been broken out into Base requirements and Additional services. The Additional services were separated out, as the level of effort for these items is contingent upon the Tier 1 and Tier 2 Base results. The scope and fees for Tier 2 ADD will be revisited pending the previous results.

Item No.	Item	Tier 2 Base	Tier 2 Add
1	Wetlands	**	\$ 17,500
2	Traffic	\$ 25,000	
3	Utilities	\$ 30,000	
4	Storm Drain	\$ 15,000	
5	Biological	**	\$ 15,000
6	Landfill	**	
7	Survey	**	\$ 25,000
8	Site Planning	\$ 30,000	
TOTAL		\$ 100,000	\$ 57,500
GRAND TOTAL			\$ 157,500

** Dependent on results of Tier 2 Planning

The fee proposed above is a firm, fixed price, not to exceed maximum and includes all direct reimbursables for the scope of work described in this Task Order, with a total fee of **\$100,000** for Tier 2 Base work. Invoices will be based on percentage of each task completed for the invoice period.

The final product of this assessment will be a technical memorandum, spiral or comb bound, including a written summary and development of all the tasks described above under Tier 2 Base. The plan will include tables, figures, narratives, summaries, and other information necessary to provide the City with the planning information they require.

Part D: Project Schedule

We will be flexible and adjust our focus and efforts to meet the demands and desires of the City regarding project schedule. We can adjust our schedule to meet budgetary and timing constraints that the City has. The following preliminary schedule for Tier 2 Base is provided as a potential schedule for completion of this portion of the project.

City of Waldport – Industrial Park Master Plan – Tier 2 Base – Scope of Services for Engineering

1. Notice to proceed granted to begin Tier 2 - Base – by September 1, 2016
2. Prepare Draft Master Plan – September 1, 2016 to November 1, 2016.
3. Interim Draft Submittal – November 1, 2016.
4. City Review period – November 1, 2016 to November 15, 2016
5. Prepare Final Master Plan Tier 2 Base – November 15, 2016 to January 31, 2017.
6. Final Submittal Tier 2 Base – January 31, 2017.

As discussed previously, the results of this Scope of Services will be to prepare an Interim Master Plan, which will be followed up with the Tier 2 Additional work in order to complete the Final Master Plan by March 31, 2017.

We are grateful for the opportunity to provide these services to the City of Waldport and we are prepared to begin work on this important project as soon as we are authorized to do so. Please let me know if you have any questions or if you wish to see any alterations to our proposed approach. If this proposed approach is acceptable, please sign below and return a copy to our office for our records.

Sincerely,
Civil West Engineering Services, Inc.



Andrea Stancliff, PE
Area Manager

Authorized Representative Signature Accepting Scope of Services

Date

**Waldport Industrial Park
Feasibility Study/Master Plan**

Feasibility Study/Tier 1 \$60,000	IFA Grant \$60,000
	IFA City Match (\$5,000 Urban Renewal, \$10,000 General Fund, \$10,000 In-kind Services) \$25,000
Master Plan/Tier 2 Base \$110,000 (including \$100,000 cash and \$10,000 in-kind)	DLCD Grant \$60,000
	Private Contributions (Property Owners) \$25,000

SUBTOTAL	\$170,000
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Master Plan/Tier 2 Add \$57,500	Tier 2 additional may be on a site- specific basis (additional grants/private or public funding needed for additional services) \$57,500
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TOTAL	\$227,500
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Revised: 8/29/2016

