

For: Monday, June 13, 2016, City Council Meeting

Advance Packet Information

Included in this packet is documentation to support the following Agenda items:

ORDINANCES

1. Ordinance 16-O-759, amending Brookings Municipal Code Section 12.25.020 Public Parks and Recreational Areas, Exceptions, adding an exemption to park operating hours for the Mill Beach Access. [City Manager, Pg. 2]
 - a. Ordinance [Pg. 4]
 - b. Chapter 12.25.012 of the Brookings Municipal Code [Pg. 5]
 - c. Letters from Mill Beach area residents [Pg. 7]
2. Ordinance 16-O-760 to implement revisions to the City of Brookings Comprehensive Plan Goal 11, Public Facilities and Services and adopting a new Public Facilities Plan. [PWDS, Pg. 11]
 - a. Ordinance [Pg. 13]
 - b. SDMP Executive Summary [Pg. 15]
 - c. Goal 11, Public Facilities and Services [Pg. 19]
 - d. Public Facilities Plan [Pg. 24]

*Obtain Public Comment Forms and view the agenda and packet information on-line at www.brookings.or.us, or at City Hall. Return completed Public Comment Forms to the City Recorder before the start of meeting or during regular business hours.

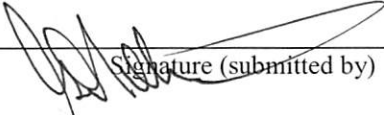
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CITY OF BROOKINGS

COUNCIL AGENDA REPORT

Meeting Date: June 13, 2016

Originating Dept: City Manager



Signature (submitted by)

City Manager Approval

Subject: Ordinance 16-O-759 Amending Brookings Municipal Code Section 12.25.020 adding an exemption to park operating hours for the Mill Beach Access.

Recommended Motion:

Motion to adopt Ordinance 16-O-759 amending Brookings Municipal Code Section 12.25.020 adding an exemption to park operating hours for the Mill Beach Access.

Background/Discussion:

The City Council discussed the application of Brookings Municipal Code Section 12.25.020 to the Mill Beach Access at its meeting of May 9. BMC 12.25.010 provides as follows:

Except as provided in BMC [12.25.020](#), all city-owned public parks and city-owned public recreational areas located within the city of Brookings shall be open for use by the public from one-half hour prior to sunrise to one-half hour past sunset. [Ord. 94-O-505 § 1.]

Staff received general direction to return to the City Council with an Ordinance lifting this restriction as to the Mill Beach Access. The concept of installing a gate prohibiting vehicle access to the parking area adjacent to the beach and/or applying less restrictive hours while prohibiting overnight use of the parking area were also discussed. The upper section of the road serving Mill Beach Access is also the access road for the adjacent condominiums, and the lower section of the road also serves as an emergency fire access for the adjacent condominiums. There is no provision for a turn-around area past the condominium access, other than the beach parking lot. During the May 9 discussion, there did not appear to be a general direction concerning selecting alternative closure hours.

Ordinance 16-O-759 would add a provision in the Exemptions section of Chapter 12.25 providing that the Mill Beach Access would remain open for public use 24-hours/day, year round.

With the proposed change, other provisions of BMC 12.25.012 would remain in effect in the parking and picnic area, including provisions prohibiting camping, fires, amplified sound and skateboarding. These provisions would not apply to the adjacent beach.

Staff recommends retaining the current provision. The Mill Beach access road is a narrow, winding road with no lighting, presenting a liability exposure risk for vehicles and pedestrians using the road at night. The current “dawn to dusk” restriction also assists in discouraging overnight transient use of the parking lot and picnic area.

Attachment(s):

- a. Ordinance 16-O-759
- b. Brookings Municipal Code Chapter 12.15.012
- c. Letters from Mill Beach area residents

IN AND FOR THE CITY OF BROOKINGS
STATE OF OREGON
ORDINANCE 16-O-759

IN THE MATTER OF ORDINANCE 16-O-759, AN ORDINANCE AMENDING BROOKINGS MUNICIPAL CODE SECTION 12.25.020 PUBLIC PARKS AND RECREATIONAL AREAS, EXCEPTIONS, ADDING AN EXEMPTION TO PARK OPERATING HOURS FOR THE MILL BEACH ACCESS.

Sections:

- Section 1. Ordinance identified.
- Section 2. Amends Section 12.25.020

The City of Brookings ordains as follows:

Section 1. Ordinance Identified. This ordinance amends Section 12.25.020 of the Brookings Municipal Code.

Section 2. Amends Section 12.25.020 : Section 12.25.020 Public Parks and Recreational Areas, Exceptions is amended to read as follows:

The city manager may, upon prior application, permit use of a city-owned public park or city-owned public recreational area at times other than the times that the premises are open for use by the public. [Ord. 94-O-505 § 2.]

The city manager has designated a permanent exemption to park operating hours for the Mill Beach Access road which will be open and available for public use 24 hours/day, year-round.

First Reading: _____ Passage: _____
Second Reading: _____ Effective Date: _____

Signed by me in authentication of its passage this _____, day of _____, 2016

ATTEST:

Mayor Ron Hedenskog

City Recorder Teri Davis

12.25.012 Rules and regulations specific to city-owned parks.

A. The following activities and uses are prohibited in all city parks, except by city park employees, volunteers or contractors in the performance of authorized maintenance or construction:

1. Camping.
2. Parking or use of motorized vehicles, other than wheelchairs, on walkways, landscaped areas, natural vegetation areas, playgrounds and sports fields, except for authorized maintenance or the purpose of set-up or tear-down of an event.
3. Possession or use of fireworks or explosives; unlawful possession or use of firearms.
4. Throwing of rice or seeds, including bird seed.
5. Damage to or removal of any vegetation.
6. Modification or painting of any structure, equipment or furniture.
7. Bicycles, skateboards, skates or roller blades, except in designated areas.
8. Unleashed dogs, except in designated areas.
9. Failure to remove animal excrement by the animal owner.
10. Attaching signs to any city sign post, trees or other vegetation.
11. Any use of the park for an organized event without having first obtained an approved park use permit. An organized event includes weddings, memorials, athletic activities, concerts, holiday displays, picnics where the host wishes to reserve a specific area, use of the snack shack, bandshell or Capella, and the conduct of business activities.
12. Amplified sound and/or music at a level that is not contained within the immediate area of the activity, subject to BMC 8.15.080.
13. Placement of any sign without first having obtained approval by the city manager or his designee.
14. Failure to remove signs within two hours of the conclusion of an event.
15. Fires, except fires in camp stoves, portable barbeques or fireplaces provided for such purposes.

16. The use of camp stoves or portable barbeques except in designated picnic areas.
17. Unattended fires, camp stoves or portable barbeques.
18. Leaving the location of a fire until the fire is completely extinguished with no hot coals remaining.
19. The use of amplified sound at Bankus Park.
20. The use of Bankus Park for more than single-day events, except as approved by the parks and recreation commission.

