

*Appendix A*

***Overall Program Management and  
Legal Authority***

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# ECONOMIC DEVELOPMENT/INFRASTRUCTURE STRATEGIC MANAGEMENT MEETING

**PURPOSE:** Provide multi-departmental strategic direction for infrastructure and planning projects to achieve the City's growth plans

**July 8, 2014  
1:30 - 4:00 PM  
City Hall - Board Room**

Facilitator:	<i>Russell Grayson</i>	Notes:	<i>Nancy Flannigan</i>
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## AGENDA

<b>TOPIC</b>	<b>Person presenting/leading</b>	<b>Time Allocated</b>
1. Review upcoming calendar of events 2. Review Communications Projects	Russ	15
3. <b>Sewer and Stormwater PFPs</b> <u>Objective:</u> Discussion on timing	Brian	20
4. <b>Growth Management's Strategic Priorities</b> <u>Objective:</u> Discussion	Nick	30
5. <b>Department Roundtable</b>	Everyone	30
6. <b>Wrap up</b> a. Review Action Items b. Review future agenda items	Russ	5

## Calendar of Events

1. July 12 - Summerfest - City will have a booth
2. July 17 - Pub Talk at Broken Top Bottle Shop - Nick to speak on TGM
3. August - Utility Rate Modernization
4. August 17 - Public Transportation Forum at COCC

<b>Future Agenda Items</b>	
1. Airport master plan	Brian
2. SDC Agreements - master filing system	Russ/Mary
3. Discuss well hook-up requirements. Include Crown Villa in this discussion	Russ/Tom
4. Juniper Ridge	Jon
5. Juniper Utility – HOA, legal, and due diligence strategy, PIP/Charter	As determined
6. Revised ROW permitting process	Mel/new streets hire
7. Revisit the un-sewered areas (Kings Forest, etc.)	Tom/Russ
8. Coordinate communications with the various City projects	Justin/Brian
9. LID discussion (put as council goal policy for next year)	Finance Director
10. TGM	Nick
11. Discuss how are we framing/packaging code updates - TBD	Colin/Russ
12. Discuss coordination of road closures (GIS?) - invite Cindy and Mary P.	Nick/Russ
13. Discuss staffing needs for EIPD	Tom
14. Follow-up the parks department projects discussion - TBD	Russ/Colin

<b>Communications Projects</b>
<b>Short Term/Seasonal</b>
1. Street preservation work
2. Newport/College Way roundabout closure
3. Community events/festivals
4. BikeWalk CIP
5. Water Treatment Facility groundbreaking
6. Colorado Lift Station
7. Utilities Customer Service Survey
8. Bridge Creek Pipeline construction updates
9. Planning fees outreach
<b>Long Term</b>
1. UGB
2. SIAG/additional sewer projects
3. OSU Cascades Land Use Solutions
4. TGM
5. Utility rate modernization
6. Juniper Utility
7. Vacation rentals
8. GO Bond construction

**City of Bend**  
**Stormwater Liaisons Meeting**

**Proposed Agenda**  
**October 20, 2014, 10:30 to Noon**  
**Board Room, City Hall**

*Purpose: Coordinate Stormwater Activities Among Affected Departments*

**I. Welcome and Introductions (5 minutes)**

*Objective: Welcoming remarks. Review and accept minutes. Receive updates on previous action items. Review and modify agenda as needed.*

**II. Updates (5-10 minutes), Wendy Edde**

*Objective: Receive/provide updates regarding City's stormwater permits and related regulations, and additional items of interest.*

**III. Review Draft FY2013-14 Annual Report (15-20 minutes), All**

*Objective: Receive update on the comments received by PAG and provide review comments on the initial draft FY2013-14 Annual Report, to be submitted to DEQ by November 1.*

**IV. Stormwater Compliance Implementation and Enforcement Review (30-40 minutes), All**

*Objective: Discuss proposed steps forward to review and refine implementation and enforcement procedures for stormwater compliance. Conduct initial brainstorm of areas working well and those needing additional attention. Discuss key personnel.*

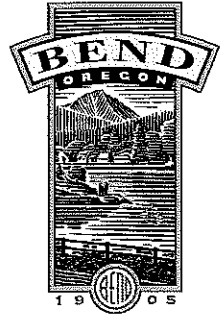
**V. Roundtable Discussion (5-10 minutes)**

*Objective: Open discussion.*

**VI. Next Steps (5-10 minutes)**

*Objective: Confirm understanding of key decisions made and action items agreed upon.*

City of Bend  
Stormwater Liaisons  
Meeting Attendance Sheet  
October 20, 2014



Name:	Department/Division:
1. Wendy Edle	Utility/Stormwater
2. STEVE PRANK	Utilities / Water Quality
3. James Goff	CD/CE
4. RYAN OSTER	EIPO
5. Hardy Hanson	ROM
6. Mike Buttner	EIPD/Water Resources
7. Tom	Comm
8. GEORGE FRANKLET	EIPD
9. GARY FIRESTONE	LEGAL
10. Russell Grayson	City Engineer
11. Shannon Osterloff	UTILITIES
12. Joe McClay	Bldg
13. Justin Firestone	Comm
14.	
15.	

## **Stormwater Liaison's Meeting Summary October 20, 2014**

**Attendees:** Gary Firestone (Legal); Joseph McClay (Building Division); David Buchanan, Wendy Edde, Steve Prazak (Utility-Water Quality); Ryan Oster, George Franklet, (EIPD--Engineering); Mike Buettner (EIPD—Water Resources); James Goff (CDD-Code Enforcement); Hardy Hanson (Right-of-Way Operation & Maintenance); Gary Firestone (Legal); Russell Grayson (City Engineer); Shannon Ostendorff (Utilities—Operations); Justin Finestone (Communications)

### **Key Items Discussed:**

- Stormwater Updates
- Draft Annual Report
- Stormwater compliance Implementation and Enforcement Review

### **Key Decisions/Action Items**

- Wendy provided an update on the status of stormwater permitting. DEQ staff changes have delayed the re-issuance of the NPDES permit, with Lisa Cox replacing Benjamin Benninghoff at DEQ. The current permit issued in 2007 has been administratively extended until a new permit is received. The City is also working to pull together APWA re-accreditation materials
- The group reviewed the FY13-14 Annual Report. Wendy provided an overview of PAG comments. Engineering inspection data will be provided by Friday. Hardy recommended including mention of the street level photography.
- Wendy walked through a proposed approach to conducting a stormwater compliance implementing and enforcement review. The approach would include discussing implementation effectiveness as a team, and then breaking into ad hoc task group meetings to address the issues. The information will be used to update the draft Stormwater Management Implementation and Enforcement Response Plan, which will be brought back to the group for a full review, and then on for a department head review. Wendy will take this proposed approach to Jon's ACM meeting for buy-in and a confirmation of participants and commitment for the work groups. Wendy would like to complete the effort in time for planning for the biennial budget.
- Wendy reported that Utilities applied for a right-of-way code enforcement type position but it did not make the cut in the second phase of hires. It will be resubmitted for the third round.
- Russ reported that a standard operating procedure for addressing stormwater reviews for commercial sites is nearing completion, and he will share that upon obtaining signatures.
- Team reviewed key sections of Bend Code Title 16 and the Standards and Specs; brainstormed what is working and what processes need improvement.

Positive	Needs Attention/Improvement
<b><i>Illicit Discharge Minimization</i></b>	
Code language is now clearer	Need to increase education with regards to request for extra eyes in the field.
IDDE has a staffperson	Map of locations of private site drainage drywell, drillholes, swales would be useful for increasing effectiveness.
DEQ is assisting City when needed.	
<b><i>Single Family Residential</i></b>	
Interdepartmental staff are having honest conversations on the topic.	No one is adequately focusing on inspection or compliance. This is our biggest legal exposure.
More complicated projects are getting review	Will need top down support for proper implementation
Extra eyes in the field—Building inspectors are looking at ESC and proper housekeeping for the first time.	Building Division is not funded to review SFR
We are increasing our understanding of assumption on subdivisions.	There are gaps in review and enforcement from ESC review through construction to final
	Not clear who is looking at drywells installation (Building is not)
	Sites are too small to handle stormwater onsite
	End of driveway controls are not occurring
	There are not credits for SFR. Fee is so low that may not be cost-effective to offer credits for SFR on a billing basis.
	If drainage is kept on lot, then affordability issues are raised due to the costs.
	Dealing with downstream problems, and how they increase especially in hillside areas.
	Regulatory perspective with combining public and private stormwater must be considered. And Oregon Drainage Law.
	There is no long-term regulatory inspection strategy to ensure onsite facilities are maintained or still exist or newer facilities went in in the first place.



<b>Positive</b>	<b>Needs Attention/Improvement</b>
	Need education of owners, and each new owner, of location, type, reason, and maintenance requirements of on-site facilities.
	City takes on liability when we sign-off on something that we are not sure if it went in properly.
	Need to sort out liability when runoff crosses private/public/private/private/public and develop solutions to minimize such.
	Curbs need standards size and need to be maintained at that size.
	Myopic lot focus; need to develop drainage basin focus.
	Limited understanding/education needed for local engineers/designers
	Driveway locations are sometimes at a low spot (hillsides).
<b>Non SFR Construction</b>	
Communication between CDD and private engineering occurring—SOP being developed	Working to get plan sheet and separate drainage report
We are requiring drainage reports including:	For certification we need to standardize: --what are they certifying; what is the drywell standard that we are using.
Drainage Certifications	Revisit 25-year storm; may want 50 year storm similar to Redmond
Maintenance Agreements with a site plan	Consider providing a maximum cap on the size of a UIC (no > 25,000 gallons per UC) to ensure the water can get through the inlet.
Submitting infiltration information (if high enough rate mentioned, then sources must be cited.)	City is heavily dependent on sedimentation manhole and UIC right now. Need to determine and confirm our preferences.
Educational Outreach developed	Capture UIC infiltration rate in GIS and standardize format so it can be tracked over time.
Working to coordinate drywell testing standards with Redmond for regional applicability	Proper registration of UICs needs to go through Spencer Sanvitale (GIS)
	Need to create private UIC database.
	Check online references for Code

Positive	Needs Attention/Improvement
	language and link to /stormwaterBMP
<b>Post-Construction/Site Design</b>	
Getting stormwater maintenance agreement	Guidance on preferred pretreatment needed (sed manhole, landscape control, manufactured control)
Have increased design storm clarity to 25 year with safe passage from 100-year	Work with Spencer to develop private UIC database
Define line from building department to kick to the engineer to review	Look at Master Planning facilities rather than on individual lots as trend toward densifying. Consider regional approach to drainage in some neighborhoods.
Educating private engineering on drainage reviews	Explore 100 year safe passage. Define. To minimize water going everywhere.
Calculation table effective	Addressing pre-existing problems
Changed specification for seed establishment to >45 day window to better ensure success	Volume availability for storage solutions (e.g. cisterns)
COSM was adopted regionally and provides for consistency	Address private take responsibility for maintaining public right of way for stormwater facilities
Storm drains lids with pollution prevention message are now the standard	Public-Private Partnerships— addressing BOLI, and legal agreement indemnification
There is a stormwater infiltration facility plant list for plants suitable to Central Oregon	How to ensure weed free soil through planting specs and seeding specs and proper inspections of such.
New: streets with bike lanes will only have curb openings and City is moving grates out of bike lanes.	Need a process for considering stormwater implications for proposed code changes.
	Need to clean up specs to improve tracking and maintenance
	Landscape requirements in ROW need improvement in specs.
	Research data on permeable specs and standards related to cold environment; freeze/thaw (50 degree swings) shifts; studs; and utility pipe protection
	COSM overly complicated for engineering wherewithal around town
	Need guidance on testing: standing head; what is best way to sample

Positive	Needs Attention/Improvement
	Everyone should design drywells the same way
	How get vegetation in swales established: --proper warranty period --Not just “let die and replant” --Planting issue and seeding issue --Track and revisi plant list over tiem
	Math not working on SFR—can’t comply with lot sizes. But stormwater is not allowed to come off. No calculations on sheets and yet City is signing off. Liability.
<b>Stormwater Facility Maintenance</b>	
Maintenance Requirements Now Exist.	Provide maintenance schedule to code enforcement communicate with public.
Storm crews are maintain stormwater facilities 9roles & responsibilities)	Homeowner filling in landscape controls
Flammable vegetation adjacent homeowner responsible in strip between sidewalk and street.	Adequate resource for maintenance (streets—3 landscapers; stormwater-4 crew; roundabouts-volunteers; street trees--??)
	No inspections onsite.



# City of Bend Stormwater Liaisons Meeting

Proposed Agenda  
April 23, 2015, 10:30 to Noon  
Board Room, City Hall

*Purpose: Coordinate Stormwater Activities Among Affected Departments*

**I. Welcome and Introductions (5 minutes)**

*Objective: Welcoming remarks. Review and accept minutes. Receive updates on previous action items. Review and modify agenda as needed.*

**II. Updates (5-10 minutes), Wendy Edde**

*Objective: Receive/provide updates regarding City's stormwater permits and related regulations, and additional items of interest (e.g. stormwater considerations map, Clean Water Works campaign)*

**III. Coordination for DEQ Permit Writer Visit (15 minutes), All**

*Objective: Receive updates with regards to agenda and staff needs to prepare for Lisa Cox's visit to Bend on Monday.*

**IV. Stormwater Compliance Implementation and Enforcement Response Plan Draft Overview (30 minutes), All**

*Objective: Given recent organizational and staffing changes, receive overview and draft stormwater compliance implementation and enforcement response plan in preparation for review. Discuss outstanding issues.*

**V. Coordination Needs Discussion (10-15 minutes), All**

*Objective: Discuss areas still needing coordination (e.g., soil spec inspection; communication for release to O&M crews, decommissioning procedures)*

**VI. Roundtable Discussion (5-10 minutes)**

*Objective: Open discussion.*

**VI. Next Steps (5-10 minutes)**

*Objective: Confirm understanding of key decisions made and action items agreed upon.*

City of Bend  
Stormwater Liaisons  
Meeting Attendance Sheet  
April 23, 2015



Name:

Department/Division:

- | Name:              | Department/Division: |
|--------------------|----------------------|
| 1. Wendy Edde      | Utility              |
| 2. [Signature]     | Utility              |
| 3. [Signature]     |                      |
| 4. Nicolae Oltean  | PDE                  |
| 5. Russell Grayson | PDE                  |
| 6. Joe McClay      | CDP                  |
| 7. Craig Chenoweth | CDP                  |
| 8.                 |                      |
| 9.                 |                      |
| 10.                |                      |
| 11.                |                      |
| 12.                |                      |
| 13.                |                      |
| 14.                |                      |
| 15.                |                      |

DRAFT

## **Stormwater Liaison's Meeting Summary April 23, 2015**

**Attendees:** Joseph McClay (Building Division); David Buchanan, Wendy Edde, Steve Prazak (Utility-Water Quality); Ryan Oster, (EIPD--Engineering); Russell Grayson (City Engineer); Shannon Ostendorff, Reese Moody (Utilities—Operations); Colin Stephens, Craig Chenoweth (CDD)

### **Key Items Discussed:**

- Stormwater Updates: Wendy provided updates on the ACWA Stormwater Summit, plans to update the DEQ 1200C permit, the City's Clean Water Works program and the stormwater program pre-outreach campaign evaluation. David provided an overview of the result of the stormwater impervious surface audit.
- Coordination for DEQ Staff Site Visit
- Stormwater Compliance Implementation and Enforcement Response Plan Draft – Attendees received an overview and copy of the draft plan.
- Coordination Needs – The group reviewed the 4/23/15 draft of stormwater issues needing improvement/proposed means to address, which built on the conversation from the October meeting and included status updates for areas needing improvement.
- Standards and specs update is currently on hold; staff are reviewing workflows. Kyle is creating a new construction process—at a high level. They are looking to have the project engineer provide certification letters that grading and construction is to plan, then record the drawings.
- Drywell Test reports—City is getting a lot better information on design; and they are requiring full drainage reports. For testing, they currently have two methods—the standing head test, or if 10,000 gallons or less to do the design storm. Receiving push back from the field. Attendees discussed the reasoning the COSM is to mimic saturation conditions. City is still working out how best to standardize the procedures. Mike Caccavano has been working on these in Redmond as well.
- New development coordination. Joe and Nicolai are working on a checklist. When new developments come in, the address coordinator is involved with partitions now, so the communication to finance to properly set up stormwater utility fee accounts should be improving. The City is moving away from the supplemental SDC questionnaire, so information is getting buried. Building permit is being considered.