C:\Users\Kerry\Documents\Industrial Area\[Grant Table 3.xlsx]Sheet1

Industrial Park
Proposed Lots
Contribution Allocations

	Owner	Lot Size (acres)	Lot Size for Calculated Share	Existing Building Size (ft ²)	Potential Building Size (ft ²)	Notes	Share by Lot Size (acres)	Share by Net Building Size (ft ²)	Total Share	% of Total
1	329 Three LLC	0.72	0.72	12,200	15,682		\$83	\$19	\$102	0.4%
2	Central Coast Builders Supply	0.45	0.45	7,500	9,801		\$52	\$13	\$64	0.3%
3	City of Waldport	1.34	1.34	10,525	29,185		\$154	\$102	\$256	1.0%
4	Dahl & Dahl	8.38	8.38	9,230	182,516		\$961	\$951	\$1,912	7.6%
5	Dahl Disposal Services	0.11	0.11	-	2,396		\$13	\$13	\$26	0.1%
6	Dahl, Gene & Shirlee & Leone, Trustees	1.92	1.92	-	41,815		\$220	\$229	\$450	1.8%
7	Dahl, Gene & Shirlee, Trustees	64.28	43.29	3,690	942,815	Open space; storm water mgmt	\$4,965	\$5,152	\$10,117	40.5%
8	Dahl, Gene & Shirley, Trustees	1.34	1.34	-	29,185		\$154	\$160	\$314	1.3%
9	Dahl, Leone & Gene & Shirlee, Trustees	11.41	11.41	-	248,584		\$1,309	\$1,364	\$2,673	10.7%
10	David W. Wood	0.92	0.92	-	20,038		\$106	\$110	\$215	0.9%
11	Gerald Buchko	0.35	0.35	-	7,623		\$40	\$42	\$82	0.3%
12	Glorietta Bay	4.30	4.30	16,000	93,654		\$493	\$426	\$919	3.7%
13	Lee Arce Development Co.	6.25	6.25	-	136,125		\$717	\$747	\$1,464	5.9%
14	Lenard & Carol Olsen	0.35	0.35	3,800	7,623		\$40	\$21	\$61	0.2%
15	Michael Schlosser	0.92	0.92	8,900	20,038		\$106	\$61	\$167	0.7%
16	Northwest Pacific	1.84	1.84	-	40,075		\$211	\$220	\$431	1.7%
17	Pioneer Telephone Co.	1.56	1.56	9,750	33,977		\$179	\$133	\$312	1.2%
18	Robert M. Conway	0.76	0.76	5,100	16,553		\$87	\$63	\$150	0.6%
19	Russell R. Dahl	0.11	0.11	-	2,396		\$13	\$13	\$26	0.1%
20	Schweich Daniel and Carrie	0.68	0.68	-	14,810		\$78	\$81	\$159	0.6%
21	South Lincoln Landfill	32.21	21.62	8,610	470,854	Existing landfill; open space	\$2,479	\$2,536	\$5,015	20.1%
22	South Lincoln Resources	0.92	0.00	-	-	Non-profit	\$0	\$0	\$0	0.0%
23	TJJT	0.37	0.37	-	8,059		\$42	\$44	\$87	0.3%
	TOTALS:	141.49	108.99	95,305	2,373,802		\$12,500	\$12,500	\$25,000	100%

Weighting Factor			0.5	0.5	\$1,087 <<< AVG
Total Funding Requested			\$12,500	\$12,500	\$25,000

####

\\Server\current document\Industrial Area\[Copy of Table 5.1 - Subdivided Lots 20 - 50% .xlsx]Totals

CITY COUNCIL MEETING – September 8, 2016

CITY MANAGER REPORT

1. City Hall Week

The City Council received an email from Coos Bay regarding attending City Hall Week meeting in Coos Bay on September 14th from 9 a.m. – noon. Please contact jmickleson@coosbay.org or 541-269-8912 by September 5th regarding your attendance. I am planning on attending this event.

2. US 20 Construction Update

Attached is a construction update. “Play on the Grade” event October 1st from 1 – 5 p.m.

3. Flood Insurance Rate Maps

FEMA submitted draft FIRMs to the City for review of non-technical items. The City Recorder found some discrepancies in street names, as well as city boundary issues, e.g., annexations. These notes were forwarded to FEMA on September 2nd, before its 30-day deadline.