B. Penalties and Fines.

1. The fine for a first offense under subsection (A) of this section is \$50.00, a second violation is \$100.00, and any third or subsequent violation shall be the maximum allowed under Chapter 1.05 BMC, General Penalty.
2. Upon a third violation/conviction, the offending person may be prohibited from using or entering all city-owned parks for a period of one year.
3. If a person is given a citation for violating subsection (A) of this section, he or she must immediately cease the offending conduct. If the person given the citation continues the offending use or activity, he or she will be subject to additional citations and/or immediate trespass under ORS 164.245. [Ord. 13-O-708 § 2; Ord. 10-O-667 § 2.]

Good evening Mayor, City Manager & City Councilmen.

My name is Anicia Peltzer. My husband, Vince, and I live at 270 Allen Lane, which is located on the NW corner of Allen Lane and Mill Beach Rd. My husband (who had to be out of town today) and I are very much opposed to this proposal. It will compound problems that exist today but have remained manageable thanks to the consistent and fast response we receive from our city police when problems arise. Everyone we've spoken to agree that problems and illegal activities will escalate. We consider this a matter of health and safety versus recreation.

The beach itself is always accessible but opening up parking 24/7 will make it too easy to have massive night parties, consuming drugs and alcohol, illegal camping, public urination, burglaries and drunk drivers. We will have people peeling out, screeching tires throughout the wee morning hours. That happens during the day but at least we're awake.

What's bothersome is our understanding that the proponents of this exemption are disregarding their staff's recommendations. State beaches are never closed to the public so access to the beach is not the issue. There is other, maybe less convenient, parking 1 block away. With a passage of this amendment we will see our neighborhood besieged with more reckless, often drunk drivers. Transients will "flock" to the parties on the beach. My neighbors and I already deal with transients leaving trash, sleeping in our yards, theft, public urination and the list goes on.

Since developing the parking lot the "No Parking" signs were removed on the creek side of the road. During the day it's often lined with parked cars thus reducing the road from two lanes to one lane. There is a steady stream of foot traffic throughout the day and evenings who often have little children, babies in strollers and dogs with them.

What liability will the city incur when there's an emergency such as a fire at the Macklyn Cove condos with evacuees and first responders in each other's way as there's no open fire lane? Not only should this proposal be shelved but that the city reinstate the "No Parking" on both sides of the road down to the beach itself. It's ridiculous to think that road can accommodate foot traffic, 2 lanes of traffic and yet provide a fire lane in case of an emergency.

My husband on a number of occasions has seen vehicles drive as far as the Condo entry gate and rather than turn around put their car or truck in reverse and back up all the way to our intersection and without stopping swerve backwards onto Sandy Court before leaving.

If the goal is to make the beach accessible to allow families to gather, Bar-B-Que and have family time after dark that goal will likely backfire. Instead, we and our neighbors are sure the parties, drug activity and camping will escalate and those same families will not want to be on Mill Beach after dark. This proposal will lead to things often getting out of hand and this neighborhood will become much more reliant on police intervention.

Please answer one question. Was the Chief of Police and Fire Captain a part of the "staff" involved with the the city staff recommendations?

Thank you for the opportunity to express our issues and concerns for the safety our our property, friends and neighbors.

Anicia Peltzer

A handwritten signature in blue ink that reads "Anicia Peltzer". The signature is written in a cursive style with a long, sweeping underline.

Vince Peltzer

A handwritten signature in blue ink that reads "Vince Peltzer". The signature is written in a cursive style with a long, sweeping underline.

270 Allen Lane
Brookings, OR 97415
541-217-1031

May 21, 2016

City of Brookings
898 Elk Drive
Brookings OR 97415

HAND DELIVERED

Dear Friends:

The Macklyn Cove Homeowners Association is aware of an effort to expand beach hours/parking at Mill Beach.

We, (along with the City Staff) are opposed to the expansion. All of us, residents, taxpayers, and voters in the neighborhood are concerned about the negative impacts of traffic, road, maintenance, public safety and liability.

City Staff is overburdened with an ability to enforce existing rules and the road is currently in a state of disrepair.

We are 100 percent opposed to expanding the hours.

Expanding access without control or enforcement is not helpful to those of us who live and work here, the taxpayers, voters and citizens of this Community.

The Macklyn Cove Homeowners Association:

Steve and June Podesta
Penny Lassett
Bob and Leslie Mulford
Corrine Gist (Sills) and David Sills
James and Karin Thompson
Michael and Benita Robinson
Paul and Mary Alice McReynolds
Al and Marilyn Bruner
Rich and Barb Ruppert
Yvonne Dunn (Rigotti) and Gary Rigotti
Arun and Regina Kochar
Walter and Mary Ciceric
Geoff and Sharon Morneau
Caroline Capitano

Contact Information:
Macklyn Cove Homeowners Association
c/o 937 Chetco Avenue
Post Office Box 7500
Brookings OR 97415
541-469-7400

City of Brookings:
Council Meeting May 23, 2016
Re Motion to adopt ordinance 16-0-759

May 23, 2016

Dear Mayor, City Mgr & Councilmen,

I am here this evening to ask your consideration re the matter of changing the hours of permitted access to Mill Beach. I have lived on Sandy Lane for nearly 13 happy years. There have been a few issues with unwelcome people coming up from the beach at night, trespassing onto my property, and others asking for money; these incidents were handled without any serious consequences. But, I am elderly, live alone, and the idea of allowing unrestricted after-dark & overnight use by some of the people this would attract is frightening to me. It will be an open door for all sorts of disturbing problems to those of us living in such close proximity to the beach.

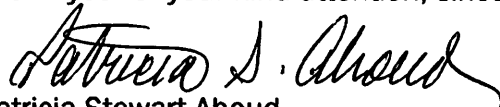
Also, I'm thinking the fire lane on Macklyn Cove Rd, that is a necessity for the condos, will be blocked by parked cars, as it often is, even in daylight hours on weekends; this would be an added threat to those living there.

The improvements that have been made to Mill Beach are greatly appreciated and enjoyed by many of us. It's a joy to see the young families heading down to the beach with the kids, the dog and a picnic basket, and others with a fishing pole or paddleboard, for a fun day.. that's what it's supposed to be all about, and we're grateful for it.

However, with these new proposed hours, that's not who will be on the dark beach; rather it will be an open invitation to any & all who want darkness for whatever activity they indulge: loud parties, heavy drinking, drugs— and certainly, those who will use it as a free campground to inhabit 24 hours a day, if they so choose. The unsanitary conditions that will surely follow will make it unsafe for anyone wishing to picnic.. and even for children to play there.

It's a sad reality.. but it is our reality. Please consider all of us who will bear the brunt of such an unwise change to our peaceful neighborhood.. our home.

Thank you for your kind attention, sincerely,



Patricia Stewart Aboud
1102 Sandy Lane
Brookings, OR 97415
541-412-7188

CITY OF BROOKINGS

Council Agenda Report

Meeting Date: June 13, 2016


Public Works Development Services Director


City Manager Approval

Originating Dept: PWDS

Subject: An Ordinance adopting revisions to the City of Brookings Comprehensive Plan Goal 11, Public Facilities and Services and adopting a new Public Facilities Plan.