## DRAFT

- Russ and Joe are coordinating to better define roles and tracking across divisions and through the process, and determining check-in points.

### **Key Decisions/Action Items**

- Wendy will provide Reese registration information for the ACWA Stormwater Summit.
- For the site visit, attendees determined at which locations they would make their introductions.
- Attendees to review and provide comments on the Stormwater Compliance Implementation and Enforcement Response Plan Draft
- City is keeping with the requirements to have pretreatment including a sediment manhole to help prevent clogging of UICs and for spill impact minimization.
- Group needs to keep working to refine and communicate DEQ UIC registering and decommissioning procedures with switch to the permit. Attendees to provide comments on the revisions to the SOPs for Stormwater UIC Decommissioning and Recordkeeping, and for UIC Registration. Wendy to draft changes to the registration SOP. Wendy will examine the process for sewage drill holes decommissioning, and specify that the SOP is for stormwater.
- For drywell test reports, Shannon to coordinate with Kyle and forward the Construction Inspection list.
- Russ to send out his thoughts for proposed changes to drywell testing procedures to the group for review.
- Shannon will work Mike Caccavano to get an update on what Redmond has done.
- Drywell sizing--Engineering is considering requirements no drywell should be designed to take more than 25,000 gallons. Idea was generally supported.
- Russ will share discussions today with Kyle and will ask Kyle to coordinate the workflow work he is doing with the stormwater needs.
- Craig Chenoweth will check on the building application if the stormwater impervious surface information should best be kept there rather than the supplemental SDC form. We then need to revisit that SOP for setting up new stormwater accounts.
- A training for Billing, techs, etc. would be useful once all the needed changes to the processes are ready to ensure utility accounts are properly being set up.



## **Stormwater Coordination Meeting: DEQ Site Visit**

**Monday April 27, 2015**

**10 AM Boyd Acres Eisenhower Room**

**Attending: Lisa Cox, Wendy Edde, Reese Moody, Shannon Ostendorff, Steve Prazak, Jeff Buystedt/Drexel Barnes**

- I. Welcome and Introductions, 10 minutes, All
- II. Bend's Watershed Context and Program Overview, 20-30 minutes
  - a. Overview of Stormwater In Bend (Wendy)
  - b. Internal Organization and Coordination (Wendy, Shannon, Steve)
  - c. Funding Source (Wendy)
  - d. Snapshot of Bend's Water Quality (Jeff/Drexel, Steve)
  - e. System Maintenance/Municipal Operations: Pollution Prevention (Reese, Wendy)
  - f. Local Interest In Stormwater Pollution Prevention (Wendy)
  - g. Stormwater Education and Participation (Partners/Supporters) (Wendy)

**10:40-11:15 Driving Tour (Lisa, Wendy)**

- III. Discussion Items: Illicit Discharge Detection and Elimination, Permit Renewal
- IV. Site Visits (potentials, depending on time):
  - a. Pilot Butte (if early for overview)
  - b. In-field Maintenance Work
  - c. Hydromodification of the River
  - d. Stormfilter at Newport Bridge
  - e. Third Street Underpass
  - f. Riverside Permeable Pavement
  - g. Old Mill/BPRD Area

**11:15 AM Community Development Department: Meet in City Hall Lobby by Info Desk, May Walk to Riverside/Drake Park or Bluebird Coffee (Weather Dependent)**

**Attending: Lisa Cox, Wendy Edde, Russ Grayson/Nicolae Oltean, Craig Chenoweth, Joseph McClay, Jeff England**

- V. Welcome and Introductions (10 minutes)
- VI. Program Overview (15-20 minutes)
  - h. Erosion Prevention and Construction Site Management (Colin, Russ/Nic)
  - i. Post-Construction Stormwater Management (Colin, Russ/Nic, Wendy)
  - j. CIP Improvements (Jeff England)

**11:45 AM Return to Boyd Facility**

**12:00 Noon Adjourn**

## **Stormwater Liaison's Meeting Summary—Special Meeting with DEQ**

**April 27, 2015**

**Attendees:** Lisa Cox (DEQ), Wendy Edde; Steve Prazak; Reese Moody; Shannon Ostendorff; Drexell Barnes; Jeff Buystedt (City of Bend Utilities); Russell Grayson Nicolae Oltean; Craig Chenoweth; Joseph McClay (City of Bend Community Development Department)

### **Key Items Discussed:**

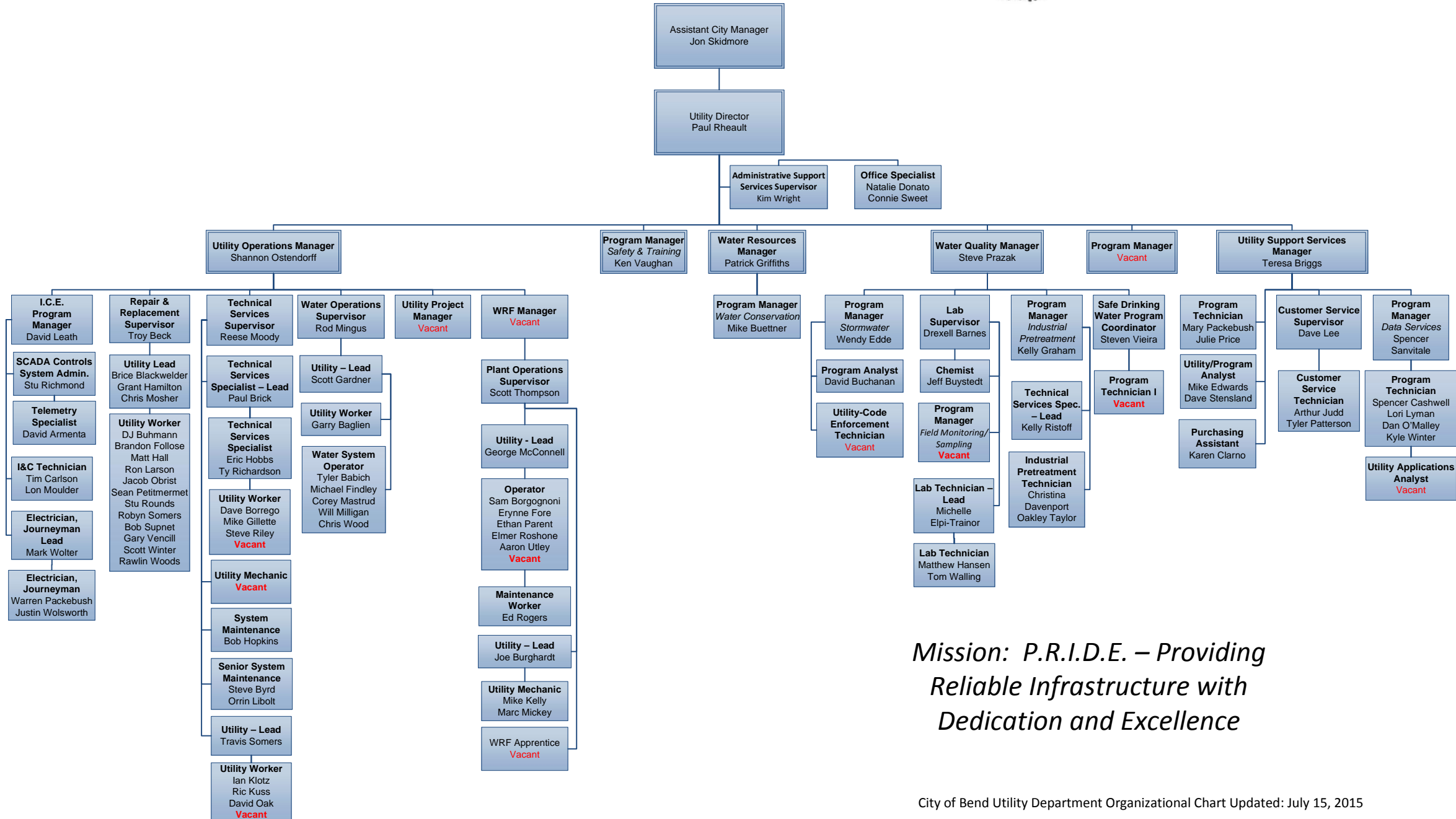
- Introductions with Lisa Cox, DEQ Municipal Stormwater Coordinator
- Overview of Stormwater Program Within Various Departments
- Site Visits—Boyd Acres, City Hall, Drake Park area

### **Key Decisions/Action Items**

- Meet and greet.
- Program Overview—Watershed background, program management, operations and maintenance, monitoring, illicit discharge, construction site program, post-construction controls.
- Permit reissuance timeline. Lisa to restart TAC in June.
- DEQ will move forward with a general permit.



# UTILITY DEPARTMENT



*Mission: P.R.I.D.E. – Providing  
Reliable Infrastructure with  
Dedication and Excellence*