4. Southworth Creek Water Rights

Staff, legal counsel and GSI Water Solutions are meeting with the State Department of Fish and Wildlife, Water Resources Department, and WaterWatch on September 7th in Salem to discuss WaterWatch’s proposed settlement concepts for Southworth Creek Permit S-30624 extension.

5. Library Director Interviews

We have six candidates for our Library Director, all of them with seemingly good qualities. Interviews are scheduled for September 9th.

6. Place Based Water Planning

The City of Newport is leading a Place Based Planning Project for the mid-coast region, in partnership with the State Water Resources Department. The process will bring together organizations in the area to “discuss common concerns, develop working partnerships, identify resources and challenges, and develop strategies that address the challenges associated with managing and providing water along the coast.” The first meeting is September 29th from 4 – 7 pm at Newport City Hall. Attached is a flyer with more information.

7. Emergency Preparedness

Attached is a media release and other information on events in Lincoln County for National Preparedness Month.

Every three years we are required to update and submit an application to the federal government regarding tsunami and storm readiness. All requirements are being met in Waldport, and the City is renewed through May 2019.

I also attended a State Office of Emergency Management workshop hosted in Lincoln County on the COOP Statewide Software Program roll-out. Erik Rau from OEM provided an overview of the statewide continuity of operations planning (COOP) toolkit, OregonCOOP.com, and the contract that supports it at no cost to cities, counties and tribes.

If you have trouble viewing this email, [click here](#) to view the construction update as a webpage or PDF.



Interim Construction Update 9/1/16

What's New

- U.S. 20 at Pioneer Mountain – Eddyville will be **completely OPEN Labor Day weekend** beginning Friday, September 2 from 5:30 a.m. until 7:30 p.m., Tuesday, September 6. (No closures Friday through Monday nights.)
- Closures will resume at milepost 16.3 on Tuesday, September 6 through Thursday, September 8, 7:30 p.m. – 5:30 a.m.

For Planning

Closure Schedule Changes Coming:

- To maintain the construction schedule, contractors need to adjust closure dates and times.
- Beginning **September 10, Saturday night closures begin**. The highway will be closed at night Saturday, September 10 through Tuesday, September 13, 7:30 p.m. – 5:30 a.m., at milepost 16.3.
- Beginning Wednesday, **September 14 earlier closure times begin**. The highway will be closed at night Wednesday, September 14 and Thursday, September 15, 7:00 p.m. – 5:00 a.m.
- This new closure time schedule will continue Saturdays through Thursday nights thereafter, 7:00 p.m. – 5:00 a.m.
- The highway will remain open on Fridays.

SAVE THE DATE

Play on the Grade

Saturday, October 1, 2016 1-5 p.m.

Join the Highway U.S. 20 community and experience our new section of this historic roadway before it opens to traffic. Bring your friends and family to walk, run, roll, or bike on the nearly-ready-open road to key points of interests along the way. ODOT experts will be there to talk with you about the engineering challenges and solutions, wildlife habitat connections, landscaping, and more as the Pioneer Mountain to Eddyville Project comes to completion.

Look for additional event information next week.



Have Three Minutes to Help Us Improve?

The U.S. 20 Pioneer Mountain - Eddyville Project has had a huge impact on travel plans this summer. We're always trying to improve how we share information with you - not only in how we get it to you, but how we get it from you as well. Please share your thoughts and experiences.

[Take Survey Now](#)

Please help us to get the word out!

Forward this email to your networks and invite them to sign up.