Recommended Motion: Motion to adopt Ordinance No. 16-O- 760 to implement revisions to the City of Brookings Comprehensive Plan Goal 11, Public Facilities and Services and adopting a new Public Facilities Plan.

Financial Impact: Estimated cost of \$11.4 million dollars projected over the next 10 years for storm water projects listed in the master plan.

Background/Discussion:

Although Master Plans are developed to assess needs over a 20 year time period, it is prudent to review them on a 5 year schedule to determine that the assumptions used in their development continue to be viable. The last update to the Storm Drainage Master Plan (SDMP) was done in 2008 by former City Engineer, HGE.

The purpose of the SDMP is to provide guidance for the following:

- Identifying potential improvements and management options
- Prioritize the repair of aging infrastructure
- Address current sizing needs
- Serves as a planning document to meet long term growth needs within the City
- Address regulatory requirements for health, sanitation and security
- Identifying funding options for financing

Adoption of the revised Public Facilities and Services Plan adopts the updated SDMP by reference. An updated SDMP is necessary for eligibility for Federal Disaster Funding as well as for other Agency funding opportunities.

Revisions have been made to the Public Facilities Plan and Goal 11, Public Facilities and Services of the Brookings Comprehensive Plan to reflect the information from the SDMP. The Executive Summary of the SDMP is provided as Attachment B of this report. The full document is available at City Hall and can be found on the City's web page as well.

A hearing on this matter was conducted by the Planning Commission on May 3, 2016. The Commission noted several scrivener's errors and inconsistencies in the plan but nothing that would alter or impact the recommendations contained therein. They recommended approval of the plan after implementation of the changes.

Policy Considerations:

In keeping with Council Goal of maintaining updated Master Plans to facilitate long range planning of maintenance and construction of City infrastructure.

Attachment(s):

- a. Ordinance No. 16-O- 760
- b. SDMP Executive Summary
- c. Goal 11, Public Facilities and Services
- d. Public Facilities Plan

IN AND FOR THE CITY OF BROOKINGS

STATE OF OREGON

ORDINANCE 16-O- 760

IN THE MATTER OF ORDINANCE 16-O-760, AN ORDINANCE ADOPTING REVISIONS TO THE CITY OF BROOKINGS COMPREHENSIVE PLAN, GOAL 11, PUBLIC FACILITIES AND SERVICES AND ADOPTING A NEW PUBLIC FACILITIES PLAN. THIS EFFECTIVELY REPEALS THE PREVIOUS PUBLIC FACILITIES PLAN CREATED BY ORDINANCE 16-O-755 AND ALL SUBSEQUENT REVISIONS.

Sections:

- Section 1. Findings
- Section 2. Amendments
- Section 3. Severance Clause
- Section 4. Effective Date

The City Council for the City of Brookings ordains as follows:

Section 1: Findings

1. Goal 11 of the Brookings Comprehensive Plan must be amended to reflect the updated Storm Drainage Master Plan. Amended Goal 11 is attached hereto and incorporated by reference.
2. The Public Facilities Plan must be updated to reflect the updated Storm Drainage Master Plan. The updated plan is attached hereto and incorporated by reference.
3. Staff sent a 35 day notice to DLCD as required under ORS 197.610 for post acknowledgment plan amendments for the proposed changes to the Comprehensive Plan and Public Facilities Plan.
4. Staff conducted a public hearing before the Brookings City Planning Commission May 03, 2016. The Commission recommended approval to the City Council.
5. Following public notice, as required by law, the Brookings City Council conducted a hearing on the proposed amendments on June 13, 2016 at 7:00 p.m. at the Brookings City Hall. Approval was given to the Comprehensive Plan and to the Public Facilities Plan that are attached hereto and incorporated by reference.

Section 2: Amendments

The City of Brookings Comprehensive Plan (Ordinance No. 16-O-755, previously the most recent revision) is amended as shown by the attached changes in the Comprehensive Plan and by adopting the attached Public Facilities Plan.

Section 3: Severance Clause

If any section, subsection, sentence, clauses or phrases of this ordinance is, for any reason held to be unconstitutional or otherwise invalid, such decision shall not affect the validity of the remaining portions of this ordinance.

Section 4: Effective Date

This ordinance shall take effect 30 days following its passage.

First Reading: _____ Passage: _____
Second Reading: _____ Effective Date: _____

Signed by me in authentication of its passage this _____, day of _____, 2015

ATTEST:

Mayor Ron Hedenskog

City Recorder Teri Davis

Executive Summary

ES.1 INTRODUCTION

The City of Brookings is located in Curry County on the Southern Oregon Coast. Brookings' current population is 6,450 persons (Portland State Universities Population Research Center, 2013). A large portion of storm drain infrastructure within city limits is on private property, and is not maintained by the City. Storm water collected within private development and the city is typically conveyed through a series of constructed open channels or piping and is discharged to the nearest natural water body (local streams, Chetco River, Pacific Ocean). Portions of the infrastructure are old and have exceeded their life expectancy.

The purpose of this Storm Drainage Master Plan is to provide a comprehensive plan to assist the City in the management of its storm water infrastructure for the next 20 years. The Master Plan will identify piping deficiencies due to sizing, age, and other factors. This study will utilize a previous Stormwater Engineering Study (HGE, 2008) as a basis for renewed evaluation. The City has experienced a significant amount of damage since the previous study, which necessitates an updated plan for the future.

ES.2 EXISTING SYSTEM

The majority of the storm drain infrastructure for the city of Brookings is located along Highway 101 and in the downtown area. The infrastructure crossing Highway 101 is owned and maintained by ODOT. A large portion of storm drain infrastructure within city limits is on private property, and is not maintained by the City. The existing storm drain system includes approximately 23 miles of gravity piping that range in size from 8 inches to 60 inches in diameter, and is both publicly and privately owned. Pipe materials typically consist of high density polyethylene (HDPE), polyvinyl chloride (PVC), reinforced concrete pipe (RCP), and corrugated metal pipe (CMP). A significant portion of the City's stormwater conveyance system consists of natural and constructed open channels.

For the purposes of this Storm Drainage Master Plan, the study area was divided into thirty-eight drainage basins, based on topography and the City's storm drain infrastructure. Large basins were further divided into smaller subbasin areas to increase the level of accuracy of the computer modeling. Additional basin information can be found in Section 6 of this study.

ES.3 IDENTIFICATION OF DEFICIENCIES

For storm drain infrastructure design, a storm with a recurrent interval of 25 years was selected as appropriate for city streets and neighborhoods. The rainfall total for a 25-year storm is 8

inches in a 24-hour period. A 50-year storm event was applied to all drainage facilities intersecting or passing through Highway 101. The rainfall total for a 50-year storm is 9 inches in a 24-hour period.

For purposes of this study, the Rational Method and the Soil Conservation Service Runoff Method (SCS TR-20 model) are used to estimate peak runoff values for existing and future development conditions. Section 6 of this Master Plan summarizes the results for stormwater runoff calculations for the city of Brookings. Data for calculations for basin and subbasin runoff is provided in Appendix D.