# CITY OF BEND RIGHT-OF-WAY OPERATIONS & MAINTENANCE DEPARTMENT



ASSISTANT CITY MANAGER  
JON SKIDMORE

DEPARTMENT DIRECTOR  
DAVID ABBAS

EXECUTIVE ASSISTANT  
CHRISTY McQUILLEN

## GARAGE & FLEET DIVISION

GARAGE / FLEET MANAGER  
**VACANT**

EQUIPMENT MAINTENANCE SUPERVISOR  
QUIRT LANCASTER

EQUIPMENT TECHNICIAN  
CARL HOWE

EQUIPMENT TECHNICIAN  
DOUG NEWBERG

EQUIPMENT TECHNICIAN  
DAVE PIERCE

EQUIPMENT TECHNICIAN  
JAMES SCHWARTZ

OFFICE SPECIALIST III  
GARAGE DIVISION  
CHRIS DORSEY

PROGRAM TECH  
GARAGE DIVISION  
(PART TIME)  
MARYBETH ALLEY

## STREETS DIVISION

STREETS DIVISION MANAGER  
HARDY HANSON

OFFICE SPECIALIST III  
STREETS DIVISION  
DIANE CANADAY

OFFICE SPECIALIST I  
STREETS DIVISION  
BRENDA MEISTRELL

## TRANSPORTATION ENGINEERING CUSTOMER SERVICE DIVISION

TRANSPORTATION ENGINEER  
JULIA WELLNER

TRANSPORTATION ENGINEERING ASSOCIATE  
**VACANT**

STREETS MAINTENANCE SUPERVISOR  
CHRISTOPHER BLAKE

STREET UTILITY LEAD  
WILL WALDROP

STREETS CONSTRUCTION SUPERVISOR  
PAUL NEISWONGER

STREET UTILITY LEAD (CONCRETE)  
RICK VOLKMAN

STREET UTILITY LEAD (ASPHALT)  
JOSH OLIVER

STREET UTILITY LEAD  
JIMMY HALL

PROGRAM TECHNICIAN II  
ADAM MALINOWSKI

CEMETERY SEXTON  
BOBBIE RADER

STREET UTILITY III  
DENNIS CANNON

STREET UTILITY III  
SKIP STENKAMP

STREET UTILITY II  
DYLAN JACKSON

STREET UTILITY II  
GEORGE MORRISON

STREET UTILITY I  
LUCAS GARDNER

EQUIPMENT OPERATOR (PART TIME)  
GALEN BAKER

STREET UTILITY III  
SADELL SCARBROUGH

STREET UTILITY II  
TY COMBS

STREET UTILITY I  
TONY COTA

STREET UTILITY I  
DANIEL SCHMIDT

STREET UTILITY III  
RON CARPENTER

STREET UTILITY II  
KEN COMBS

STREET UTILITY I  
MIKE ARMER

STREET UTILITY I  
CRAIG QUAL

STREET UTILITY I  
JOSH LESSAR

STREET UTILITY I  
AJ MUNSON

STREET UTILITY I  
JOSH ELDRIDGE

STREET UTILITY III  
JAY DANIEL

STREET UTILITY III  
SHANON THOMASSON

STREET UTILITY II  
SHANE JONES

STREET UTILITY II  
JEANNETTE PRINCE

STREET UTILITY I  
DANNY BYRD


STREET UTILITY I  
WILL SMITH

STREET UTILITY III  
JIM LINDSEY

STREET UTILITY II  
JOE NEWTON

STREET UTILITY  
KERRY GOE







**EIPD Director**  
 O 541-317-3029  
 C 541-408-0907  
**Tom Hickmann PE**



**Assistant EIPD Director**  
 O 541-693-2125  
 C 541-280-8890  
**Jeff England PE, PMP**




**Program Manager**  
 O 541-388-5566  
 C 541-213-9851  
**Dana Wilson**



**Executive Assistant**  
 O 541-317-3003  
 C 541-390-5441  
**Adele McAfee**




**Principal Engineer**  
 O 541-388-5538  
 C 541-280-4590  
**Heidi Lansdowne PE**



**Principal Engineer**  
 O 541-317-3040  
 C 541-408-8359  
**Eric Forster PE, PLS, PMP**



**Principal Engineer Inspection Services**  
 O 541-693-2134  
 C 503-332-9956  
**Ryan Oster PE, PMP**




**Principal Engineer**  
 O 541-323-8591  
 C 541-408-6514  
**Joshua Robertson PE**



**Project Engineer**  
 O 541-693-2182  
 C 541-728-3456  
**George Franklet PE**



**Engineering Insp. Office at WRF**  
 O 541-693-2188  
 C 541-280-1305  
**Chris Struck**




**Associate Engineer**  
 O 541-323-8595  
 C TBA  
**Jessica Webster EIT**



**Project Engineer**  
 O 541-323-8596  
 C 802-274-0088  
**Garrett Sabourin PE**



**Engineering Inspector**  
 O 541-388-5559  
 C 541-280-0168  
**Chad Towell**



**Project Engineer**  
 O  
 C  
**Vacant**



**Project Engineer**  
 O 541-317-3053  
 C 541-678-3813  
**Jason Suhr PE, PMP**



**Engineering Inspector**  
 O 541-388-5565  
 C 541-480-9490  
**Bret Dalrymple**



**Engineering Inspector**  
 O 541-323-8592  
 C 541-903-0811  
**Patrick Konop**



**Engineering Tech II**  
 O 541-693-2183  
**Oliver Murray**



**Engineering Tech 1 Office at Outback**  
 O 541-388-5558  
 C 541-420-5253  
**Cindy Hartman**



**Engineering Tech II**  
 O 541-388-5578  
**Peggy Spencer**



**Office Specialist II**  
 O 541-323-8597  
**Charanne Graham**

**Engineering**

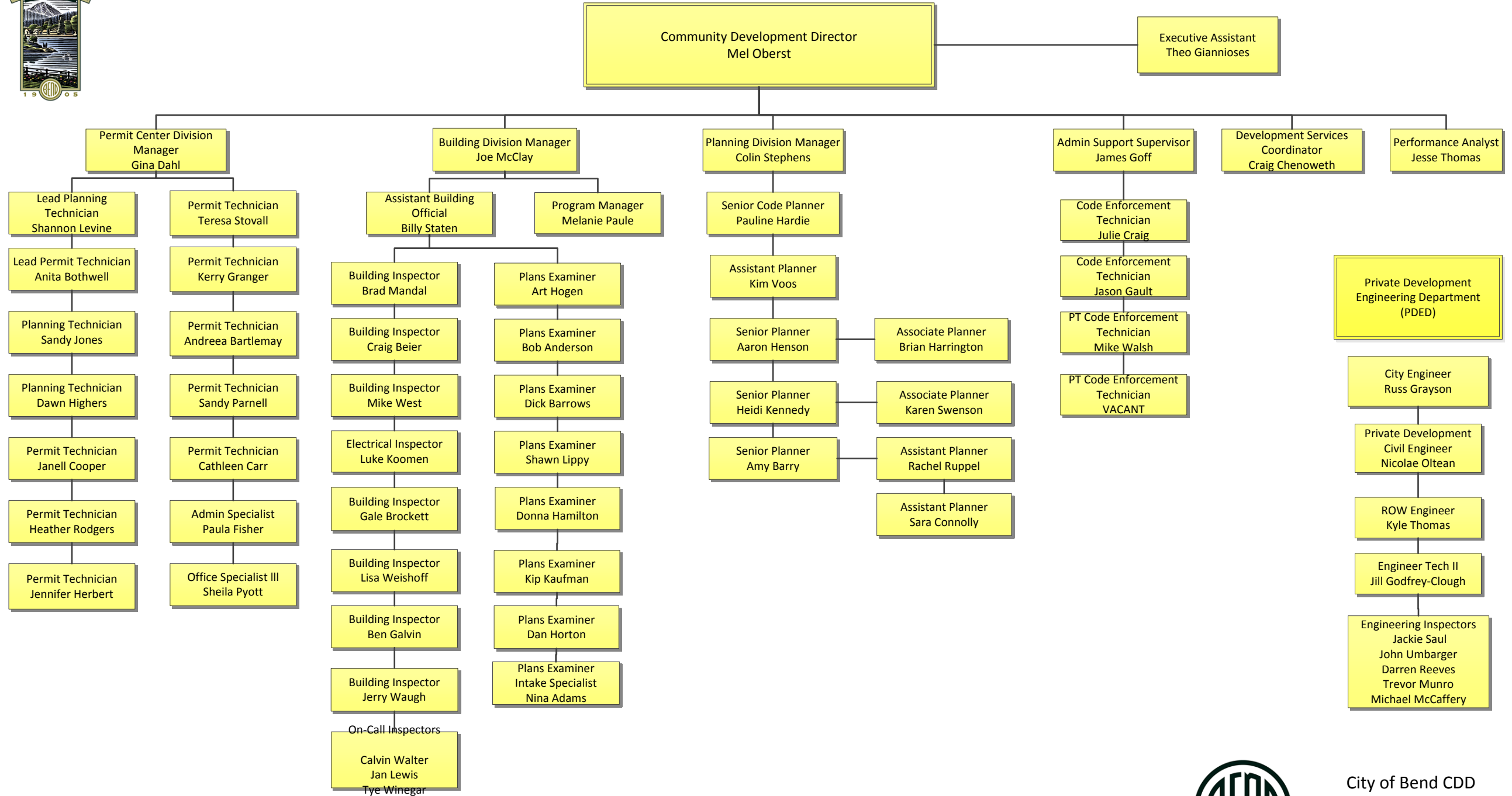
**Technical Support Services**

**Department Admin Support**





# Community Development Department and Private Development Engineering Department



# MEMORANDUM

710 WALL STREET  
PO BOX 431  
BEND, OR 97709  
[541] 388-5505  
TEL  
[541] 388-5519  
FAX  
www.ci.bend.or.us

TO: MAYOR AND CITY COUNCIL  
FROM: ERIC KING  
SUBJECT: WEEKLY REPORT  
DATE: NOVEMBER 7, 2014



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## **Upcoming City Council Meetings and Other Events**

- November 19, Work Session at 5:00 p.m., Regular Session at 7 p.m. at City Hall in the Council Chambers

## **Holiday Party**

Please save the date for the City of Bend Employee Holiday Party and charity raffle Tuesday, December 9 from 11:30 am - 1:30 pm at the Elks Lodge (63120 Boyd Acres Rd).

## **Mirror Pond Overview**

A draft from today's discussion on Mirror Pond is attached. The meeting was well attended. Ad hoc committee members will be meeting with community groups and other stakeholders over the next few months to continue to receive feedback on this plan.

## **Stormwater Quality Annual Report Submitted**

On October 31, the City submitted the Fiscal Year 2013-2014 Stormwater Quality Annual Report to the Oregon Department of Environmental Quality per the requirements of the City's National Pollutant Discharge Elimination System Permit and its Underground Injection Control Water Pollution Control Facility Permit. The report covers the City's activities to minimize stormwater pollutants from impacting water resources during the period July 1, 2013 through June 30, 2014. It also provides a status report on implementation of the activities in the City's Integrated Stormwater Management Plans, and covers overall program administration, planning and financing; public education and involvement; illicit discharge detection and elimination; construction and post construction stormwater management; municipal operations, monitoring, and drinking water protection from stormwater. A copy of the report is available on the City's website at: [www.bendoregon.gov/stormannualreport](http://www.bendoregon.gov/stormannualreport).

## **End of Week Election Updates**

Doug Riggs shared the following election update:

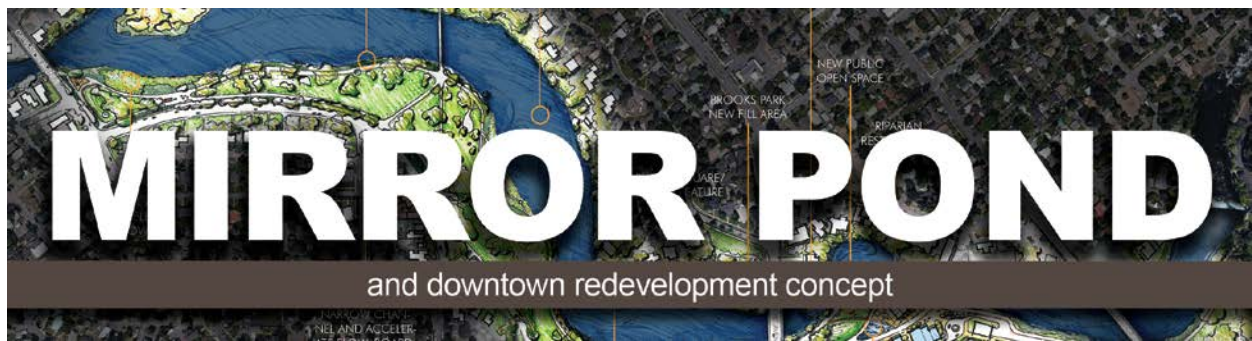
- The Senate District 15 race between Bruce Starr and Chuck Riley has been too close to call for much of the week.
- As of 3:30 pm on Friday, Riley has a lead of only 13 votes. This puts the race within the margin that triggers an automatic re-count. Washington County Elections Division expects to post more information at 8 pm tonight.

- If Democrat Chuck Riley wins this seat it gives the Senator Democrats an 18-12 majority in the Senate, giving them the 3/5 super majority required to pass revenue increases. The House however is still one vote shy, with the Democrats holding a 35/25 majority.

**Attachments:**

- Future Council Schedule
- Monthly Fire Department Report
- Draft Mirror Pond and Downtown Redevelopment Concept





November 7, 2014

## OVERVIEW

After several years of public engagement and technical exploration, the Mirror Pond Ad Hoc Committee is proposing a concept for the future of Mirror Pond for public input. The concept detailed in this summary satisfies stakeholders who wish to retain Mirror Pond and those who wish to see a more free-flowing river with enhanced wildlife habitat. This concept, called the Mirror Pond and Downtown Redevelopment Concept also offers a vision for the renewal of a critical area in Bend's downtown core, with opportunities for new parks, restaurants and mixed-use development. The concept will not increase taxes and would be funded and managed by a partnership between the City of Bend, Bend Park and Recreation District, PacifiCorp and the private sector.

## UNDERSTANDING THE PROBLEM

- Mirror Pond is a collector for sediment flowing through the Deschutes River, which backs up into the pond behind Newport Avenue Dam, owned by PacifiCorp. This sediment build-up, if left alone, would eventually create a wetland, picturesque views would be diminished and river recreation would be impacted.
- The pond was last dredged in 1984 to remove sediment. In recent years, a need to address the sediment build-up became increasingly acute.
- Stakeholders have been divided on the best way to address sediment build-up, leading to an extensive community-wide debate on the future of Mirror Pond.
- Factors influencing the debate include:
  - The PacifiCorp-owned dam is 100 years old and no longer produces adequate power to justify continued corporate investment.
  - When dredging last occurred in 1984 there were fewer regulatory requirements. Today, regulatory requirements make dredging challenging and more costly.
  - The dam is in poor condition; repairs will be costly.

- The land under the pond is owned by a family trust of one of the founding families of Bend. Two local citizens have an option to purchase the land in order to help shepherd a solution.
- Neither the City of Bend nor the Park and Recreation District (BPRD) have ownership of the pond.
- BPRD owns approximately 60% of land adjacent to Mirror Pond between Newport and Galveston Avenues.

## DEVELOPING A SOLUTION

- The Mirror Pond Steering Committee was created to oversee the development of a series of scenarios to address the sediment build-up in Mirror Pond.
- A Mirror Pond Technical Advisory committee provided scientific input and data from which to base the alternative scenarios.
- Scientifically based illustrations were developed to depict the scenarios.
- The scenarios were taken to the public for input.
- Community meetings and on-line surveys resulted in input from over 4,000 people.
- Community input indicated a division between those who preferred the river to flow in a more natural-like manner versus those who preferred the current look of the pond be maintained.
- While respondent first choice interests were divided between keeping the pond and returning the river to a natural-like path, there was a second choice scenario that satisfied most respondents. It maintained the pond while improving wildlife habitat and providing fish passage.
- Results also indicated seven community interests that were shared respondents, including:
  - Maintaining the historic character and picturesque appeal of Mirror Pond.
  - Maintaining or improving public spaces.
  - Enhancing natural habitat.
  - Providing fish passage.
  - Reducing the quantity of sediment deposited in the river/pond.
  - Reducing the frequency that the pond needs to be dredged.
  - Identifying funding with minimal burden on taxpayers.
- Following extensive community input, the Mirror Pond Ad Hoc Committee, made up of representatives from the City of Bend, Bend Park and Recreation District and citizens, was tasked with reviewing public input and working with PacifiCorp regarding the future of the dam and exploring possible solutions that would address shared community values. The Mirror Pond and Downtown Riverfront Redevelopment concept resulted from this work.

## THE MIRROR POND AND DOWNTOWN REDEVELOPMENT CONCEPT

The Mirror Pond Ad Hoc Committee is proposing for community consideration a project that preserves Mirror Pond, allows for a more free-flowing river, creates wildlife habitat and will encourage dynamic riverfront mixed-use development in downtown Bend.

### **Concept Outcomes**

- PacifiCorp would divest from their power production interests at the site by relinquishing ownership of the dam and moving the substation to another Bend location. A sub-committee of the Mirror Pond Ad Hoc Committee is currently in communication with PacifiCorp regarding this scenario.
- PacifiCorp would gift the dam to a public entity (City and/or Park District) who would then oversee conversion of the dam into a water impoundment constructed as a series of pools and riffles in the river. This new impoundment would cause a rise in the river water level behind it, resulting in the preservation of Mirror Pond near its average historic level.
- The new pools and riffles would provide fish passage where none exist today.
- The banks along the river would be reshaped to help to reduce sediment buildup and enhance habitat.
- Pacific Park, the two Mirror Pond parking lots, and PacifiCorp's powerhouse, parking lot and substation would be repurposed into new mixed use development including public spaces, plazas, restaurants, small businesses, housing and public parking.
- Private property owners in the area would see value in redevelopment as a means to enhance their investments and support the community's economic vitality.
- The Deschutes River Trail would wind through downtown Bend, connecting people to parks, schools and business.
- A public-private partnership involving the City of Bend, Park District, PacifiCorp and private sector interests would lead and fund redevelopment.
  - The Park District's role would include selling what is now Pacific Park and using the funds generated to create a new Pacific Park near what is now the substation, improving the Deschutes River Trail through Bend's urban core, and creating new public places.
  - The City's role would include encouraging development on what are now the two Mirror Pond parking lots, updating storm water systems, and building a new parking structure. Funds would be generated by a combination of proceeds from land sales/rent, the formation of an urban renewal district, and/or development fees.
  - PacifiCorp's role would be to divest in the dam and substation.
  - Private development's role would be to invest in new mixed use development, including retail, commercial/office and housing.