[Join Construction Update](#)

[Join Twitter Update](#)

[Visit us20pme.com](#)

Oregon Department of Transportation
644 A Street, Springfield, OR 97477
Email: angela.beersseydel@odot.state.or.us
Phone: 541-726-2442

Creating a safe, smooth, and scenic connection



Oregon Department of Transportation | 644 A Street, Springfield, OR 97477

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Sent by info@us20pme.org in collaboration with



Mid-Coast Water Planning Partnership



The Mid-Coast Water Planning Partnership will examine water needs in Oregon’s Mid-Coast region. Our regional water suppliers include small cities, unincorporated community water districts, tribal communities, and commercial industry near the Pacific Ocean. Our area is home to a vibrant fishing, tourist, and forest products economy, and an ecosystem that supports diverse populations of fish and wildlife. We will be working to develop regional solutions to provide adequate water supplies for water systems and local industry, while providing adequate flows and water quality for fish, wildlife, and our environment. *You are invited join the Partnership and be a part of this important conversation.*

Our water challenges

The need for reliable, quality water supplies is critical. The Mid-Coast Region has unique water challenges that, if left unaddressed, will intensify over time:

- Over the last few years some water suppliers have struggled to meet existing demands. A 2008 study found that, given current supplies and infrastructure, several water suppliers may be unable to meet demand by 2020.
- Low summer stream flow and limited water storage create pressures to meet the needs of communities for drinking water while maintaining stream flows critical for fish, recreation and industry.
- Many of our communities and their water systems are vulnerable to natural hazards, such as impacts of drought, earthquakes and tsunamis and are not prepared to respond to such events.

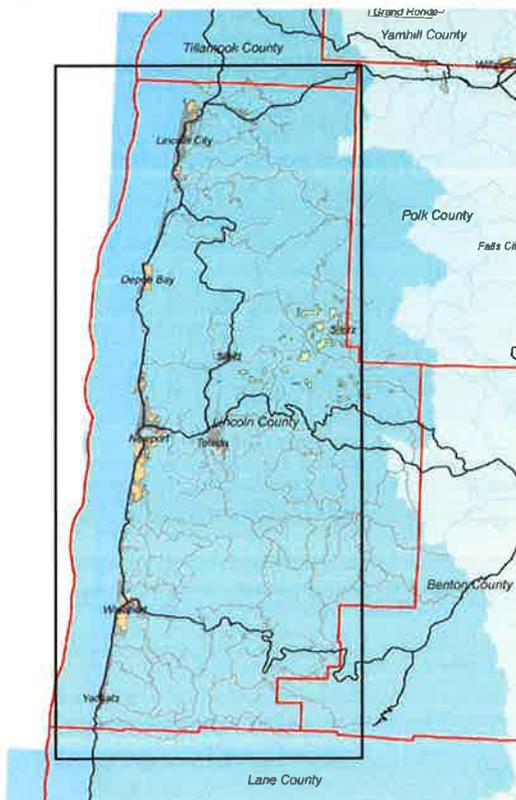
Defining our water future

These challenges require a coordinated approach since no one entity can address them alone. In June 2016, the City of Newport received a grant from the Oregon Water Resources Department (OWRD) to convene a collaborative, integrated water planning effort. This presents a timely opportunity to be proactive about understanding and meeting our current and future water needs.

Over the next three years, the Partnership will explore strategies to:

- Replace aging infrastructure, improve conservation, enhance regional water supply options, and more effectively share water.
- Relieve pressure on rivers, streams, and tributaries while meeting the water needs for coastal communities and industries.
- Create redundancies in our system so we are more resilient to drought, storms, and other natural vulnerabilities.
- Create a learning and action network for small water providers who are often most vulnerable to environmental and regulatory challenges.

Mid-Coast Region



Join the conversation - help us define our water future

Kick-off Meeting: Thursday, September 29, 2016 from 4-7pm at
Newport City Council Chambers – RSVP at: <http://bit.ly/mwpprsvp>