The city of Brookings provided a map of problem areas that they patrol during rain events. Most of these problem areas are storm water inlets, catch basins, or abatement issues that the City enforces through notification. The City spends a significant amount of maintenance hours patrolling these areas. A “Hot Spot” map that the City uses for patrol is located in Appendix E.

A wide variety of deficiencies were observed in television inspection tapes of the existing storm water system. Each of the deficiencies has the potential to contribute significantly to the problems within the city of Brookings storm collection system. Pipe inspection results are described in Section 6.5.

ES.4 RECOMMENDED PLAN

Section 7 of this Master Plan identifies multiple projects that address deficiencies within the storm drainage system. The project priorities are ranked from Priority 1 through Priority 3. Each priority group is defined as follows:

Priority 1: These are the highest priority projects that should be undertaken as soon as adequate funding is available. It is recommended that these projects be undertaken within the next five years with highest projects on the list to be addressed in the next year or two.

Priority 2: While not of the highest priority, these projects should be in the City’s capital improvement planning window beyond the five-year horizon. As Priority 1 projects are completed, Priority 2 projects should be moved to Priority 1 status. System degradation or failures, project coordination, or other occurrences may require the movement of Priority 2 projects to Priority 1 status ahead of schedule. New projects that are developed that are not critical should be grouped in Priority 2 until funding is available.

Priority 3: Priority 3 projects are either of low priority or are dependent on development. If development in an area necessitates the implementation of a Priority 3 improvement, the project should be moved to Priority 1 status, assuming that adequate funding is available. Some projects may remain in Priority 3 indefinitely if the need for the project or the development requiring it never arises.

Table ES.4.1 includes a summary of project costs. The project numbers with an asterisk indicate a project is on private property or within ODOT rights-of-way. Detailed cost estimates for each project were developed for each site improvement and are located in Appendix D.

**TABLE ES.4.1
PROJECT COSTS AND PRIORITIES**

Project Number	Description	Cost (Dollars)	Priority
1A*	Elk Drive to Ross Road right-of-way	\$232,700	1
1B	Ross Road right-of-way to north side of Highway 101	\$204,190	1
1C*	North side of Highway 101 to south side of McDonald's	\$356,910	1
1D	South side of McDonald's to Mill Creek Pond	\$520,080	1
2A*	Napa Auto Parts Storm Improvements	\$195,210	1
2B*	Highway 101 crossing at Napa Auto Parts	\$75,480	1
3	Macklyn Creek near the Pacific Ocean	\$11,170	1
4	Ransom Avenue bound by Macklyn Creek & Kevin Place	\$260,490	1
5A*	Floral Drive	\$247,100	1
5B	Railroad Street, Hazel Street and Del Norte Lane	\$1,713,510	1
6	Marina Drive and Old County Road	\$26,460	1
7	Fifth Street and Ransom Avenue	\$76,660	1
8	Ransom Avenue, bound by Third St. & Highland Avenue	\$38,150	1
9	Tanbark Avenue & Railroad Street	\$617,840	1
10	North side of City Hall	\$60,040	1
11	Highway 101 and Mill Beach Road	\$125,250	1
12	Hemlock Street bound by Fern Avenue and Willow Street	\$10,705	1
13	Ransom Avenue and Highway 101	\$38,660	1
14A	Memory Lane and Buena Vista Loop	\$151,450	1
14B*	Memory Lane, west of Cypress Street	\$83,060	1
14C	East side of Buena Vista Loop	\$61,960	1
15	Old County Road bound by Lundeen Road & Fir Street	\$168,090	1
16	Old County Road Reroute	\$1,310,210	2
17	Mendy Street, Art Street, and Pacific Avenue	\$476,990	2
18	Easy Street, west of Pioneer Road	\$108,640	2
19	Alder Street bound by Birch Street and Memory Lane	\$284,010	2
20*	429 & 431 Buena Vista Loop	\$43,220	2
21A	Oxford Street and Maple Street	\$129,870	2
21B	Oxford and Maple St. intersection to Matot St. dead end	\$97,460	2
22*	Highway 101 bound by Ross Road and Hillside Avenue	\$33,510	2
23*	Highway 101 and Fleet Street	\$13,820	2
24	Mill Beach Road, bounded by Railroad St. & Smith Dr.	\$132,300	2
25	Arnold Lane, Rowland Lane, & Smith Drive	\$751,310	2
26	Third Street, bound by Ransom Avenue and Hassett St.	\$26,945	2
27	East Manor Park Outfall	\$110,470	2
28	Ransom Avenue, bound by Paradise Lane & Second St.	\$104,810	2
29	Seventh Street & Hassett Street	\$251,430	2
30	King Street bound by 715 Railroad St. and Wharf Street	\$204,030	2
31	Ransom Avenue, bound by Kevin Place and Pioneer Rd.	\$250,720	2

**TABLE ES.4.1
PROJECT COSTS AND PRIORITIES continued**

Project Number	Description	Cost (Dollars)	Priority
32	Second Street, west of Bud Cross Park	\$6,180	3
33*	Highway 101, east of Napa Auto Parts	\$92,750	3
34	Easy Street, bound by Fifth Street & Sixth Street	\$12,350	3
35	Macklyn Creek crossing at Easy Street	\$43,450	3
36	Mill Beach Road, west of Fred Myers	\$7,210	3
37	Third Street between Easy Street & Ransom Avenue	\$102,600	3
38	Intersection of Second Street and Easy Street	\$41,670	3
39	1339 Crissey Circle	\$22,050	3
40	Memory Lane and Cedar Street	\$72,170	3
Subtotal Priority 1 Public Projects		\$4,084,705	
Subtotal Priority 1 Private Projects*		\$1,190,460	
Subtotal Priority 2 Public Projects		\$4,239,195	
Subtotal Priority 2 Private Projects*		\$90,550	
Subtotal Priority 3 Public Projects		\$307,680	
Subtotal Priority 3 Private Projects*		\$92,750	
Total Of All Projects		\$10,005,340	

* Project is located on private property

ES.5 PLAN IMPLEMENTATION

The city of Brookings should develop an implementation schedule for the storm drainage projects developed in this study. Funding sources, development pressures, economics, and other variables will affect the implementation of this plan.

It is recommended that the City maintain the three-tiered group priority approach when addressing projects, as discussed in Section 7. By completing the higher priority projects and moving on to the lower priority projects, the City will systematically complete projects necessary to maintain and improve their system. The City should begin developing a plan to finance the selected improvement projects.

ES.6 POTENTIAL FINANCING OPTIONS

Based on recommendations from the Storm Drainage Master Plan, the overall cost for storm drain system improvements is over ten million dollars. Funding assistance is not typically as readily available for storm drain system improvement projects, since public health is not typically at risk. As discussed in Section 8, various funding options are available, including storm drainage system fees, system development charges (SDCs), bonds, loans, local improvement districts (LIDs), and capital construction (sinking) funds.

A financing strategy or plan must provide a mechanism to generate capital funds to pay for the proposed improvements. It is recommended the City complete a financial evaluation to assist in determining what options and capital improvement projects they want to implement.