## NEXT STEPS

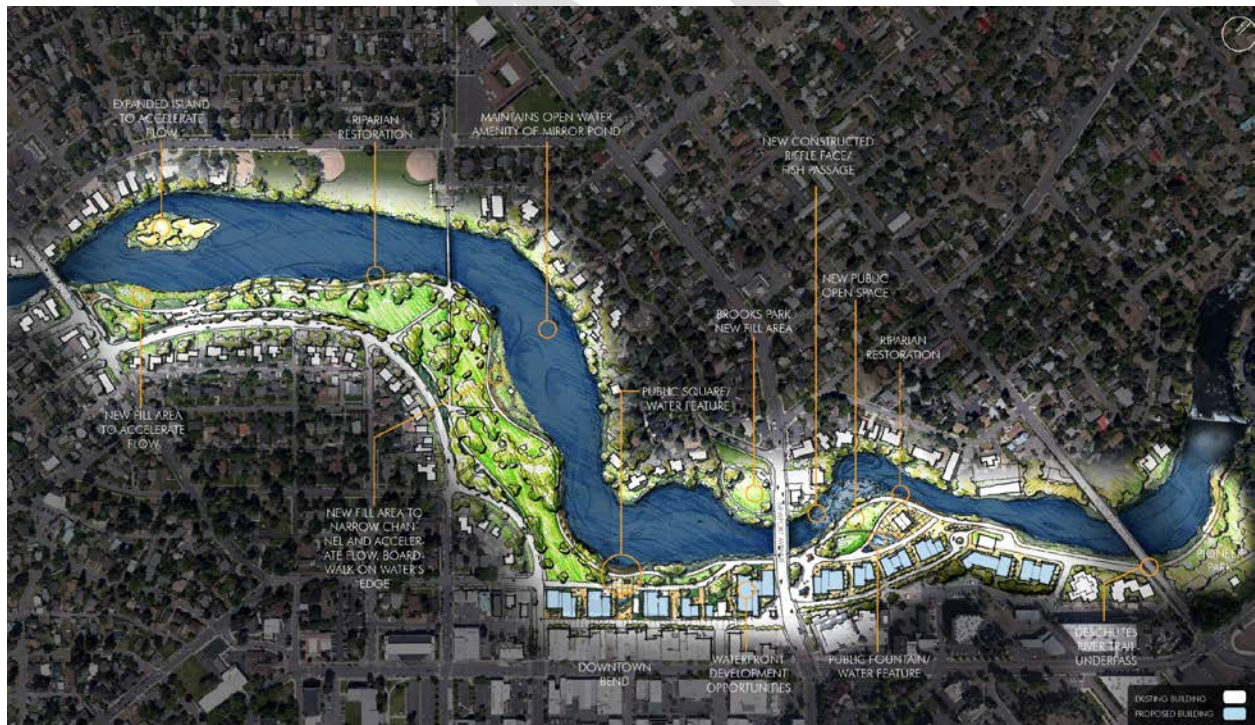
The Mirror Pond Ad Hoc committee is inviting the community to give input on the Mirror Pond and Downtown Redevelopment Concept. Should the concept receive widespread support, an independent consortium would be formed to oversee a development plan. The City and Park District would lead the elements of the project on public lands and make improvements to the dam and pond.

## PUBLIC INPUT

A public input period on the proposed concept will be open from November 2014 to January 2015. The public may offer input through the following opportunities:

- The Mirror Pond website - [www.mirrorpondbend.com](http://www.mirrorpondbend.com)
- Public meetings – dates/locations TBD
- Other outreach opportunities to be advertised through TV, radio, news and social media.

## **Illustration of the Mirror Pond and Downtown Redevelopment Concept**





## Illustration of the Mirror Pond and Downtown Redevelopment Concept

Features include:

- Buildings indicated in blue are envisioned for redevelopment along the river.
- New public space exists where the dam and substation currently exist.
- Conversion of the dam into an impoundment, constructed of a series of new pools and riffles that preserve Mirror Pond and provides fish passage.
- The historic powerhouse is repurposed into a restaurant or other business.
- Brooks Park is expanded, narrowing the river channel.
- The Deschutes River Trail connects new development with downtown.
- Public plazas and viewsapes maintain connection with the riverfront.
- The banks along the river provide habitat for nature.

Your opinion matters. Please go to the Mirror Pond website and share your perspective.

Go to [www.mirrorpondbend.com](http://www.mirrorpondbend.com)





**CITY OF BEND**  
**2015 - 2017**  
**ADOPTED BIENNIAL BUDGET**  
FOR BUDGET PERIOD JULY 1, 2015 - JUNE 30, 2017



## Stormwater Program

	ACTUALS 2011-13	ADJUSTED BUDGET 2013-15	ESTIMATE 2013-15	BIENNIAL BUDGET		
				PROPOSED 2015-17	APPROVED 2015-17	ADOPTED 2015-17
<b>RESOURCES</b>						
Beginning working capital	\$ 4,108,372	\$ 4,936,400	\$ 5,041,815	\$ 3,205,200	\$ 3,205,200	\$ 3,457,200
Intergovernmental revenues	-	-	-	-	-	-
Charges for services	5,022,254	5,145,100	5,111,415	6,592,900	6,592,900	6,592,900
Intergovernmental revenues	5,296	-	-	-	-	-
Interfund charges	30,477	30,800	31,860	34,400	34,400	34,400
Interfund transfers	-	-	-	39,840	39,840	39,840
Investment income	67,318	55,100	49,871	61,500	61,500	61,500
Miscellaneous	298	200	3,896	1,800	1,800	1,800
Issuance of long-term debt	-	-	-	-	-	-
<b>TOTAL RESOURCES</b>	<b>\$ 9,234,015</b>	<b>\$ 10,167,600</b>	<b>\$ 10,238,857</b>	<b>\$ 9,935,640</b>	<b>\$ 9,935,640</b>	<b>\$ 10,187,640</b>

	ACTUALS 2011-13	ADJUSTED BUDGET 2013-15	ESTIMATE 2013-15	BIENNIAL BUDGET		
				PROPOSED 2015-17	APPROVED 2015-17	ADOPTED 2015-17
<b>REQUIREMENTS</b>						
<i><b>By Program:</b></i>						
Operations and maintenance	\$ 4,192,201	\$ 8,045,615	\$ 6,781,729	\$ 6,012,077	\$ 6,012,077	\$ 6,339,077
Regulatory	-	-	-	947,583	947,583	947,583
Contingency	-	591,000	-	800,000	800,000	800,000
Reserves for:						
Future construction	-	1,530,985	-	2,175,980	2,175,980	2,100,980
<b>TOTAL REQUIREMENTS</b>	<b>\$ 4,192,201</b>	<b>\$ 10,167,600</b>	<b>\$ 6,781,729</b>	<b>\$ 9,935,640</b>	<b>\$ 9,935,640</b>	<b>\$ 10,187,640</b>
<i><b>By Type:</b></i>						
Personnel services	\$ 1,674,201	\$ 1,816,864	\$ 1,790,923	\$ 2,562,220	\$ 2,562,220	\$ 2,562,220
Materials and services	417,440	942,285	882,685	1,147,620	1,147,620	1,147,620
Interfund transfers	989,265	1,924,466	1,717,251	1,804,820	1,804,820	1,879,820
Capital outlay:						
Vehicle/equipment	47,820	240,000	261,121	420,000	420,000	420,000
Repairs and maintenance	-	50,000	50,000	250,000	250,000	250,000
Construction/infrastructure	945,237	3,072,000	2,079,749	775,000	775,000	1,027,000
Total capital outlay	993,057	3,362,000	2,390,870	1,445,000	1,445,000	1,697,000
Debt service	118,238	-	-	-	-	-
Contingency	-	591,000	-	800,000	800,000	800,000
Reserves for future construction	-	1,530,985	-	2,175,980	2,175,980	2,100,980
<b>TOTAL REQUIREMENTS</b>	<b>\$ 4,192,201</b>	<b>\$ 10,167,600</b>	<b>\$ 6,781,729</b>	<b>\$ 9,935,640</b>	<b>\$ 9,935,640</b>	<b>\$ 10,187,640</b>



## **INFRASTRUCTURE** **Stormwater Program**

### Overview

The Stormwater program has the primary responsibility of maintaining, repairing and expanding the Stormwater system while complying with mandates from the federal and state government, including the:

- ✧ National Pollutant Discharge Elimination System (NPDES) Municipal Separate Storm Sewer (MS4) Phase II stormwater permit; and
- ✧ Underground Injection Control (UIC) Water Pollution Control Facilities (WPCF) permit

Activities within the division include catch basin, pipeline, drill hole and dry well operation and maintenance; stormwater treatment control operation and maintenance; property and public safety with respect to stormwater/flood control; stormwater quality protection; public education and involvement; and a capital improvement program.

Effective implementation of stormwater activities and controls requires a cross-departmental effort. Currently a number of stormwater activities are coordinated with the Right of Way Operation and Maintenance Department; the Growth Management Department; the Planning, Engineering and Building divisions of the Community Development Department; and with staff in the Engineering and Infrastructure Planning Department. Illicit discharges and spill response are coordinated with the Police and Fire Departments.

### **Stormwater Operations and Maintenance Program**

The Stormwater Operations and Maintenance program provides for the maintenance and repair of stormwater infrastructure, including pipe and catchbasin repair, drillhole reconditioning, water quality controls, and system cleaning. This program pays for system operation, including emergency response during flooding events. This program also funds a portion of the City street sweeping program, which removes sediment from streets and stormwater runoff thereby protecting catchbasin and drillhole operations from prematurely failing.

	ACTUALS		ESTIMATE		ADOPTED BUDGET		
	2013-14	2014-15	2015-16	2016-17	2015-17		
Personnel services	\$ 888,671	\$ 902,252	\$ 959,730	\$ 991,471	\$ 1,951,201		
Materials and services	305,048	577,637	434,353	426,703	861,056		
Interfund transfers	831,555	885,696	1,033,870	845,950	1,879,820		
Capital outlay:							
Vehicle/equipment	210,921	50,200	320,000	50,000	370,000		
Repairs and maintenance	-	50,000	100,000	150,000	250,000		
Construction/infrastructure	2,066,249	13,500	927,000	100,000	1,027,000		
<b>Operations &amp; Maintenance</b>	<b>\$ 4,302,444</b>	<b>\$ 2,479,285</b>	<b>\$ 3,774,953</b>	<b>\$ 2,564,124</b>	<b>\$ 6,339,077</b>		
<b>Full Time Equivalent</b>	9.21	9.21	9.56	9.56	9.56		

### Goals for the 2015– 2017 Biennial Budget

- ✧ Efficiently operate and maintain the Stormwater System
- ✧ Complete all maintenance as required by the WPCF and NPDES permits
- ✧ Implement the Stormwater Master Plan and Capital Maintenance Plan

- ✘ Fully integrate Asset Management into the Stormwater Maintenance Plan
- ✘ Complete the Drake and Dohema stormwater pumping station

#### Key Operational Objectives for the 2015 – 2017 Biennial Budget

- ✘ Complete drillhole reconditioning at ten localized flooding sites
- ✘ Fully integrate Stormwater Utility staff into the revised job descriptions and training
- ✘ Implement the Stormwater master plan. Complete Capital Improvement Program and Capital Maintenance projects including modelling and design of the West Hills Drainage basin and complete pipe maintenance repair projects
- ✘ Begin Open-top Dry Well replacement project
- ✘ Complete system repair according to integrated capital maintenance plan
- ✘ Begin maintenance of stormwater systems at City owned facilities (Police, Fire, Downtown Campus, and Boyd Acres Campus)

#### Major Accomplishments during the 2013 – 2015 Biennial Budget

- ✘ Cleaned and/or inspected all stormwater facilities, meeting permit compliance needs
- ✘ Reconditioned sixteen drillholes to reduce flooding in localized areas
- ✘ Completed stormwater conveyance improvements in the West Hills
- ✘ Integrated Operations staff into the Utility Department and moved to the Boyd Acres Campus
- ✘ Updated, ranked and prioritized flooding response to better help coordinate City flood response
- ✘ Responded during several flood events, preventing damage to properties and improving street safety
- ✘ Innovated new internal cleaning methods for drillholes and devices to keep sediment out of the storm system
- ✘ Developed 20 year financial plan

#### Significant Changes from the 2013 – 2015 Biennial Budget

- ✘ New one (1) Utility Worker FTE in fiscal year 2015-16
- ✘ Capital and repair and maintenance includes funding for projects as allocated in the new Stormwater Master Plan
- ✘ Electricity increases are budgeted to account for a new lift station
- ✘ Dissolution of Public Works Administration Fund resulted in reallocation of administrative personnel expenses directly to the Stormwater, Water and Water Reclamation operating programs
- ✘ Reduction of 50% in temporary employee help due to addition of new FTE

#### Major Capital Projects / Equipment Purchases for 2015 – 2017 Biennial Budget

- ✘ 2015-2016
  - Two (2) Replacement Work Trucks \$80,000
  - One (1) New Sweeper \$240,000
- ✘ 2016-2017
  - One (1) Replacement Work Truck \$50,000

**Stormwater Regulatory Program**

The Stormwater Regulatory program focuses on ensuring water quality of the Deschutes River and underground drinking water aquifers by means of the minimization of stormwater pollution. This program includes coordinating compliance efforts with the City’s permits for stormwater that is directed to surface water and stormwater that is injected underground, along with other regulatory requirements such as Total Maximum Daily Loads (currently under development).

	ACTUALS		ESTIMATE	ADOPTED BUDGET		
	2013-14		2014-15	2015-16	2016-17	2015-17
Personnel services	\$ -		\$ -	\$ 305,082	\$ 305,937	\$ 611,019
Materials and services	-		-	143,132	143,432	286,564
Capital outlay:						
Vehicle/equipment	-		-	50,000	-	50,000
<b>Regulatory</b>	\$ -		\$ -	\$ 498,214	\$ 449,369	\$ 947,583
<b>Full Time Equivalents</b>	-		-	2.70	2.70	2.70

**Goals for the 2015 – 2017 Biennial Budget**

- ✘ Negotiate the reissuance of the City’s NPDES Municipal Separate Storm Sewer System (MS4) permit.
- ✘ Comply with the City’s permits and regulations related to stormwater pollution prevention.

**Key Operational Objectives for the 2015 – 2017 Biennial Budget**

- ✘ Implement Integrated Stormwater Management Plan 2022.
- ✘ Implement Stormwater Master Plan.
- ✘ Implement results of rate model to ensure adequate funding to meet planning goals/regulatory needs
- ✘ Improve regulatory compliance with addition of inspection/enforcement staff person
- ✘ Be innovative in conducting outreach and public participation program to address multiple regulatory requirements in an incentive-based manner to increase effectiveness

**Major Accomplishments during the 2013 – 2015 Biennial Budget**

- ✘ City’s first formal Stormwater Master Plan was adopted by Council (August 2014)
- ✘ City’s first Stormwater Public Facilities Plan was adopted by Council (December 2014)
- ✘ Construction of the Third Street Underpass project
- ✘ City has completed regulatory requirements and provided all regulatory submittals on time

**Significant Changes from the 2013 – 2015 Biennial Budget**

- ✘ A new subprogram in the Stormwater Program has been created for Regulatory Compliance
- ✘ New one (1) Code Enforcement Technician FTE in fiscal year 2015-16

Major Capital Projects / Equipment Purchases for 2015 – 2017 Biennial Budget

- ✧ 2015-2016
  - One (1) Replacement SUV \$25,000
  - One (1) New SUV \$25,000
  
- ✧ 2016-2017
  - None

**INFRASTRUCTURE  
Stormwater Program**

**PERFORMANCE MEASURES**

	ACTUALS 2012-13	ACTUALS 2013-14	ESTIMATE 2014-15	TARGET 2015-16	TARGET 2016-17
<b>Output Measures:</b>					
# of outreach materials distributed	1	1	1	1	1
Yards of debris removed	13,284	18,325	18,400	19,000	19,000
Storm drains cleaned/inspected	10,132	10,996	11,000	11,000	11,000
UICs cleaned/inspected	5,976	6,547	6,500	7,000	7,500
# of UICs upgraded for spill control	N/A	94	100	100	100
# of maintenance repairs (e.g. catch basin replacements/upgrades, redrill drill holes, etc.)	599	506	600	700	700
<b>Effectiveness Measures:</b>					
Average number of service/work orders per employee per month	243	586	500	500	500
<b>Efficiency Measures:</b>					
Planned Maintenance (%) <sup>1</sup>	27%	35%	35%	45%	45%
Customer per FTE	3,414	3,499	3,538	2,935	2,975
Stormwater Fee per Equivalent Dwelling Unit	\$ 4.00	\$ 4.00	\$ 4.00	\$ 5.00	\$ 5.15

Note <sup>1</sup> Measurement tracking of Planned Maintenance has changed to be in alignment with AWWA standards.