Mailing List: <http://bit.ly/mwpplist>

Website: www.midcoastwaterpartners.com

More information about the Mid-Coast Water Planning Partnership

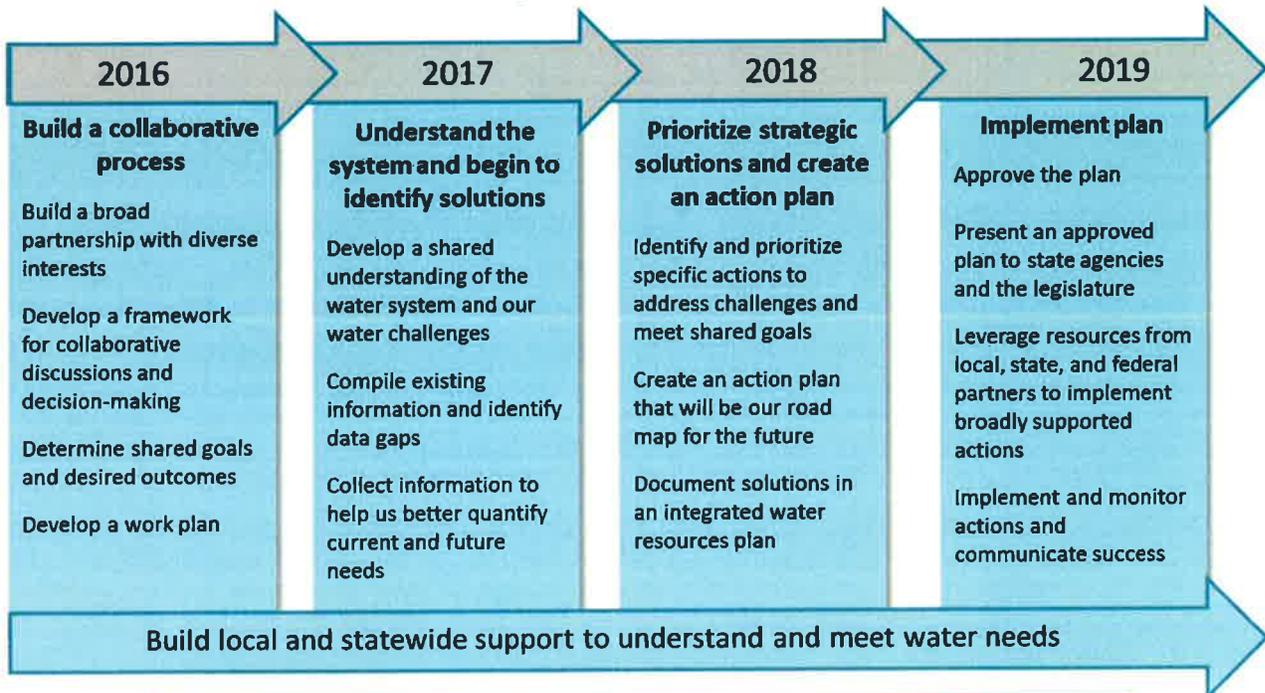
A new approach

The Mid-Coast Region is one of four areas that is piloting a new approach to water planning with the Oregon Water Resources Department. This approach, which was recommended in Oregon's 2012 [Integrated Water Resources Strategy](#), encourages integrated planning at larger scales and gives communities a greater voice in determining their water future. During the pilot phase, local groups will partner with state agencies to test a set of [draft planning guidelines](#), identify best practices, and develop a plan for action. In addition to providing a road map for the Mid-Coast, our local plan will inform future updates to Oregon's statewide strategy. This is our opportunity to chart a new path forward for our community and the state.

The benefits of partnership

- Develop a common understanding of our water issues through discussion, sharing of knowledge, and examination of best practices.
- Coordinate current and future information gathering and data collection efforts.
- Develop a shared vision for our water future.
- Build cooperative relationships and foster networking among diverse water interests.
- Create a forum to explore innovative, out-of-the box solutions to collective problems.
- Coordinate and leverage local and statewide resources to achieve the best results for our region.