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GOAL 11 PUBLIC FACILITIES AND SERVICES

GOAL:

To plan and develop a timely, orderly and efficient arrangement of public facilities and services to provide a framework for urban and rural development.

FINDINGS:

1. The City has adopted a Public Facilities and Services Plan that establishes the framework for the distribution of water and sanitary sewer services and storm drainage systems throughout the expanded Urban Growth Boundary.
2. The City has adopted a Water Master Plan/Conservation Management Plan. On July 28, 2014, the City adopted "City of Brookings Water Master Plan Update". This update included data in the appendices from the 2007 "Water System Master Plan Update" regarding the Harbor Water People's Utility District which serves the Brookings Urban Growth Area south of the Chetco River Bridge.
3. The City has adopted a Water Curtailment ordinance that provides the city with the mechanisms to curtail water use in emergencies, including low surface water flows in the Chetco River.
4. **On June 13, 2016 the City adopted "City of Brookings Storm Drainage Master Plan". This update included data in the appendices from the** ~~On January 12, 2009, the City adopted the "Storm and Surface Water Facilities Plan for Brookings-Harbor Area." New policies from this Plan are found in the "Public Facilities Plan for Urban Growth Expansion."~~
5. On April 11, 2016 the City adopted a Wastewater Facilities Plan developed by the Dyer Partnership dated November 2015.
6. The city currently provides the following facilities and services within the City Limits:
 - A. Public Works
 - 1) Water Treatment - 2.0 to 2.6 mgd capacity.
 - 2) Water Distribution, Pumping and Storage - (Total connections 3,354 -3,053 of the connections are residential, 2012).
 - 3) The **Wastewater** service area includes the incorporated area of Brookings plus the Harbor Sanitary District to the South. (Total of 3358 connections within the City limits. The Harbor Sanitary District has approximately 895 connections, which are pumped to the City's treatment plant., November 2015). Current capacity provides for an average dry weather flow of 1.7 MGD, peak day average flow of 10.9 MGD and a peak wet weather hydraulic capacity of 15.5 MGD.
 - 4) Wastewater Collection and Pumping - All public facilities within the city limits

are the responsibility of the City of Brookings. All such facilities in the Harbor Sanitary District are owned, operated and maintained by that district.

- 5) Street and Infrastructure Maintenance - The City's Public Works Department provides maintenance of City streets, water mains, sewer mains, storm drains, and other infrastructure systems.

B. Solid Waste Removal - is presently done by franchised contract

C. Fire Prevention and Protection Services

These services are provided with two paid employees (Operations Chief and Captain) and 24 volunteers. Ratings outlined in the Inventory document show an adequate program with primary need being in the area of improved water system. However, improvements have been made that resulted in the classification being upgraded from a 7 to a 4B.

D. Police Protection

- 1) Existing police facilities in the city hall were rated as having a moderate risk of failure in a major seismic event by FEMA through the Rapid Visual Screening Score. The location was rated as a very high risk seismic zone in the same screening process.
- 2) If population growth exceeded significantly the number projected or if the city boundaries were considerably expanded through annexation, or if the incident of crime jumped radically, it is conceivable that new facilities and additional manpower might be required.

E. Parks and Recreation Facilities and Services

- 1) One state park, Harris Beach State Park, is located within the City of Brookings. See adopted Harris Beach Master Plan, 2003.
- 2) The city owns and maintains approximately 54.4 acres of parkland.
 - a. Azalea Park (formally Azalea State Park)
 - 33 -.2 acres -4 Horseshoe pits
 - 2 Softball fields -2 Bar-ba-que grills
 - Outdoor amphitheater/bandshell -11 Picnic tables
 - 2 Volleyball Courts -Flower garden/natural area
 - Kidtown (.25 ac.) -Restroom facilities
 - Walking and biking trails -Snack shack
 - Capella by the Sea (weddings and passive meditation)
 - Gazebo
 - b. Bud Cross Park
 - 6.4 acres -Skate park
 - 3 lighted tennis courts -3 Picnic tables
 - 2 baseball fields -Basketball courts
 - swimming pool and bathhouse
 - restroom facilities
 - concession stand
 - c. Chetco Point Park
 - 8.9 acres - 4 Horseshoe pits

- walking trails
- 5 picnic tables
- ocean access/ beach access
- Fire pit
- Restroom facilities
- 4 Seating benches
- d. Easy Manor Park
 - .8 acres
 - playground facilities (remodeled in 2010)
 - 4 Picnic tables
 - 4 Seating benches
 - 2 Bar-ba-que grills
 - Restroom facilities
- e. Stout Park
 - 3.3 acres
 - walking paths
 - 8 Seating benches
 - Model railroad garden
 - Manley Arts Center
- f. Numerous mini parks around the City (pocket parks).

3) The City adopted a Parks Master Plan in Aug., 2002. This Plan is incorporated herein by reference.

F. Other facilities and services provided in the City of Brookings are

- 1) Schools
- 2) Transportation for the elderly.
- 3) Regional recreational facilities such as state parks and harbor facilities.

7. The following entities will provide services outside of the city limits within the Urban Growth Boundary.

A. Wastewater Collection

- 1) The Harbor Sanitary District.
 - a. Collects wastewater within their district south of the Chetco River and pumps to the City's wastewater treatment plant.
 - b. Has stated, expansion of the District will only occur when it is in compliance with the Districts adopted Growth Management Policy (Resolution 07-18-R).
- 2) The City of Brookings
 - a. Will provide wastewater collection in the Urban Growth Boundary, south of the Chetco River outside of the Harbor Sanitary District boundaries when land is annexed to the city.
 - b. Will provide wastewater collection in the Urban Growth Boundary north of the Chetco River when land is annexed to the city.

B. Water Distribution

- 1) The Harbor Water District People's Utility District
 - a. Pumps from an intake on the south bank of the Chetco River.
 - b. District boundaries include the entire Urban Growth Boundary expansion south of the Chetco River except for the areas north of its intake facility and the top of the Harbor Hills.
 - c. Is willing to expand its boundaries to include the entire Urban Growth Boundary south of the Chetco River.

- 2) The City of Brookings
 - a. The City currently provides water service to some areas of the Urban Growth Boundary north of the Chetco River.
 - b. The City will provide service to the entire Urban Growth Boundary north of the Chetco River.
 - c. The right to furnish the inhabitants of said City with water shall be forever vested in the City of Brookings, and no franchise, right or privilege shall hereafter be granted to or contract made with any person or corporation by said City to furnish or supply the said City or its inhabitants with water, without the authorization of the legal voters of said City.

C. Fire Protection

- 1) Brookings Rural Fire Protection District.
 - a. Is located around the City in the area north of the Chetco River.
 - b. Is served under contract by the Brookings Fire Department
- 2) Harbor Rural Fire Protection District
 - a. Provides service to the entire Urban Growth Boundary south of the Chetco River.
 - b. Fire station is located on Benham Lane.

D. Police protection

All of the Urban Growth Boundary outside of the city limits is provided police protection by the Curry County Sheriff's Department.