**FIVE YEAR VEHICLE AND EQUIPMENT PLAN**

	2015-16	2016-17	2017-18	2018-19	2019-20
One (1) Vector replacement	\$ -	\$ -	\$ 400,000	\$ -	\$ -
Two (2) Work Truck replacements	80,000	-	-	-	-
One (1) Work Truck replacement	-	50,000	-	-	-
One (1) Sweeper new	240,000	-	-	-	240,000
One (1) SUV replacement	25,000	-	-	-	-
One (1) SUV new	25,000	-	-	-	-
<b>Total</b>	<b>\$ 370,000</b>	<b>\$ 50,000</b>	<b>\$ 400,000</b>	<b>\$ -</b>	<b>\$ 240,000</b>

**FIVE YEAR R&M CAPITAL PROJECTS PLAN**

	2015-16	2016-17	2017-18	2018-19	2019-20
System Repair - Flooding Projects	\$ 100,000	\$ 150,000	\$ 150,000	\$ 150,000	\$ 150,000
<b>Total</b>	<b>\$ 100,000</b>	<b>\$ 150,000</b>	<b>\$ 150,000</b>	<b>\$ 150,000</b>	<b>\$ 150,000</b>

**Stormwater**  
**Five Year Capital Improvement Program (CIP) Schedule**

	Cost Estimate Classification *	Cost Estimate					5 Year Total
		2015-16	2016-17	2017-18	2018-19	2019-20	
SR0802 Drake and Dohema Pump Station	1	\$ 172,000	\$ -	\$ -	\$ -	\$ -	\$ 172,000
SR09AA Third Street Underpass	1	55,000	-	-	-	-	55,000
SR14AA Phase 2 3rd Street - Stormwater portion	5	400,000	-	-	-	-	400,000
SR15AA Butte and Hillside Drainage Specific Plans	5	150,000	100,000	-	-	-	250,000
SR15BA South 3rd Street - Stormwater portion	4	150,000	-	-	-	-	150,000
SR15CA Newport Pipe Replacement Design	5	-	-	-	425,000	-	425,000
<b>Total Stormwater CIP</b>		<b>\$ 927,000</b>	<b>\$ 100,000</b>	<b>\$ -</b>	<b>\$ 425,000</b>	<b>\$ -</b>	<b>\$ 1,452,000</b>

\* Cost estimate classifications are based on standards developed by the Association for the Advancement of Cost Engineering International (AACE)

Estimate Class	Purpose	Project Definition Level	Cost Est. Range
Class 5	Concept or Feasibility	0% to 2%	+100% / -50%
Class 4	Preliminary Engineering	1% to 15%	+50% / -30%
Class 3	Semi-Detailed (30-60% Design)	10% to 40%	+30% / -20%
Class 2	Detailed (60-90% Design)	30% to 70%	+20% / -15%
Class 1	Final (100% Design)	50% to 100%	+15% / -10%
N/A	Not Applicable (For Studies Only)		

**Stormwater**  
**Five Year Capital Improvement Program (CIP) Schedule**

	Cost Estimate Classification *	Cost Estimate					5 Year Total
		2015-16	2016-17	2017-18	2018-19	2019-20	
SR0802 Drake and Dohema Pump Station	1	\$ 172,000	\$ -	\$ -	\$ -	\$ -	\$ 172,000
SR09AA Third Street Underpass	1	55,000	-	-	-	-	55,000
SR14AA Phase 2 3rd Street - Stormwater portion	5	400,000	-	-	-	-	400,000
SR15AA Butte and Hillside Drainage Specific Plans	5	150,000	100,000	-	-	-	250,000
SR15BA South 3rd Street - Stormwater portion	4	150,000	-	-	-	-	150,000
SR15CA Newport Pipe Replacement Design	5	-	-	-	425,000	-	425,000
<b>Total Stormwater CIP</b>		<b>\$ 927,000</b>	<b>\$ 100,000</b>	<b>\$ -</b>	<b>\$ 425,000</b>	<b>\$ -</b>	<b>\$ 1,452,000</b>

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Estimate Class	Purpose	Project Definition Level	Cost Est. Range
Class 5	Concept or Feasibility	0% to 2%	+100% / -50%
Class 4	Preliminary Engineering	1% to 15%	+50% / -30%
Class 3	Semi-Detailed (30-60% Design)	10% to 40%	+30% / -20%
Class 2	Detailed (60-90% Design)	30% to 70%	+20% / -15%
Class 1	Final (100% Design)	50% to 100%	+15% / -10%
N/A	Not Applicable (For Studies Only)		

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# Engineering & Infrastructure Planning Department

## Capital Improvement Program Project Summary

CIP Fiscal Years 2015/16 – 2019/20

SUMMARY		KEY DATES	
<b>Project Title:</b>	Drake and Dohema Pump Station	<b>Budget Period:</b>	2015 – 2017
<b>Project #:</b>	SR0802	<b>Total Project Est:</b>	\$404,686
<b>Project Type:</b>	Stormwater	<b>Target Start Date:</b>	04/01/2011
<b>Project Fund:</b>	Stormwater Fund	<b>Target Completion:</b>	04/15/2017
<b>Project Manager:</b>	Suhr, Jason	<b>METHOD OF FINANCING</b>	
<b>Cost Estimate Classification:</b>	1 (Final 100% Design)	TYPE	PERCENTAGE
<b>Status:</b>	Open	Stormwater Utility Fee	100%
<b>Stage:</b>	Design		

### DESCRIPTION

The collection system, force mains and treatment swale have been constructed. The remaining work includes installation of a control panel, minor conduit work, and a pump system.

### NEED/JUSTIFICATION

A nine acre basin drains to the intersection of Drake and Dohema. The existing stormwater system consists of catch basins and drill holes. The existing drill holes fail to take in water, causing flooding. During larger storm events the water floods neighboring basements and has caused significant property damage in the past. The project will help prevent flooding and protect groundwater.

### FINANCIAL NARRATIVE

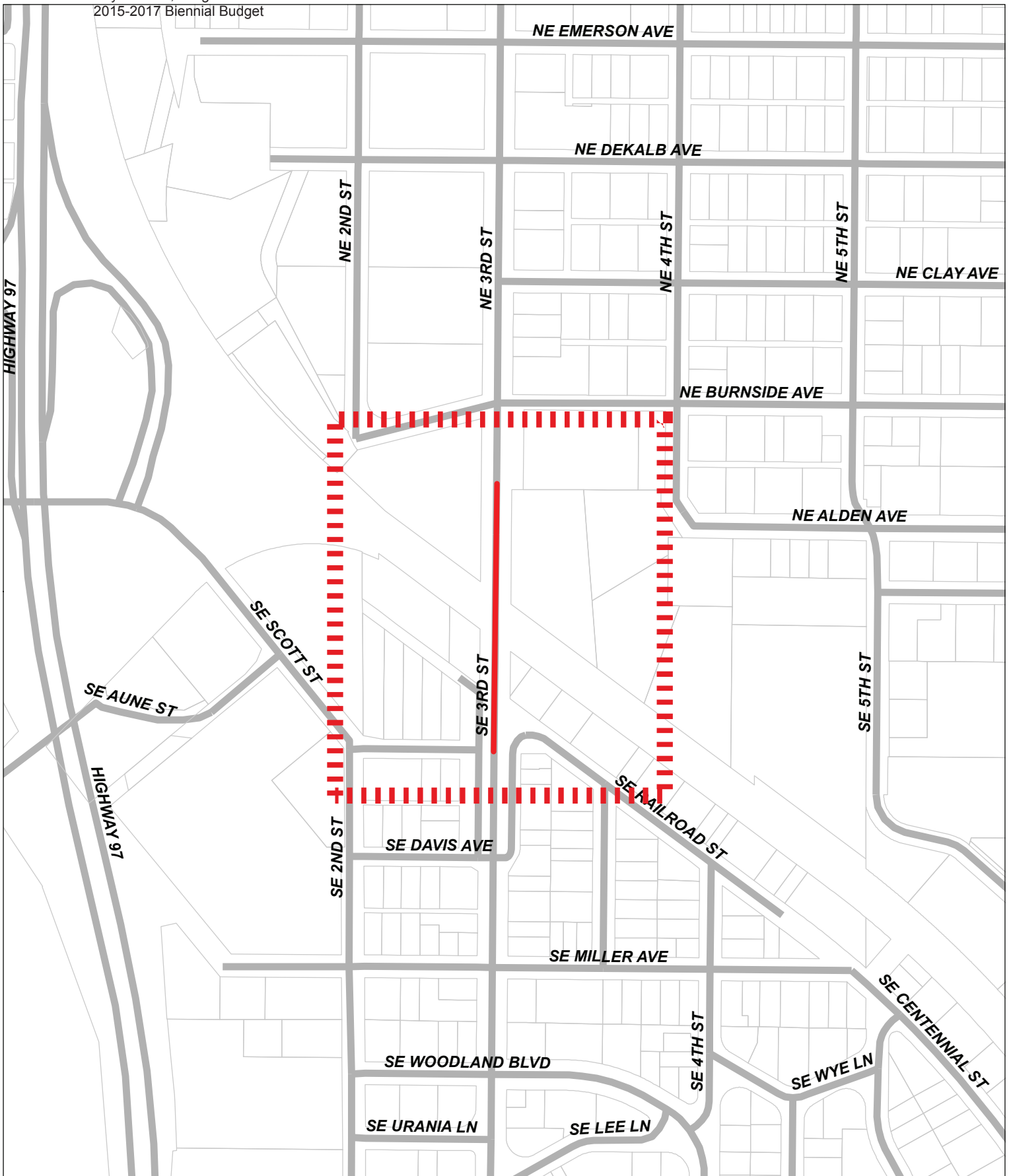
Impact on Annual Operating Budget: None

Consequence of Delaying or Eliminating this Project: Possible neighborhood flooding during larger storm event.

Project Related To: N/A

### PROJECT COST BY FISCAL YEAR

Paid to Date + Estimate thru 6/30/15	2015-16 (Estimated)	2016-17 (Estimated)	2017-18 (Estimated)	2018-19 (Estimated)	2019-20 (Estimated)	Total Estimated
\$217,686	\$172,000	\$ -	\$ -	\$ -	\$ -	\$404,686



## SR09AA 3rd St Underpass

Capital Improvement Projects  
2015/16 - 2019/20



NOT TO SCALE



# Engineering & Infrastructure Planning Department

## Capital Improvement Program Project Summary

CIP Fiscal Years 2015/16 – 2019/20

SUMMARY		KEY DATES	
<b>Project Title:</b>	Third Street Underpass	<b>Budget Period:</b>	2015 – 2017
<b>Project #:</b>	SR09AA	<b>Total Project Est:</b>	\$2,999,008
<b>Project Type:</b>	Stormwater	<b>Target Start Date:</b>	7/1/2008
<b>Project Fund:</b>	Stormwater Fund	<b>Target Completion:</b>	6/30/2016
<b>Project Manager:</b> Forster, Eric		METHOD OF FINANCING	
<b>Cost Estimate Classification:</b>	1 (Final 100% Design)	TYPE	PERCENTAGE
<b>Status:</b>	Open	Stormwater Utility Fee	100%
<b>Stage:</b>	Closeout		

**DESCRIPTION**

The project will include constructing surface swales to reduce the volume of water entering the underpass, abandoning failing drill holes to meet State water quality standards, constructing large capacity storm drains and a lift station to move water out of the underpass, and constructing an off-site storm sewer and detention pond to store and infiltrate stormwater. The swale will be located on ODOT property near the Parkway/Colorado Street interchange.

**NEED/JUSTIFICATION**

Third Street is a vital north-south corridor in the City of Bend. The Third Street Underpass floods during moderate rainfall blocking all traffic for significant lengths of time. The closures block emergency vehicles, regional commercial traffic and local vehicle traffic. The flood waters can be deep creating a public safety hazard. This project will allow the Third Street Underpass to remain open even during intense rain fall events. This will provide for greater safety for all users, including first responders. Lastly, proposed improvements will also reduce the risk of groundwater contamination in the case of a hazardous material spill in the area.

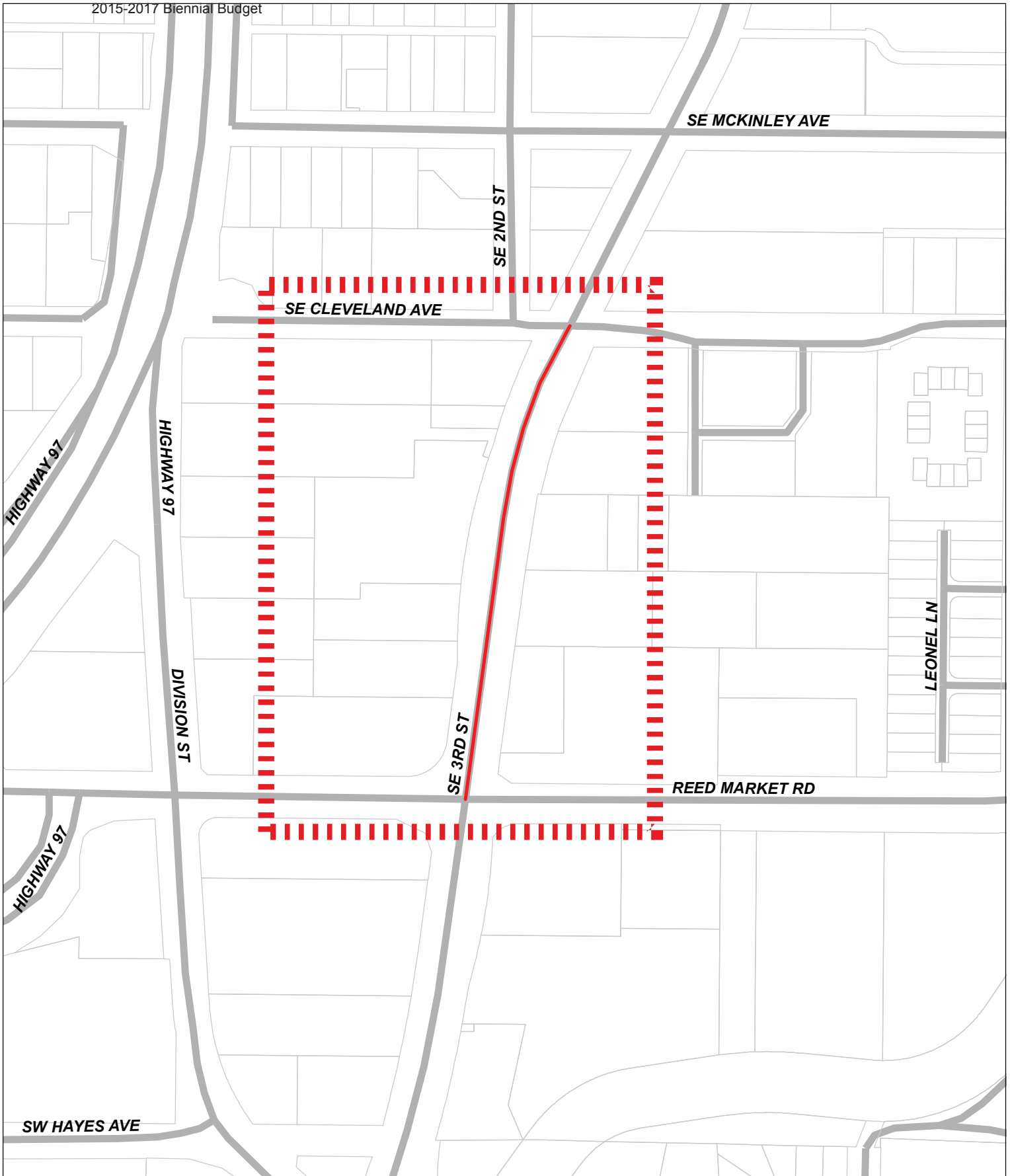
**FINANCIAL NARRATIVE**

Impact on Annual Operating Budget: Adding an enhanced pump station will require periodic maintenance and monthly electricity costs, combined estimate is less than \$10,000 per year.