Planning Timeline and Actions



- Contact the Conveners -

Timothy Gross
 City of Newport
 Public Works Director/City Engineer
t.gross@newportoregon.gov
 541-574-3369

Harmony Burrigh
 Oregon Water Resources Department
 Planning Coordinator
harmony.s.burrigh@wrdd.state.or.us
 541-846-8863



OFFICE OF THE SHERIFF

Sheriff Curtis L. Landers
225 W. Olive Street
Newport, Oregon 97365
(541) 265-4277
Fax (541) 265-4926

MEDIA RELEASE

FOR IMMEDIATE RELEASE

Date: August 31, 2016
Contact: Jenny Demaris, Emergency Manager
vdemaris@co.lincoln.or.us
(541) 265-4199 Office

SEPTEMBER IS NATIONAL PREPAREDNESS MONTH – Don't Wait. Communicate. Make Your Emergency Plan Today.

(08.31.16- Lincoln County)

Lincoln County Sheriff's Office and Lincoln County Public Health is pleased to promote and locally support the 2016 National Preparedness Month (NPM) campaign. Citizens and businesses are encouraged to take action now – make a plan with your community, your family, and for your pets. Plan how to stay safe and communicate during the disasters that can affect your community.



Several activities and events are scheduled throughout the month to promote preparedness efforts and personal resiliency leading up to National PrepareAthon! Day, which culminates National Preparedness Month on September 30.

Lincoln County Sheriff's Office will sponsor the national weekly focused themes through social media, radio and media releases as follows:

- Week 1: September 4-10th Preparing Family and Friends – Communication Plan
- Week 2: September 11-17th Preparing Through Service
- Week 3: September 18-24th Individual Preparedness
- Week 4: September 25-30th Lead up to National PrepareAthon! Day (Sept. 30th)

Lincoln County Sheriff's Office

[facebook](#) | [twitter](#) | [website](#) | [emergency alerts](#) | [contact/newsbites](#)

In addition to the promotion of the weekly themes Lincoln County Sheriff's Office, public, private and community partners are sponsoring Cascadia Community Presentations and participation in the annual emergency readiness fair – Get Ready Lincoln County.

Cascadia Community Presentations:

- **Saturday, September 17, 2016**
9:30 am – 11:30 am, City of Lincoln City
North Lincoln Fire, St. Clair Station
4520 SE Hwy 101, Lincoln City
*Public Readiness Fair Follows 11:00 am-3:00 pm
- **Thursday, September 22, 2016**
6:00 pm – 7:30 pm, Newport
Newport City Hall – Council Chambers
169, SW Coast Hwy, Newport, OR 97365

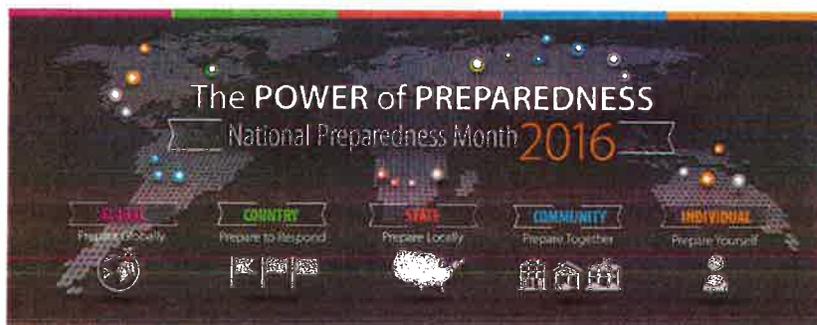
Get Ready Lincoln County, Emergency Readiness Fair:

Saturday, September 17, 2016
11:00 am-3:00 pm, City of Lincoln City
North Lincoln Fire, St. Clair Station
4520 Hwy 101, Lincoln City

Local media outlets and community partners are encouraged to go to the National Preparedness Month website and utilize the available social media, print and video/audio outreach tools to assist in promoting these preparedness efforts. <https://www.ready.gov/psa-multimedia>

Ready.Gov
<http://www.ready.gov/september>

Center for Communicable Disease (for health partners)
<http://www.cdc.gov/phpr/npm/index.htm>



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Lincoln County Sheriff's Office

Media Release

August 31, 2016

Page 3 of 3

Respectfully submitted,

Virginia "Jenny" Demaris

Emergency Manager

Lincoln County Sheriff's Office

225 W. Olive St., Newport, Oregon 97365

vdemaris@co.lincoln.or.us

[\(541\) 265-4199](tel:(541)265-4199) Office

Lincoln County Sheriff's Office

[facebook](#) | [twitter](#) | [website](#) | [emergency alerts](#) | [contact/newsbites](#)



Cascadia Subduction Zone Earthquake Community Presentations

Community members are invited to attend one of the Cascadia earthquake preparedness presentations offered in September.