E. Storm Drain Maintenance

- 1) The Oregon Department of Transportation maintains all drainage facilities within a state road or highway rights-of-way.
- 2) The Curry County Road Department maintains all drainage facilities within county road or street rights-of-way.
- 3). Drainage facilities on private property **without City easements** are maintained by the property owner.

POLICIES:

To insure timely, orderly and efficient arrangement of public facilities and services the following policies will be implemented by the City of Brookings.

1. Public Works

- A. Water treatment facilities. Facilities will be maintained with the proper observation and planning to expand facilities on a timely basis to provide continued service to existing customers and projected growth. Expansion programs will be funded through the most cost-effective methods utilizing all available federal, state and local funds.
- B. Water distribution, pumping and storage. New development requiring extension of water mains, pumping and storage facilities will be paid for and constructed by the developer pursuant to the provisions of the current City of Brookings Engineering

Requirements and Standard Specifications for Public Works Infrastructure document.

- C. Water Master Plan/Conservation Management Plan. The City will maintain a Water Master Plan/Water Conservation Management Plan, which will be updated as required.
- D. A Backflow Prevention Program was adopted in 2012.
- E. Wastewater treatment facility. Expansion programs will be funded through the most cost-effective methods utilizing all available federal, state and local funds.
- F. Wastewater collection facilities. New development requiring extension of sewer mains and new pumping stations will be paid for and constructed by the developer pursuant to the provisions of the current City of Brookings Engineering Requirements and Standard Specifications for Public Works Infrastructure document.
- G. Streets and other infrastructure facilities. The City's Public Works Department will inspect and maintain all public street and subsurface infrastructure facilities. The extension of existing streets for new development shall be paid for and constructed by the developer pursuant to the provisions of the current City of Brookings Engineering Requirements and Standard Specifications for Public Works Infrastructure document.
- H. Storm drain facilities. New development requiring new storm drain systems or the extension of existing systems including provision of detention basins, will be paid for and constructed by the developer pursuant to the provision of the current City of Brookings Engineering Requirements and Standard Specifications for Public Works Infrastructure document.

2. Fire Prevention and Protection

The Fire Operations Chief will continue to serve as the head of prevention and protection services. He will continue to maintain the high level of training and service that the community has come to expect through the conduct of local and regional training sessions and a continued education for himself.

3. Police Protection

The Chief of Police shall be responsible for continually monitoring the department's facility requirements and operations. In conjunction with the annual preparation of his budget request, a written evaluation shall be prepared for the City Manager, who in turn, may call attention to specific items for consideration by Planning Commission, Council or staff.

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Proposed new text is bold

PUBLIC FACILITIES PLAN

CITY OF BROOKINGS WATER SYSTEM

The City of Brookings acquired the water system serving property within the City in 1973 and operates the water system as a City business enterprise. The City has made substantial improvements to the water system over the years.

The water enterprise consists of the following operating systems:

- **Source of Supply:** The locations where the City takes or has the right to take ground water for municipal purposes, and the system for transmission of the water taken from these locations identified in Table 3.1 to the water treatment plant and distribution system.
- **Treatment:** Filtering and chemically treating water from the sources of supply during river turbidity which DHS has determined the water treatment is not necessary.
- **Distribution:** A system of pipes that delivers water from the treatment plant to storage reservoirs, fire hydrants and individual properties for domestic and industrial use. Distribution includes operation and maintenance of water usage meters.
- **Management and Customer Service:** Overall management of the water enterprise, engineering, planning, meter reading, billing/collections and customer service (new connections, turn-on/turn off, etc).

WATER SOURCE

Following is the current status of the City's various water right development applications and certificates.

Table 3.1: City of Brookings Water Rights

Source /Type	Permit No.	Certificate No.	Priority Date	Quantity
Chato River (S) (Ranney)	27610	83682	9/14/1961	4.0 cfs
Chato River (S) (Ranney)	31293	87358	1/21/1966	1.57 cfs
Chato River (C) ("Tide Rock")	G5601	64614	8/14/1972	6 cfs
Chato River (S)	51383		12/12/1990	1.0 cfs Mar 1 - Jun 30)
Chato River (R)	R11535		5/13/1993	62.3 Ac-ft
Chato River (R) (10 Reservoirs)	51595		5/13/1993	62.3 Ac-ft
Ferry Creek (S)	1740	2078	8/22/1913	3.0 cfs
Ferry Creek Reservoir (R)	372	1407	8/9/1916	1.5 MG
Ferry Creek Reservoir (R)	408	2071	8/25/1917	26 Ac-ft
Ferry Creek Reservoir (R)	31224	46861	2/10/1966	167.4 Ac-ft
Ferry Creek Reservoir (R)	R4720	46860	2/10/1966	167.4 Ac-ft
Joe Hall Creek (S)	4674	4953	6/23/1920	2.5 cfs
Ransom Creek (S)	18123	20734	2/24/1948	0.53 cfs

Currently, the Chetco River supplies 100 per cent of the City's water needs through a Ranney type groundwater intake collector located along the North Bank Chetco River approximately 4 miles upstream from the Highway 101 bridge. The Ranney Collector is designed for a capacity of 5.7 cubic feet per second (cfs) with all three pumps running, although a portion of the 12-inch AC piping from the intake to the treatment plant is questionably undersized for this flow rate. The Ranney Collector is operated with only 1 pump running rated 1250 gpm or 2.7 cfs. The City installed 9,500 ft of new 16-inch raw water line from the point of diversion to the treatment plant in 2008. There is 4,900 feet of 12-inch AC line between the intake and treatment plant that should be upsized to 16-inch DI in order to operate more than one 1250 gpm (2.7 cfs) pump at the intake.

In 2012, Certificates 83682 and 87358 were obtained as part of a negotiated agreement with Oregon Water Resources Department (OWRD) and Waterwatch, and represent the only water rights currently used by the city for municipal water production.

WATER TREATMENT

The water treatment plant, installed in 1976, is a Neptune Microfloc Aquarius Model AQ-300 that utilizes the conventional rapid sand filtration treatment process. The plant consists of two identical, side-by-side units with a combined capacity of approximately 2.6 mgd. DHS recently downgraded the requirement to operate the treatment plant and water is allowed to be delivered year round with only disinfection. The water treatment plant is also the location of the main distribution pumps which are operated at 2.1 MGD.

WATER DISTRIBUTION

The main line distribution system consists of approximately 26.5 miles of pipe ranging in size from 2 to 16 inches. Pipe materials vary with the most common types being asbestos cement (AC) and polyvinyl chloride (PVC). The distribution system is over-extended in the higher elevation portions of the service area and is not capable of delivering fire flows in some areas. The master plan update has identified over \$6 million dollars in needed distribution pipe upgrades and replacements.

WATER USAGE

Water projection demands in 2013 maximum day demand is 2.1 MGD and expected to increase to 2.3 MGD by 2018. Residential water use has significantly decreased from 96.9 gpcd in 2007 to 96.9 gpcd in 2012. The City began offering water conservation incentives to customers in 2007. Unaccounted for water use has also reduced from 17% loss in 2007 to 10.1% water loss in 2012. The City has contracted an annual leak detection survey to credit for the loss reduction.