Consequences of Delaying or Eliminating this Project: This project is substantially complete.

Project Related To: N/A

PROJECT COST BY FISCAL YEAR						
Paid to Date + Estimate thru 6/30/15	2015-16 (Estimated)	2016-17 (Estimated)	2017-18 (Estimated)	2018-19 (Estimated)	2019-20 (Estimated)	Total Estimated
<b>\$2,944,008</b>	<b>\$55,000</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$2,999,008</b>



## SR14AA Phase 2 3rd St - Stormwater portion

Capital Improvement Projects  
2015/16 - 2019/20



NOT TO SCALE



# Engineering & Infrastructure Planning Department

## Capital Improvement Program Project Summary

CIP Fiscal Years 2015/16 – 2019/20

SUMMARY		KEY DATES				
<b>Project Title:</b>	Phase 2 South 3rd Street - Stormwater Portion	<b>Budget Period:</b>	2015 – 2017			
<b>Project #:</b>	SR14AA	<b>Total Project Est:</b>	\$400,000			
<b>Project Type:</b>	Stormwater	<b>Target Start Date:</b>	3/2/2015			
<b>Project Fund:</b>	Stormwater Fund	<b>Target Completion:</b>	3/31/2016			
<b>Project Manager:</b>	Suhr, Jason	<b>METHOD OF FINANCING</b>				
<b>Cost Estimate Classification:</b>	5 (Conceptual)	TYPE	PERCENTAGE			
<b>Status:</b>	Open	Stormwater Utility Fee		100%		
<b>Stage:</b>	Initiate					
DESCRIPTION						
<p>Analysis of the drainage basin that contributes to the South Third Street and Reed Market Road intersection. Also, this project will assess the performance and condition of the existing stormwater facilities and to determine if additional facilities should be constructed.</p>						
NEED/JUSTIFICATION						
<p>The South Third Street and Reed Market Road intersection is a common flooding area, with a large contributing drainage basin. There are stormwater facilities that exist, but may not perform as efficiently as designed. There may also be a need for additional stormwater mitigation infrastructure to capture and treat runoff.</p>						
FINANCIAL NARRATIVE						
<p>Impact on Annual Operating Budget: None or minimal</p> <p>Consequence of Delaying or Eliminating this Project: Flooding will continue to occur during high rainfall events near the Third Street and Reed Market Road intersection. If the timing is delayed there is potential to have to dig into Third Street after the paving project occurs.</p> <p>Project Related To: South 3<sup>rd</sup> Street Pedestrian Improvements (AA11FA) &amp; Street preservation work</p>						
PROJECT COST BY FISCAL YEAR						
<b>Paid to Date + Estimate thru 6/30/15</b>	<b>2015-16 (Estimated)</b>	<b>2016-17 (Estimated)</b>	<b>2017-18 (Estimated)</b>	<b>2018-19 (Estimated)</b>	<b>2019-20 (Estimated)</b>	<b>Total Estimated</b>
\$ -	\$400,000	\$ -	\$ -	\$ -	\$ -	\$400,000



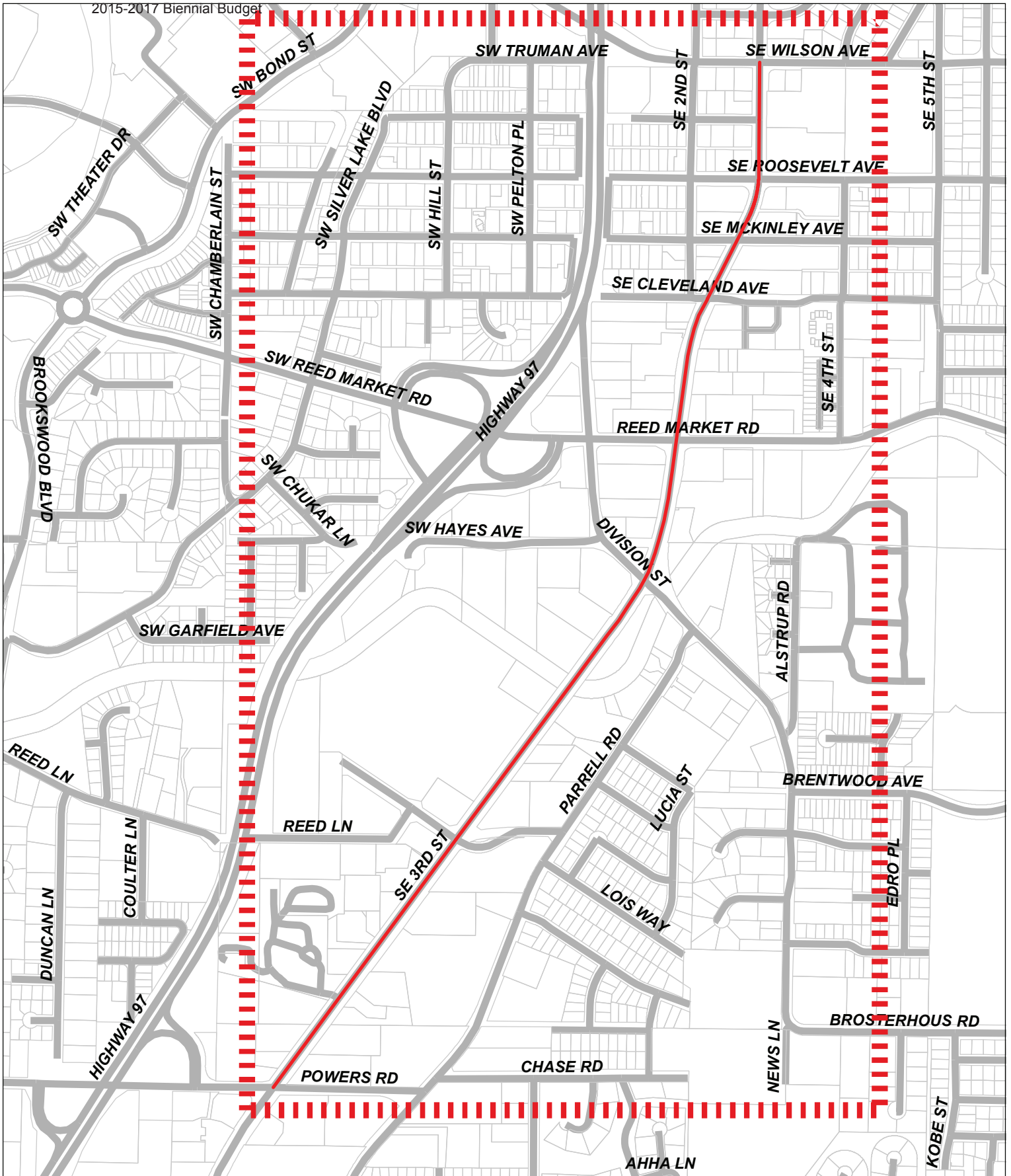


# Engineering & Infrastructure Planning Department

## Capital Improvement Program Project Summary

CIP Fiscal Years 2015/16 – 2019/20

SUMMARY				KEY DATES		
<b>Project Title:</b>	Butte and Hillside Drainage Specific Plans			<b>Budget Period:</b>	2015 – 2017	
<b>Project #:</b>	SR15AA			<b>Total Project Est:</b>	\$250,000	
<b>Project Type:</b>	Stormwater			<b>Target Start Date:</b>	7/1/2015	
<b>Project Fund:</b>	Stormwater Fund			<b>Target Completion:</b>	6/30/2017	
<b>Project Manager:</b>	England, Jeff			<b>METHOD OF FINANCING</b>		
<b>Cost Estimate Classification:</b>	5 (Conceptual)			TYPE	PERCENTAGE	
<b>Status:</b>	Pending			Stormwater Utility Fee		
<b>Stage:</b>	Planning			100%		
DESCRIPTION						
An evaluation will be completed in order to identify areas with run-off problems and complete a modeling effort in order to estimate run-off volumes. This will be the basis for future stormwater system improvements on Awbrey Butte and downstream as well.						
NEED/JUSTIFICATION						
With increased development on Awbrey Butte, drainage issues have increased over the past several years. Development is encroaching on existing natural drainage corridors and have added to the volume of run-off due to increased impervious surfaces.						
FINANCIAL NARRATIVE						
Impact on Annual Operating Budget: None						
Consequence of Delaying or Eliminating this Project: Continued erosion and other run-off related issues.						
Project Related To: N/A						
PROJECT COST BY FISCAL YEAR						
<b>Paid to Date + Estimate thru 6/30/15</b>	<b>2015-16 (Estimated)</b>	<b>2016-17 (Estimated)</b>	<b>2017-18 (Estimated)</b>	<b>2018-19 (Estimated)</b>	<b>2019-20 (Estimated)</b>	<b>Total Estimated</b>
\$ -	\$150,000	\$100,000	\$ -	\$ -	\$ -	\$250,000



## SR15BA South 3rd St - Stormwater portion

Capital Improvement Projects  
2015/16 - 2019/20



NOT TO SCALE





# Engineering & Infrastructure Planning Department

## Capital Improvement Program Project Summary

CIP Fiscal Years 2015/16 – 2019/20

SUMMARY		KEY DATES	
<b>Project Title:</b>	South 3rd Street Pedestrian - Stormwater Portion	<b>Budget Period:</b>	2015 – 2017
<b>Project #:</b>	SR15BA	<b>Total Project Est:</b>	\$150,000
<b>Project Type:</b>	Stormwater	<b>Target Start Date:</b>	7/1/2015
<b>Project Fund:</b>	Stormwater Fund	<b>Target Completion:</b>	6/30/2016
<b>Project Manager:</b>	Suhr, Jason	<b>METHOD OF FINANCING</b>	
<b>Cost Estimate Classification:</b>	4 (Preliminary Engineering)	TYPE	PERCENTAGE
<b>Status:</b>	Open	Stormwater Utility Fee	100%
<b>Stage:</b>	Design		

### DESCRIPTION

Stormwater facility upgrades in coordination with the South Third Street Pedestrian Improvement project (AA11FA). Proposed work includes the conversion of existing catch basins to curb inlets. In conjunction with ODOT.

### NEED/JUSTIFICATION

Coordinate with the South Third Street Pedestrian Improvement project to optimize the construction activities while the sidewalk is being removed and replaced.

### FINANCIAL NARRATIVE

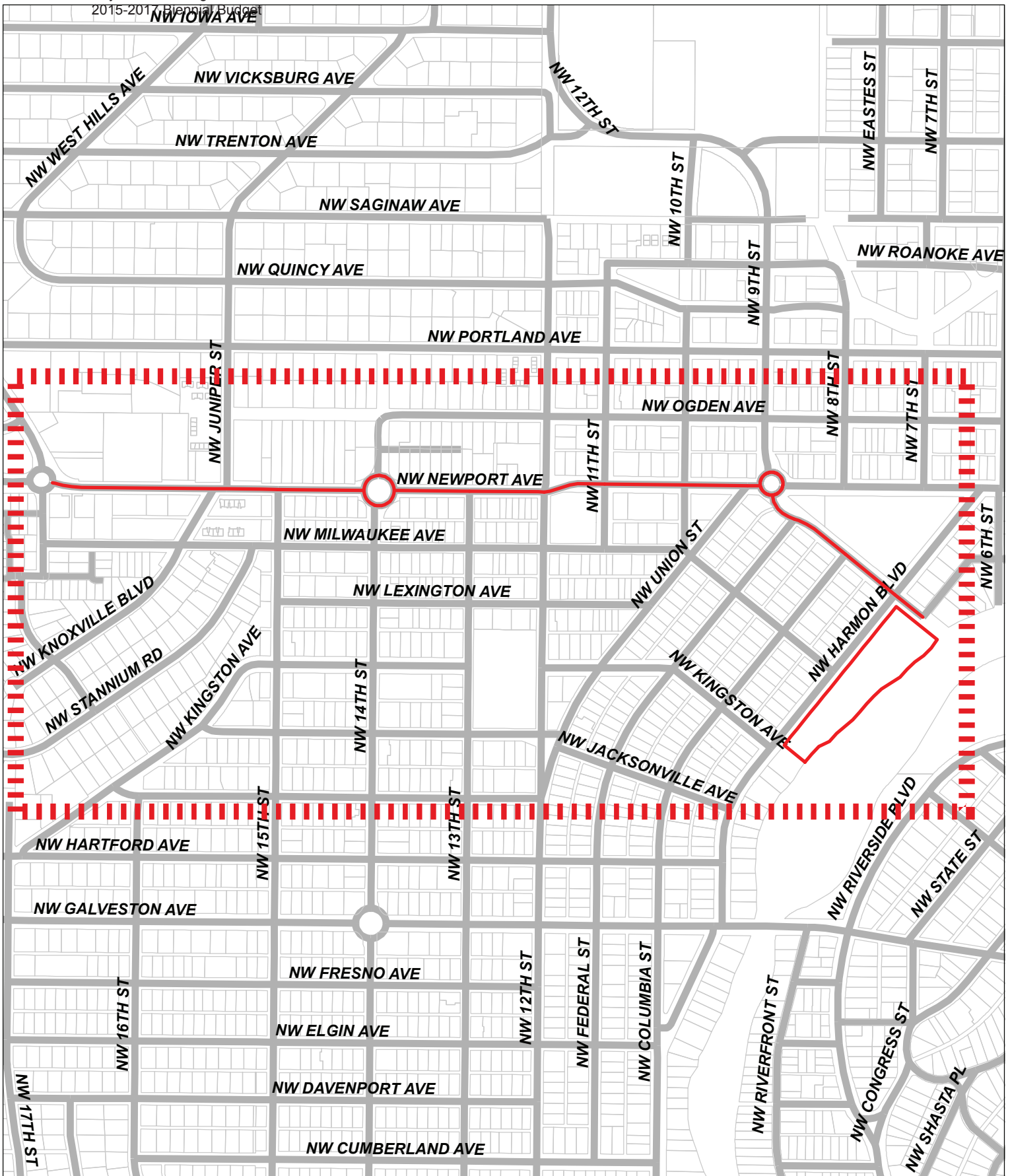
Impact on Annual Operating Budget: No impact on operations budget.