These educational presentations are provided as part of our National Preparedness Month campaign promoting community resiliency through personal preparedness.

These presentations provide an opportunity to:

- Learn more about our earthquake fault
- Gather ideas and tips to prepare
- Ask questions to strengthen your resiliency



To ensure your family is better prepared for the next disaster, complete the easy-to-do activities in our Prepare in a Year Booklet, <http://www.co.lincoln.or.us/emergencymanagement/page/prepare-year>



Saturday, September 17, 2016

- 9:30 am – 11:30 am, City of Lincoln City
North Lincoln Fire, St. Clair Station
4520 SE Hwy 101, Lincoln City
**Public Readiness Fair Follows 11:00 am-3:00 pm*

Thursday, September 22, 2016

- 6:00 pm – 7:30 pm, Newport
Newport City Hall – Council Chambers
169, SW Coast Hwy, Newport, OR 97365

**No RSVP Needed –
Free Preparedness Training**

For more information contact:
Jenny Demaris, Emergency Management
Lincoln County Sheriff's Office
(541) 265-4199, vdemaris@co.lincoln.or.us



GET READY

LINCOLN COUNTY

IF A NATURAL DISASTER HITS OUR AREA,
**WE WANT YOU AND YOUR
FAMILY TO BE PREPARED**

JOIN US SATURDAY, SEPTEMBER 17

for an event that will help you **GET READY**. NW Natural will be joined by local emergency groups to give away safety items and a **FREE** lunch.

The first 100 families will also receive
FREE RED CROSS EMERGENCY TUBES.



Saturday, September 17, 2016

11 a.m. to 3 p.m.

St. Clair Station (FORMERLY TAFT STATION)
4520 SE Highway 101, Lincoln City

COME EARLY FOR THE COMMUNITY CASCADIA PRESENTATION AT 9:30 A.M.

Presented by Virginia "Jenny" Demaris Emergency Manager,
Lincoln County Sheriff's Office.



Public Works Department Report for the month of August 2016

Water Treatment Plant

Plant Production:	<u>9.07</u>	MG
Rainfall:	<u>.2</u>	inches

Wastewater Treatment Facility

Effluent Flow:	<u>3.7</u>	MG
Rainfall:	<u>.2</u>	Inches

Public Works Dept.

Alarm call outs:	<u>2</u>
Locates:	<u>10</u>
Sewer plugs:	<u>1</u>
Water service installations:	<u>2</u>
Sewer connections:	<u>3</u>
Water Leaks:	<u>1</u>

Department General Overview

The City of Waldport Public Works Department is diligently working to protect the public's investment by identifying issues, maintaining our infrastructure, and targeting resources to minimize long term costs while providing the best possible service to our citizens.

Our Public work crews have been mowing, painting, cleaning, fixing, and solving problems throughout the last month. In addition to our normal duties, we joined the Library to house their Annual Book Sale in our new shop.

The plant operators are doing an exceptional job operating and maintaining the city's water treatment facilities. Both plants are continuing to do a great job processing terrific standards in water quality. The DEQ is still currently writing a new NPDES permit for the wastewater plant. The wastewater operators are working on getting their Lagoon dredged sometime soon. The water plant is working with Civil West Engineering to plan a viable fix to the Backwash problem that exists in our water plant.

Administratively, we have been working very hard planning our future direction as a successfully operating department. Other projects that we are working on include the first phase of the Water Plant study, continuing to update our operational Beehive mapping software, evaluating some of our deficiencies in our infrastructure, and working on our emergency operations center.