FIRE FLOWS

The water system must offer sufficient capacity to furnish water for firefighting while maintaining adequate flows for domestic, commercial and industrial demands. In addition, the required fire flow must be delivered at an accepted residual pressure, which is 20 psi. The City of Brookings has adopted the Oregon Fire Code. The Oregon Fire Code provides the minimum fire flow standard applied to new development. A matrix used to determine fire flow requirements can be

found in Oregon Fire Code, Appendix B, Table 105.1- Minimum required fire flow and flow duration for buildings. There is no community-wide standard, although a basic fire flow of 1,500 gpm for a two hour duration is a minimum in the Oregon Fire Code.

WATER STORAGE

With the completion of the 1.6 million gallon Seacrest reservoir in 2009, the current available storage is 3.6656 million gallons, or 1.78 times the peak day demand. The sizing of the Seacrest reservoir was reduced from a proposed 2.0 mg due to site constraints. The City received a grant to fund installation of a .5 mg water reservoir east of the Brookings Airport. Construction is slated to begin on this project in the fall of 2014. The site will accommodate an additional .5 mg reservoir in the future. In addition, the 2014 master plan update recommends an additional new water storage facility of at least 250,000 gallons in the Old County Road area.

WATER SYSTEM MASTER PLAN

The City adopted a Water System Master Plan Update prepared by PACE, An Engineering Services Company on July 28, 2014.

Harbor Water People’s Utility District

WATER SOURCE

Currently the Chetco River supplies the Harbor Water Peoples Utility District (HWPUD) water needs. The river intake is a Ranney collector with a rated capacity of 6 million gallons per day. Four pumps serve the intake; each rated at 2.4 mgd capacity. The pumps alternate, with two operating together to handle peak demands.

The HWPUD currently holds two surface water rights from the Chetco River and has two ground water sources. These are summarized in the following table.

Harbor Rural Water District Water Rights			
Source	Priority Date	Amount	Amount
Chetco River	1966	3.500 cfs	2.26 mgd
Chetco River	1980	7.00 cfs	4.53 mgd
Well G3240	1966	3.50 cfs	2.26 mgd
Well G9438	1980	7.00 cfs	4.53 mgd
Total		21.00 cfs	13.58 mgd

WATER TREATMENT

The Ranney intake is considered equivalent to a ground water system. For this reason, water treatment is not practiced.

WATER DISTRIBUTION

The distribution system is an extensive loop system that extends from the Chetco River to the California border, and consists of approximately 50-55 miles of pipe ranging in size from 2 to 16 inches. Pipe materials vary with the most common types being asbestos cement (AC) and polyvinyl chloride (PVC), and ductile pipe.

WATER USAGE

Current water production data shows that the average daily water demand is 700,000 gallons with the peak day demand being 1,700,000 gallons. Serving an estimated 2,500 persons, the current population, the average daily water usage per person is approximately 280 gallons, with a peak demand of 680 gallons.

FIRE FLOWS

The water system must offer sufficient capacity to furnish water for fire fighting while maintaining adequate flows for domestic, commercial, and industrial demands. Also the required fire flow must be delivered at an accepted residual pressure which is 20 psi. The HWPUD has sufficient storage to meet a demand of 1500 gpm for two hours where necessary. The necessary storage to meet that requirement would be 180,000 gallons. HWPUD has the capacity to deliver fire flows.

WATER STORAGE

There are eleven water storage reservoirs in the HWPUD, which give a total storage capacity of 2,060,000 gallons. The following table summarizes the current water storage for the district.

Harbor Water District Storage			
Reservoir	Bottom Elevation	Overflow Elevation	Storage Capacity
Crown Terrace 1	525.5'	537.5'	10,000 gal
Crown Terrace 2	525.5'	537.5'	10,000 gal
Crown Terrace 3	795'	807'	10,000 gal
Crown Terrace 4	795'	807'	10,000 gal
Crown Terrace 5	1,025'	1,037'	10,000 gal
Crown Terrace 6	1,025'	1,037'	10,000 gal
Hallway 1	201.36'	234.81'	750,000 gal
Hallway 2	203.62'	234.81'	500,000 gal
Coleman	355.18'	388.60'	300,000 gal
Benham	355.18'	386.60'	200,000 gal
Freeman	203.32'	234.74'	250,000 gal
TOTAL			2,060,000 gal

The required storage for the HWPUD is shown in the following table.

Harbor Water Storage Estimate		
Peak Day Demand	1,700,000 gallons	
Twice the Ave Day Demand	1,400,000 gallons	
Larger of the above two		1,700,000 gallons
Fire Storage	1500 gpm x 2hrs	180,000 gallons
Equalization Storage	20% peak	340,000 gallons
	Required Storage	2,220,000 gallons

HARBOR WATER PUD MASTER PLAN

Harbor Water PUD adopted a Master Plan in December, 2000 that is incorporated herein by this reference.

CITY OF BROOKINGS WASTEWATER SYSTEM

The original Brookings sewer system was constructed about 1916 and service was initially limited to the downtown area. The City assumed operation of the sewer system soon after incorporation in 1951. The City operates the wastewater system as a City business enterprise. The wastewater enterprise consists of the following operating systems:

COLLECTION

The City accepts domestic sewage from property in the service area that is connected to the sanitary collection system, and transmits the sewage to the wastewater treatment plant. The collection function includes the operation of sewage lift stations installed at various locations within the collection system to assist the flow of sewage to the treatment plant.

Currently, the collection system consists of a network of 6, 8, 10 and 12-inch mains connected to 18 and 21-inch interceptors and lift stations. There are approximately 32.7 miles of 6-inch to 21-inch gravity mains and 2.75 miles of 4-inch to 14-inch diameter force mains in the collection system. The system provides service connections to individual properties within the service area. The interconnection with the HSD also functions as a part of the collection system.

LIFT STATIONS

The City currently operates 13 lift/pump stations located to serve areas which cannot be served with gravity-fed sewer mains.

TREATMENT

Treatment involves removal of solids from the sewage received at the wastewater treatment plant, and clarification of processed solids after biological treatment and disinfect using U.V. bulbs in the effluent stream, to meet federal and state standards prior to discharge into the ocean. Treatment includes the processing, reprocessing and disposal of solids removed from the sewage.

The wastewater treatment plant has been located at Chetco Point since the early 1950's. Major modifications to the plant were made in 1973, 1991, and 2000.

Treated water, or effluent, produced by the wastewater treatment plant is discharged to the Pacific Ocean. The Oregon Department of Environmental Quality establishes discharge limitations for discharge to ocean waters. A new Class B sludge dewatering facility was constructed and brought on line in December, 1012 which eliminated the need for sludge trucking to Grants Pass.

RELATIONSHIP TO HARBOR SANITARY DISTRICT

In 1976, the Harbor Sanitary District was formed to serve an area just south of the City. The City and HSD have entered into a series of intergovernmental agreements whereby the City accepts sewage from HSD for treatment. See below for a description of the HSD system.