Consequence of Delaying or Eliminating this Project: Flooding will continue to occur during high rainfall events near the Third Street and Reed Market Road intersection

Project Related To: South 3<sup>rd</sup> Street Pedestrian Improvements (AA11FA) & Phase 2 South 3rd Street - Stormwater Portion (SR14AA)

### PROJECT COST BY FISCAL YEAR

Paid to Date + Estimate thru 6/30/15	2015-16 (Estimated)	2016-17 (Estimated)	2017-18 (Estimated)	2018-19 (Estimated)	2019-20 (Estimated)	Total Estimated
\$ -	\$150,000	\$ -	\$ -	\$ -	\$ -	\$150,000



# SR15CA Newport Pipe Replacement Design

Capital Improvement Projects  
2015/16 - 2019/20



NOT TO SCALE



# Engineering & Infrastructure Planning Department

## Capital Improvement Program Project Summary

CIP Fiscal Years 2015/16 – 2019/20

SUMMARY		KEY DATES				
<b>Project Title:</b>	Newport Pipe Replacement Design	<b>Budget Period:</b>	2015 – 2017			
<b>Project #:</b>	SR15CA	<b>Total Project Est:</b>	\$425,000			
<b>Project Type:</b>	Stormwater	<b>Target Start Date:</b>	7/1/2018			
<b>Project Fund:</b>	Stormwater Fund	<b>Target Completion:</b>	6/30/2019			
<b>Project Manager:</b>	Unassigned	<b>METHOD OF FINANCING</b>				
<b>Cost Estimate Classification:</b>	5 (Conceptual)	TYPE	PERCENTAGE			
<b>Status:</b>	Proposed	Stormwater Utility Fee	100%			
<b>Stage:</b>	Planning					
DESCRIPTION						
Project costs will be updated upon completion of the West Hills Basin Design.						
NEED/JUSTIFICATION						
Replace and Rehabilitate sections of existing stormwater piping that are in poor condition.						
FINANCIAL NARRATIVE						
Impact on Annual Operating Budget: Reduces costs of spot fixes to existing pipe line.						
Consequence of Delaying or Eliminating this Project: Further deterioration of existing pipeline and higher costs later						
Project Related To: N/A						
PROJECT COST BY FISCAL YEAR						
Paid to Date + Estimate thru 6/30/15	2015-16 (Estimated)	2016-17 (Estimated)	2017-18 (Estimated)	2018-19 (Estimated)	2019-20 (Estimated)	Total Estimated
\$ -	\$ -	\$ -	\$ -	\$425,000	\$ -	\$425,000

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# Center for Watershed Protection's Stream Restoration as a Pollutant Reduction Strategy

September ~~14~~, 2014  
10

PLEASE SIGN IN

	Print Name	Affiliation	Signature
1	Terry Angle	Angle Consulting Engineering	<i>Terry Angle</i>
2	David Buchanan	City of Bend	<i>David Buchanan</i>
3	Wendy Edde	City of Bend	
4	Jim Guild	Jim Guild Construction	<i>Jim Guild</i>
5	GEORGE FRANKLET	CITY OF BEND EIPD	<i>George Franklet</i>
6			
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# Center for Watershed Protection

## Local TMDLs & Regional/River Basin TMDLs

### A Happy Engagement or a Shotgun Wedding (Webcast)

October 8, 2014 - 10:00am - 12:00pm

	Name	Signature	Department
1	David Frechman	<i>[Signature]</i>	STORM
2	GEORGE FRANKLET	<i>[Signature]</i>	EIPD
3	Wendy Edde	<i>[Signature]</i>	Utility / Stormwater
4			
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# ISWMP 2022 Performance Standards

## Corporation Yards

(See Chapter V.)

Subsection	Performance Standard	Implementation Status			Implementation Date	Comments
		Scheduled	Partial	Full		
GENERAL STANDARDS/ TRAINING	1 Prepare and maintain a current Corporation Yard Stormwater Pollution Prevention Plan (SWPPP).				July 1, 2014	Developed 3/7/11 review and update scheduled in FY2014-15
	2 Prepare spill containment kits and store them in locations that have potential for spills (e.g., fueling areas, etc.). Conduct training annually, or as appropriate, on how to use the kits.				July 1, 2015	
	3 Mark or stencil inlets to the storm drainage system with a "protect our waters-no dumping"-type message.				July 1, 2015	
GENERAL HOUSEKEEPING	1 Dispose of often, material removed from streets and storm drainage facilities to eliminate exposure to rainwater and runoff to the storm drain system.				July 1, 2014	
	2 Keep chemical storage areas neat and orderly				July 1, 2014	
REFUSE HOLDING AREAS	1 When materials removed from storm drainage facilities are stored on site, store the materials on a concrete pad or other type of impermeable material away from storm drainage facilities. Use covers or other methods as appropriate to prevent blowing away of debris. Drain wastewater to the sanitary sewer, only upon approval from the local sanitary sewer agency, or allow to evaporate to prevent discharges to the storm drain system. Dispose of the material at an appropriate facility.				July 1, 2015	
AUXILIARY STORAGE AREAS/YARDS	1 Store chemicals in appropriate areas to prevent pollutant discharge to the storm drains.				July 1, 2014	
CHEMICAL STORAGE	1 Keep all containers containing hazardous materials or waste closed when not filling or emptying. Properly label containers using the NFPA or HMIS system (or other appropriate system as approved by City management). Protect the storage area from vandalism				July 1, 2014	
CHEMICAL USAGE	1 Ensure that necessary safety equipment and spill containment kits are readily accessible in areas where chemicals are used. Inspect safety equipment (e.g., eye wash) regularly to ensure they are operational.				July 1, 2014	
	2 Review MSDSs.				July 1, 2014	The City subscribes to a MSDS website for quick access.
	3 Minimize use of chemicals. Use water-based paints and non-toxic chemicals as much as possible.				July 1, 2014	
CHEMICAL USAGE	4 Recycle or dispose of excess chemicals at an approved local Household Hazardous Waste Facility or other approved location, or via an appropriate contractor who handles and disposes of materials properly.				July 1, 2014	
	5 Ensure chemical containers have secure lids and are secured properly to the vehicle during transport.				July 1, 2014	
	6 Properly remove any soils contaminated with spilled materials				July 1, 2014	
Oil-based Paints	1 Wipe paint out of brushes. Filter and reuse thinners or dispose of as hazardous waste. Dispose of the excess paint as hazardous waste or recycle. If there is too much paint to dry, recycle the paint or dispose of properly.				July 1, 2014	
Water-based Paints	1 Rinse paint out of brushes and discharge rinse water to the sanitary sewer. Recycle or dry excess paint in cans and dispose of the cans in the trash. If there is too much paint to dry, recycle the paint or dispose as hazardous waste.				July 1, 2014	
Automotive Fluids	1 Collect used fluids and recycle or dispose at an appropriate facility.				July 1, 2014	
Pesticides	1 Refer to the State of Oregon pesticide applicator requirements for pesticide mixing, application, storage and disposal requirements.				July 1, 2014	
	2 Consider using integrated pest management methods. Given a choice, use the least toxic pesticides and herbicides that will accomplish the job.				July 1, 2014	
	3 Apply pesticides at appropriate times to maximize their effectiveness and minimize their potential to run off.				July 1, 2014	
	4 Mix only as much pesticide as needed. Do not mix or load pesticides next to storm drain inlets or watercourses.				July 1, 2014	
Solvent/Cleaning Solutions	1 Properly recycle or dispose of used solvents/chemicals				July 1, 2014	
WASHING VEHICLES/ EQUIPMENT	1 Clean all vehicles/equipment on designated wash areas that discharges wastewater to landscaping, the sanitary sewer or recycling system. (Wash areas might be off-site to ensure discharge to the sanitary sewer or recycling system.)				July 1, 2015	
	2 Ensure wash area and sump (if applicable) are large enough so that all wastewater drains to the sanitary sewer or recycling system. If necessary, re-grade area or install dikes to convey the wastewater.				July 1, 2015	

## ISWMP 2022 Performance Standards

### Corporation Yards

(See Chapter V.)

Subsection	Performance Standard	Implementation Status			Implementation Date	Comments
		Scheduled	Partial	Full		
	3 Visually monitor the wash area to make sure it is consistently used.				July 1, 2015	
FUEL DISPENSING AREAS	1 Store spill containment kits nearby. If spill occurs, use dry methods to clean and follow procedures in the Hazardous Materials Business Plan and/or Spill Prevention Plan.				July 1, 2014	
	2 Train employees in proper fueling, cleaning, and spill response procedures				July 1, 2014	
	3 Discourage mobile fueling. If mobile equipment is fueled with a mobile fuel truck, have spill kits available and choose an area away from storm drain facilities, sanitary sewer systems, and waterbodies for fueling.				July 1, 2014	
	4 Design new fueling area(s) to prevent "run-on" of stormwater and runoff of spills				July 1, 2014	
FLEET MAINTENANCE/VEHICLE PARKING AREAS	1 Inspect equipment for leaks on a regular basis. Use drip pans under leaking vehicles. Repair vehicles with significant leaks.				July 1, 2014	
	2 Drain and replace motor oil and other fluids in a covered shop area. If fluids are changed outdoors, designate an area where there are no connections to the storm drains, watercourses, or the sanitary sewer. Select a designated area where spills can be easily cleaned up or drain to a closed pan and return to shop for proper disposal.				July 1, 2014	
	3 Periodically dry sweep the area.				July 1, 2014	
	4 Schedule outdoor repair activities for dry weather, if possible. Prevent repair supplies or work material from entering storm drains or watercourses				July 1, 2014	
	5 Clean equipment as it comes in for repairs using proper collection and disposal methods when necessary. Inspect equipment as it comes in for routine maintenance and clean if needed.				July 1, 2015	



## ISWMP 2022 Performance Standards

### Illicit Discharge Control

(See Chapter V.)

Subsection	Performance Standard	Implementation Status			Implementation Date	Comments
		Scheduled	Partial	Full		
PREPARE FOR ILLICIT DISCHARGE SCREENING AND INVESTIGATIONS	1 Receive information on non-stormwater discharge reports;				July 1, 2014	
	2 Assure that needed follow-up, elimination, and cleanup of illicit discharges are conducted;				July 1, 2014	
	3 Provide other staff with information about the status of source identification and elimination. In particular, staff who identify an illicit discharge will be informed about its outcome;				July 1, 2014	
	4 Make sure required reporting is completed;				July 1, 2014	
	5 Distribute information to the City's management and elected officials, as requested, about the resources needed to implement these performance standards;				July 1, 2014	
	6 Facilitate the implementation of these performance standards; and				July 1, 2014	
	7 Be responsible for sharing activities and findings with the Stormwater Coordinators				July 1, 2014	
	8 Train at least biennially City staff who maintain and repair the municipal storm drain conveyance system. Train other municipal staff who conduct field work where illicit discharges are likely to occur, to recognize illicit discharges and the procedures for responding to these discharges. Train all new staff who fill positions as described above, about illicit discharge recognition and response procedures.				July 1, 2014	
	9 Keep maps of the completed municipal storm drain system sufficiently accurate to be used for tracing illicit discharges.				July 1, 2014	
	10 Train City staff assigned to conduct illicit discharge investigations on the knowledge and skills necessary to be effective. They will be familiar with guidance developed by the City and DEQ staff and these performance standards				July 1, 2015	
CONDUCT FIELD SCREENING	1 Begin program to identify evidence of illicit discharges to the municipal storm drain conveyance system, using municipal maintenance and other local field staff while they are conducting their routine work. Report any evidence of illicit discharges identified during these field screening activities to the Stormwater Program Manager or designee for follow-up.				July 1, 2015	
FOLLOW-UP TO FIELD SCREENING AND INVESTIGATIONS	1 When a party responsible for an illicit discharge is found, provide the responsible party with: a. educational information about the impacts of his or her actions, b. the requirements of the local stormwater ordinance, c. options for proper discharge or disposal, and/or				July 1, 2014	
	2 If the discharge is traced to a business, the Stormwater Program Manager, or delegated staff, will distribute appropriate educational and BMP information.				July 1, 2014	
	3 The goal of follow-up investigations will be to stop the illicit discharge(s) as soon as practicable and protect water quality to the maximum extent practicable.				July 1, 2014	
	a Investigate and record reported spill reports and/or complaints about incidents within the City.				July 1, 2014	
	b Become familiar with existing spill prevention, containment, response, and clean-up programs that cover the city's jurisdiction.				July 1, 2014	
DOCUMENT AND REPORT COMPLETION	1 Document the number and types of illicit discharge incidents reported and follow-up investigations conducted within the agency's jurisdiction. (This does not include information from fluid spills from automobile accidents.)				July 1, 2014	

**ISWMP 2022 Performance Standards**

Lifespan Operation and Maintenance Verification

(See Chapter VII.)

Subsection	Performance Standard	Implementation Status			Implementation Date	Comments
		Scheduled	Partial	Full		
TARGETING INSPECTIONS TO ACHIEVE THE MOST BENEFIT	1 Develop and update as needed, an operation and maintenance review plan or standard operating procedure (SOP) that describes the following: a. The inspecting divisions/department. b. The division/department that will conduct the stormwater follow-up and/or enforcement. c. How information and resources will be coordinated among agencies/departments. d. Priorities for inspecting stormwater facilities. Identify target businesses, if any, with high potential to discharge pollutants to the municipal storm drains or within wellhead protection areas. e. Proper recordkeeping procedures. The O&M review plan or SOP shall be tailored to the amount of staffing and financial resources available given program priorities.				July 1, 2014	
	2 Educate business owners and operators about stormwater pollution prevention, separate from the inspection program.				July 1, 2015	
	3 Respond to complaints or referrals from others about a facility. The response may include actions such as: a. Interviewing the caller concerning the specific nature of the problem; b. Referring the caller to the DEQ staff for compliance questions concerning the State requirements (i.e., 1200 Z permit, etc.). c. Referring the caller to another agency if the facility is outside the City's jurisdiction; d. Calling the facility and providing appropriate BMP information. For substantive complaints not covered above, schedule a facility inspection or site visit as soon as possible.				July 1, 2015	
PREPARING FOR INSPECTIONS	1 Train appropriate City facility inspectors so that each inspector possesses the knowledge and skill necessary to conduct effective stormwater inspections. This includes identifying potential pollutant sources that may be exposed to stormwater runoff and non-stormwater discharges to the storm drains.				July 1, 2015	
	2 The appropriate City's inspection staff will be responsible with being knowledgeable about the following: a. Stormwater regulations and requirements, including the City's ordinance and applicable state permits; b. Impacts of non-stormwater discharges to the river, surface water and groundwater; c. Inspection techniques and procedures; d. Follow-up and enforcement procedures; and e. Stormwater BMPs. The inspectors and managers will obtain periodic training to support inspection activities and to continue to improve program implementation.				July 1, 2015	

**ISWMP 2022 Performance Standards**

Litter Control

(See Chapter VIII.)

Subsection	Performance Standard	Implementation Status			Implementation Date	Comments
		Scheduled	Partial	Full		
SERVICES	1 Pick up litter receptacles located on City-owned property on a frequent enough basis to minimize or prevent spillage.				July 1, 2014	
	2 Provide an adequate number of litter receptacles on City-owned property. The City will make every effort to contain litter in receptacles.				July 1, 2015	
EDUCATION AND ENFORCEMENT	1 Encourage participation in and assist with the litter removal activities associated with the Stream Stewardship Day or other similar clean-up event				July 1, 2014	

**ISWMP 2022 Performance Standards**

Monitoring

(See Chapter VIII.)