BROOKINGS WASTEWATER MASTER PLAN

The City adopted a Wastewater Facilities Master Plan in April, 2016. That Master Plan is incorporated herein by reference. A detailed discussion of the treatment system and plant capacity can be found in the Plan. Until sewer service can be extended to properties, interim urban-level treatment systems may be allowed only if specifically provided for in master plans which set forth appropriate standards and conditions and which have been adopted as post-acknowledgement plan amendments or periodic review work task elements.

HARBOR SANITARY DISTRICT WASTE WATER SYSTEM

The community of Harbor is an unincorporated residential, commercial, and industrial area south of the Chetco River and the City of Brookings. The Harbor Sanitary District (HSD) has served this area since June 1976. The HSD operates only a collection system. Wastewater is piped to the Brookings wastewater treatment plant for treatment. The area's land use is predominantly residential, but a regional shopping center and an extensive commercial and industrial complex surround the Brookings-Harbor Boat Basin. The Harbor Bench area south of Harbor, an area experiencing steady growth, currently is out of the sewer service area; however, it is an area that potentially may become part of the service area. In 1979 the Oregon Health Division directed the HSD to annex an adjoining area, the Oceanview Mobile Home Estates, due to wastewater treatment concerns.

POPULATION

The following population data was taken from the "City of Brookings Comprehensive Utilities Plan" dated September 1981. Population projections were based on the 1970s, a growth period.

Harbor Sanitary District Population Growth				
Year	1980	1990	2000	2010
Population	1,968	2,645	3,555	2,770

COLLECTION SYSTEM

In 1976, the HSD was formed. The collection system consists of four pump stations and a network of gravity lines. Wastewater is pumped across the Chetco River to the south portion of the City of Brookings service area. There a 20-inch gravity main conveys the wastewater to the Brookings treatment plant. The daily flow rate is approximately 0.28 mgd.

The collection system consists of 16.5 miles of 8-inch and 12-inch transite pipe.

PUMP STATIONS

Flows from the entire Harbor collection system enter HSD pump station No. 14. Discharge from this station is to the Brookings WWTP by means of an 8-inch force main over the Chetco River or a 12-inch force main under the Chetco River. Space for additional force mains is available. Pump station No. 14 is rated at 2,000 gpm and 125 feet. The other three pump stations are small and serve limited areas.

HARBOR SANITARY DISTRICT MASTER PLAN

HSD completed and adopted a Master Plan in December.

Until sewer service can be extended to properties, interim urban-level treatment systems may be allowed only if specifically provided for in master plans which set forth appropriate standards and conditions and which have been adopted as post-acknowledgement plan amendments or periodic review work task elements.

CITY OF BROOKINGS STORM DRAINAGE

The City of Brookings operates a storm drainage system within the city boundaries. **A large portion of the storm drain infrastructure within the city limits is on private property, and is not maintained by the City. The infrastructure crossing Chetco Avenue is owned and maintained by ODOT. Storm water collected within private development and the City is typically conveyed through a series of constructed open channels or piping and is discharged to the nearest natural water body (local streams, Chetco River, Pacific Ocean). Portions of the infrastructure are old and have exceeded their life expectancy.** ~~Drainage basins flow to the ocean or the Chetco River. Generally local area flows are conveyed via pipes to discharge points at surface drainage ways. The majority of the existing piping system is located in the western old portions of the city draining to the Chetco. Highway 401 presents a major flow obstruction to natural drainage pattern, requiring culvert crossings. Some limited historical flooding has occurred, but the problems are related to site-specific causes.~~

The existing storm drain system includes approximately 23 miles of gravity piping that range in size from 8 inches to 60 inches in diameter, and is both publicly and privately owned. Pipe materials typically consist of high density polyethylene (HDPE), polyvinyl chloride (PVC), reinforced concrete pipe (RCP), and corrugated metal pipe (CMP). A significant portion of the City's storm water conveyance system consists of natural and constructed open channels.

For storm drain infrastructure design, a storm with a recurrent interval of 25 years is appropriate for city streets and neighborhoods. The rainfall total for a 25-year storm is 8 inches in a 24-hour period. A storm with a recurrent interval of 50 years is appropriate for drainage facilities intersection or passing through Chetco Avenue. The rainfall total for a 50-year storm is 9 inches in a 24-hour period.

STORM DRAINAGE SYSTEM MASTER PLAN

The City adopted a Storm Drainage Master Plan prepared by The Dyer Partnership Engineers & Planners, Inc. on (date of adoption). The plan is hereby incorporated by this reference.

CURRY COUNTY

Curry County services all public storm drainage in the study areas north and south of the Chetco outside City limits. The service level is mainly rural road maintenance that consists of ditch culvert cleaning associated with road maintenance. All other drainage features are privately owned. The Harbor Bench area, which is outside the urban growth area, has experienced flooding and erosion due to upstream growth and diversion of flows due to culvert placement.

CITY/ COUNTY STORM DRAINAGE MASTER PLAN

On January 12, 2009, the City and the County adopted the “Storm and Surface Water Facilities Plan for Brookings-Harbor Area.” In the Plan are design and development standards and proposed improvements to the storm drainage facility. There are also maps depicting the various basin areas in City limits and the Urban Growth Area, hydrologic/ hydraulic analysis, and the discussion of the effects on specific areas in the Plan. The Plan is hereby incorporated by this reference.

The Storm and Surface Water facilities Plan for Brookings Harbor Area” contains the following policies:

- Low impact development is preferred.
- Negative impacts to natural watercourses are to be avoided.
- Piping of a natural watercourses is to be avoided, where practicable.
- Protection of ground water sources is critical.
- Proposed facilities should address water quality impacts and mitigation measures.
- Erosion and sediment must be controlled using the City, County, and Department of Environmental Quality requirements.
- Stormwater discharges shall be maintained at current levels.
- A public education program is recommended to disseminate information on the importance of preventing negative impacts from stormwater.

The “Storm and Surface Water Facilities Plan for Brookings-Harbor Area” contains specific design and development standards and proposed improvements to the storm drainage facility. To avoid adverse impacts created by development, the Plan contains five strategies to be generally utilized:

1. There should be no post-development net increase in storm drainage discharge downstream.
2. Low impact development practices as described in the 2007 “Storm and Surface Water Facilities Plan” shall be implemented.
3. The capacity of the downstream drainage infrastructure is improved to convey the increased flow. Usually this means constructing larger culverts and storm drains. Generally, the natural drainage channels are improved, but because of the study area’s proximity to the ocean and the steep rocky terrain, these channel improvements may not be necessary.

4. A regional detention facility is constructed to capture the additional runoff and release the flow at a slower natural rate. A regional facility is normally associated with a single drainage way or creek.
5. An onsite detention facility is constructed for each individual development. The goal for a regional or onsite detention facility is that the runoff from the post-development condition be reduced to flow equaling the pre-development condition.

The Harbor Hills Master Plan Area within the UGA is required to prepare a comprehensive surface water management plan prior to any land use approvals. The details required and the review and approval process are described in the "City of Brookings and Curry County Joint Management Agreement", dated June 30, 2010.