Subsection	Performance Standard	Implementation Status			Implementation Date	Comments
		Scheduled	Partial	Full		
Facility Procedures	1 Maintain a NELAC accredited facility for stormwater-related laboratory testing.				July 1, 2014	
Preparing for and Conducting Monitoring Activities	1 Maintain sampling plans and quality assurance plans, as appropriate.				July 1, 2014	
	2 Conduct appropriate recordkeeping and reporting.				July 1, 2014	

## ISWMP 2022 Performance Standards

### Municipal Maintenance

(See Chapter VIII.)

Subsection	Performance Standard	Implementation Status			Implementation Date	Comments
		Scheduled	Partial	Full		
STREET SWEEPING FREQUENCY	1 Clean streets according to the City's Sweeping Plan.				July 1, 2014	
PROBLEMS ASSOCIATED WITH EFFICIENT STREET CLEANING STREET CLEANING OPERATION TO MAXIMIZE POLLUTANT REMOVAL	1 Maintain a consistent sweeping schedule.				July 1, 2014	
	1 Provide a clean looking street. Conduct tandem driving in areas of heavy load to minimize dirt tracks, trails, or debris to degree practicable given weather and winter road safety measures.				July 1, 2014	
	2 Check street cleaning equipment for proper adjustment.				July 1, 2014	
	3 Operate street cleaning equipment at the speed specified by the manufacturer.				July 1, 2014	
STREET CLEANING MAINTENANCE TO MAXIMIZE POLLUTANT REMOVAL	1 Regularly inspect and maintain street cleaning equipment.				July 1, 2014	
	2 Replace worn components as required to maximize efficiency.				July 1, 2014	
SPILL RESPONSE	1 Report spills observed on streets immediately for quick response by appropriate personnel.				July 1, 2014	
	2 Respond to spills in accordance with appropriate response procedures. This includes appropriate measures to block storm drain inlets to prevent and minimize discharges from entering storm drainage facilities in the event of an accident, spill, or emergency fire-fighting activity.				July 1, 2014	
RECORD KEEPING	1 Track miles swept using a broom odometer or by tracking mileage.				July 1, 2014	
	2 Track volume or weight of material removed for street cleaning.				July 1, 2014	
	3 Report summary of sweeping data in annual report.				July 1, 2014	
	4 Document and track areas where spills were reported and coordinate with the City's illicit discharge control field surveys..				July 1, 2015	
EDUCATION/TRAINING	1 Train annually, municipal staff, as appropriate, responsible for street sweeping to identify and report illicit discharges, and to comply with the other street sweeping performance standards.				July 1, 2014	

## ISWMP 2022 Performance Standards

### New Development, Redevelopment, and Construction Site Controls

(See Chapter VI.)

Subsection	Performance Standard	Implementation Status			Implementation Date	Comments
		Scheduled	Partial	Full		
DEVELOPMENT PLAN REVIEW AND PERMITTING	1 Obtain adequate legal authority to implement stormwater quality control measures for development, redevelopment, and construction activities as part of the development plan review and approval process.				July 1, 2014	
	2 Require developers and owner/builders of projects that include permanent stormwater facilities to ensure ongoing operation and maintenance of the facilities, as part of project approval documents.				July 1, 2015	
	3 Require developers and owner/builders of projects with potential for significant erosion and planned construction activity to plan, prepare for and implement effective erosion and sediment controls.				July 1, 2015	
	4 Ensure municipal capital improvement projects also include stormwater quality control measures during and after construction, as appropriate for each project.				July 1, 2015	
ADDITIONAL EROSION AND SEDIMENT CONTROL	1 Maintain an erosion and sediment control program that includes requirements for minimum performance standards, sufficient enforcement authority, training and tools for inspectors, and information for developers and contractors.				July 1, 2015	
CONSTRUCTION INSPECTION	1 For development projects with significant erosion potential, require that erosion and sediment control measures are implemented through a construction inspection process. Measures will be implemented in accordance with local ordinances and project conditions of approval, including the approved erosion and sediment control plan. Measures will also be maintained as needed during construction.				July 1, 2014	
EDUCATION AND OUTREACH	1 Distribute appropriate educational and training materials to city staff, contractors, construction site operators, developers, and owner/builders such as: a. Construction BMPs including erosion and sediment controls; b. Available guidance on the DEQ 1200C permit, if applicable; c. Site planning or design measures and post construction controls; and d. Information provided by DEQ staff regarding State and Federal permit and approval requirements for related project activities. Distribute this information and guidance materials to developers and owner/builders early in the application or design review process, or have available on the City's website as appropriate for the type of project.				July 1, 2014	
	2 Train, at least biennially, appropriate construction inspection staff on inspection procedures, documentation, and enforcement related to stormwater pollution prevention.				July 1, 2015	
	3 Train, at least biennially, staff from planning, building, and public works staff on planning procedures, policies, design guidelines, and BMPs for stormwater pollution prevention and control.				July 1, 2015	
	4 Distribute appropriate educational and outreach materials provided by the DEQ to those utility contractors (water supply, cable, phone, electrical, etc.) seeking encroachment and/or grading permits from the municipality.				July 1, 2015	

## ISWMP 2022 Performance Standards

### Operation and Maintenance of Stormwater Pump Stations

(See Chapter VIII.)

Subsection	Performance Standard	Implementation Status			Implementation Date	Comments
		Scheduled	Partial	Full		
VISUAL INSPECTIONS	1 Inspect wet wells or forebays once per month for oil spills or other noticeable pollutant discharge.				July 1, 2014	
MAXIMIZE REMOVAL OF POLLUTANTS PRIOR TO DISCHARGE	1 Conduct at least one comprehensive cleaning of wet wells annually to remove sediment prior to the start of the rainy season to minimize discharge of sediment. Clean wet wells with a vacuor, if possible.				July 1, 2014	
	2 If there is a large potential for pollutant discharge, have a spill kit readily available.				July 1, 2014	
	3 If any spill is reported or observed, try to remove the material at the nearest access point. As practical, shut down the pump station if the material may reach it. (A storm event may necessitate operation of the pump station.) As possible, prevent spill from discharging.				July 1, 2014	
	4 Store oil absorbent materials in appropriate maintenance vehicles.				July 1, 2014	
DISPOSAL	1 Dispose of screenings at a landfill, sediment at a location that will not re-enter the storm drain system or receiving waters through erosion, and oil-absorbed materials at a site licensed to accept hazardous waste.				July 1, 2014	
EDUCATION/TRAINING	1 Educate all personnel responsible for maintaining stormwater pump stations about these performance standards. City staff will conduct or provide at least one training session annually to educate pump station personnel about these performance standards and illicit discharge identification and reporting.				July 1, 2015	

## ISWMP 2022 Performance Standards

### Public Information and Participation

(See Chapter II & III.)

Subsection	Performance Standard	Implementation Status			Implementation Date	Comments
		Scheduled	Partial	Full		
Coordination with Existing Opportunities/ Activities	1 Stay sufficiently informed about the programs and materials being developed by Oregon Association of Clean Water Agencies (ACWA) and/or other suitable programs and groups by regularly attending or tracking ACWA or other appropriate stormwater, groundwater and public outreach committees.				July 1, 2014	
	2 Distribute and/or make readily available outreach and educational materials to appropriate audiences within the City. This includes, but is not limited to schools, volunteer committees, neighborhood associations, community groups, business groups and /or other environmental groups.				July 1, 2014	
City Staff and Officials	1 Identify, develop, and communicate at least annually, information about the City's stormwater quality program to city management and elected officials so that they are well informed about the requirements, their role in implementing the local stormwater program, and the City's progress.				July 1, 2014	
	2 Train new employees involved with stormwater pollution prevention activities on their role in implementing the local stormwater program.				July 1, 2014	
Procedures and Training for Handling Telephone Calls from the Public About Stormwater Pollution Prevention	1 Establish procedures for answering, tracking, and efficiently routing stormwater-related telephone calls to the appropriate staff for handling.				July 1, 2014	
	2 Train staff assigned to answering or responding to telephone calls on the established procedures.				July 1, 2014	
	3 Promote the use of a City telephone number to facilitate public reporting of illicit discharges.				July 1, 2014	
Storm Drain Inlet Stencils and Signs	1 The City will have an active program to install stencils/storm drain markers on publicly owned storm drain inlets. This includes installation by municipal staff, contractors, volunteers, and/or community groups.				July 1, 2014	
COORDINATION WITH PUBLIC SCHOOLS (K-12)	1 The Stormwater Program Manager will either be responsible for distributing, or delegating the distribution of, information about school based outreach and educational materials to public schools within the City. This may include disseminating information on how to obtain copies of materials and providing lending opportunities for the watershed diorama, and may include working with outside groups who work directly with school children providing pollution prevention and water education				July 1, 2014	
Local Community Outreach Program	1 The City will participate in community outreach activities from the areas listed below for the purpose of communicating the general stormwater pollution prevention message, complementing regional or statewide coordinated specific messages for target audiences, and facilitating the proper management and disposal of targeted pollutants. The City will participate in at least three activities annually.				July 1, 2014	
	a Distributing local, regional or statewide information through other venues (e.g., local newsletter, local magazine, mailing to target group, computer web site or network, local telephone directories, etc.).				July 1, 2014	
	b Participating in existing community events such as fairs, festivals, exhibits, etc. This participation may include setting up a booth, kiosk display, or other creative means for communicating the general stormwater pollution prevention message; using a specific message to a target group; or making a presentation at a local community service group				July 1, 2014	
	c Initiating new community events or playing a major role in planning and staging a community or city-wide event. Examples include, but are not limited to, Earth Day, Stream Stewardship Day, or other festival or fair, business mixer, seminar or workshop for a target group, contest, or coordination with businesses to provide pollution prevention discounts (e.g., recycled car wash discount).				July 1, 2014	
	d Developing and raising watershed awareness				July 1, 2014	
	e Coordinating with local volunteer groups to conduct outreach.				July 1, 2014	



## ISWMP 2022 Performance Standards

### Road Repair and Maintenance

(See Chapter VII.)

Subsection	Performance Standard	Implementation Status			Implementation Date	Comments
		Scheduled	Partial	Full		
GENERAL PRACTICES/ TRAINING	1 Schedule excavation and road maintenance activities for dry weather, if feasible.				July 1, 2014	
	2 Equipment repairs and fueling or maintaining vehicles and equipment will be conducted in accordance with the Corporation Yard Performance Standards.				July 1, 2014	
	3 Recycle used motor oil, diesel oil, concrete, broken asphalt, etc. whenever possible.				July 1, 2014	
ASPHALT/CONCRETE REMOVAL	1 After breaking up old pavement, remove and recycle as much as possible to avoid contact with rainfall and stormwater runoff.				July 1, 2014	
PATCHING AND RESURFACING	1 To minimize runoff from patching and resurfacing activities, materials will not be stockpiled in streets, gutter areas, or near storm drain inlets or waterbodies unless these areas are protected (i.e., stockpiled material should be covered to minimize stormwater runoff.)				July 1, 2014	
	2 Cover and seal manholes and storm drain inlets before applying seal coat, slurry seal etc				July 1, 2014	
	3 Never wash excess material from exposed aggregate concrete or similar treatments into a street or storm drain inlet. Designate an unpaved area for clean up and proper disposal of excess materials.				July 1, 2014	
	4 Use only as much water as necessary for dust control to avoid runoff.				July 1, 2014	
	5 Sweep up as much material as possible and dispose of properly.				July 1, 2014	
	6 Clean up spills and leaks from other equipment and work site areas using "dry" methods (absorbent materials and/or rags). Properly dispose of absorbent materials and rags. If spills occur on dirt areas, the contaminated soil will be removed properly and on a timely basis				July 1, 2014	
	7 After the job is complete, remove stockpiles (asphalt materials, sand, etc.) and other extra materials as soon as possible.				July 1, 2014	
SIGNING AND STRIPING	1 Have spill kits or store spill absorbent materials on trucks to be used in the event of a spill.				July 1, 2014	
	2 Contain and clean up waste materials and dispose of them properly according to the MSDS.				July 1, 2014	
EQUIPMENT CLEAN UP/STORAGE	1 Clean sprayers, patch and paving equipment at the end of the day. Use approved collection methods and dispose or recycle waste materials at an approved facility.				July 1, 2014	
	2 If stored outdoors, cover sprayers, patch and paving equipment, if they contain pollutants, to prevent rainfall from transporting pollutants to the storm drain system.				July 1, 2014	
	3 Flush paint sprayer supply lines at the corporation yard. Use approved collection methods and dispose or recycle waste materials at an approved hazardous waste facility				July 1, 2015	

## ISWMP 2022 Performance Standards

### Storm Drain Facilities

(See Chapter VIII.)

Subsection	Performance Standard	Implementation Status			Implementation Date	Comments
		Scheduled	Partial	Full		
ROUTINE INSPECTION AND CLEANING <sup>6</sup>	1 When cleaning storm drain inlets and lines, remove the maximum amount of material at the nearest access point to minimize the potential for discharges to watercourses.				July 1, 2014	
RECORD KEEPING	1 Report the amount of material removed when cleaning storm drainage facilities in monthly record keeping forms.				July 1, 2014	
SPILL RESPONSE (MULTIPLE AGENCIES INVOLVED)	1 If non-hazardous materials are spilled, maintenance staff will contain the spill area immediately and clean when practical to prevent additional release and discharge of pollutants into the storm drain system.				July 1, 2014	
	2 Maintenance staff will establish a response/removal procedure for non-hazardous materials after work hours (e.g., per spill plan).				July 1, 2014	
	3 Maintenance staff will coordinate to determine the most appropriate follow-up response (e.g., tracking the source of a spill, identifying product labels, contacting Building and Planning Departments, contacting Stormwater Program Analyst with records and for educational follow-up, sending a clean-up bill to the responsible party, etc.).				July 1, 2014	

## ISWMP 2022 Performance Standards

### Winter Road Care

(See Chapter VII.)

Subsection	Performance Standard	Implementation Status			Implementation	Comments
		Scheduled	Partial	Full	Date	
WINTER ROAD CARE TO MINIMIZE POLLUTANT CONTRIBUTION	1 City will consider full long-term social costs and environmental/public safety risks when determining winter road care strategies.				July 1, 2014	
	2 The City will use alternative materials, such as basalt application, as much as possible and appropriate to minimize the use of chemical deicer (e.g., Mag Chloride), especially in sensitive areas.				July 1, 2015	
	3 Chemical deicers will be properly stored and handled per the chemical storage performance standards.				July 1, 2015	
SPILL RESPONSE	1 Report spills observed on streets immediately for quick response by appropriate personnel.				July 1, 2014	
	2 Respond to spills in accordance with appropriate response procedures.				July 1, 2014	
RECORD KEEPING	1 Track amount of product used per month (chemical deicer and basalt sanding).				July 1, 2015	
EDUCATION/TRAINING	1 Train at least biennially, municipal staff and contractors, as appropriate, responsible for winter road care and chemical deicer (e.g., MgCl <sub>2</sub> ) application to minimize overuse, to vary amounts to reflect site-specific characteristics, such as road width and design, traffic concentration, and proximity to surface waters and sensitive areas; to identify and report illicit discharges, and to comply with the other winter road care performance standards.				July 1, 2014	See FY2012-13 Annual Report Appendix G