



CITY OF BEND

Utilities Public Advisory Group

April 3, 2024 • 11 am–12:30 pm

Hybrid Meeting • MS Teams or Bend Utilities Department Deschutes Conference Room

Dan Denning, Water Conservation Program Manager

Elisabeth O'Keefe, Stormwater Program Manager

Aubrie Koenig, Facilitator

Purpose & Agenda

*Feedback on turf removal and WaterWise communities program priorities and approach.
Input on proposed stormwater illicit discharge downtown business outreach.*

1. Introduction
2. Water Conservation
 - Turf removal/HOA pilot
 - Overall program priorities
3. Stormwater Management
 - Illicit discharge education
4. UPAG Discussion
5. Summary and Closing



March meeting reflections

- **Stormwater Master Plan** key considerations:
 - Refining stormwater solution set for higher density development and smaller lot sizes
 - Education resources for residential onsite stormwater management requirements
 - Align master plan and codes related to residential runoff in the right-of-way
 - Maintenance resources for privately owned (sometimes failing) stormwater facilities
 - Continued focus on groundwater protection
- **Water Conservation Program** reporting feedback:
 - Support for sharing overall target water savings and actual progress towards goal
 - Strategies to convey individual benefits of adopting water savings practices
 - Interest in more weather stations for irrigation controllers to better cover microclimates
- **Erosion Control** compliance areas of interest:
 - Strategies to implement efficiently and standardize with templates for single-family homes, etc.



Summer subcommittee

Topics

- Erosion control standards and permitting (how to apply to small lots)
- Stormwater Master Plan

Meetings in July and August

- One per month, 1.5 hours each

UPAG Volunteers

- Mike Szabo
- Rick Martinson
- Brian Wilkinson
- Tom Headley
- Stephanie Wascha
- Others?



June tour preview

- 11 am tour start at Drake Park
- Walking tour of Newport Avenue
- 12:30 pm return to Drake Park for lunch

Look for more RSVP info soon!



Water Conservation Program

Recap of Goals and Challenges

- Roll out of 11 new conservation measures
- 7.9 billion gallons of water saved by 2040
- Reduction of 13.6 GPCD
- Continued population growth
- Shift in development- more people in less space
- Water rights limited
- Growing regulation on contaminants
- Climate change



Turf Removal vs. Landscape Code Conservation analysis (2019)

Turf Removal-

- Savings 26% avg from national study
- 50 rebates annually SFR
- 57% of participants spent \$4,000 or less on conversion.
- MGD savings 0.012- 184 gpd/acct

Landscape Code- 0.8 mgd savings/yr

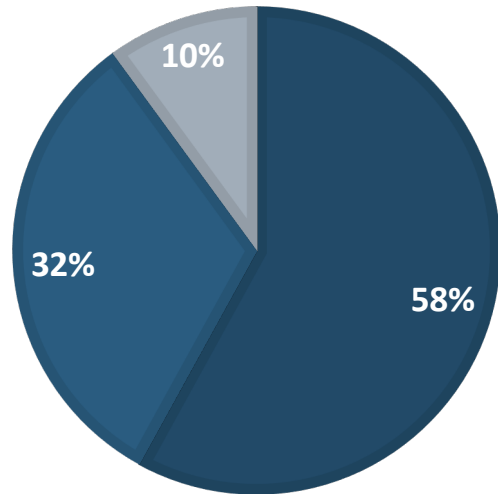
- Same national study referencing 26% savings
- Based on 691 new buildings
 - Assuming 6% being MFR, 83% being SFR
- MGD savings 0.81- 187 gpd/acct SFR



Pursuing Private Development Code

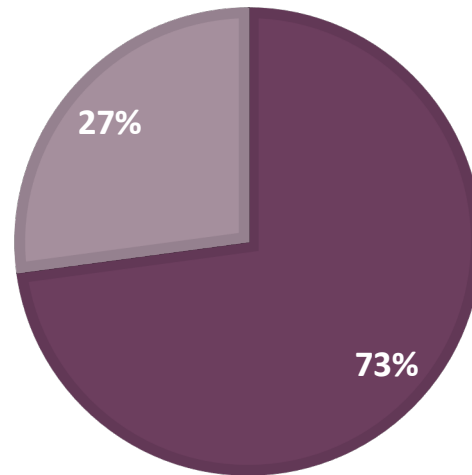
ANNUAL BUILDING PERMITS ISSUED
AVG 2014-2022

■ SFR ■ MFR ■ MID



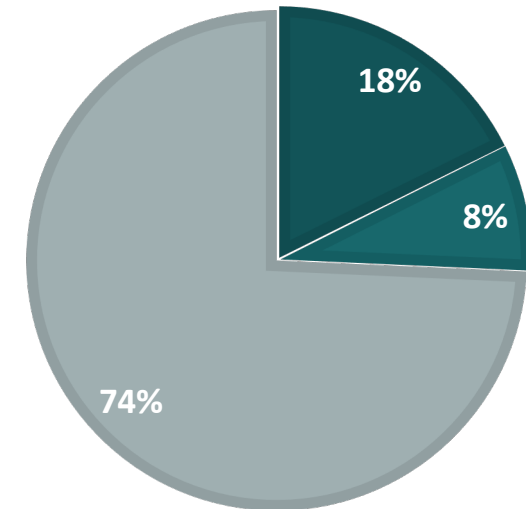
APPROVED DEVELOPMENTS WITHIN BEND
UGB
2025-2045

■ Units in Franchisee Service Territory ■ Units in COB Service Area



APPROVED DEVELOPMENTS DISTRIBUTION
OF HOUSING TYPE, WITHIN CITY OF BEND
WATER SERVICE AREA 2025-2045

■ SFR ■ Middle Housing ■ MFR



Turf removal pilot program overview



Turf Removal Rebate

Before After

Save water, money and time by upgrading to a high desert landscape.

Must be a City of Bend water customer to participate.

The City of Bend is offering a Turf Removal Rebate to convert thirsty lawns into a low-water use landscape which provides a colorful, biodiverse and waterwise alternative to traditional lawns. These alternatives can also lower your utility bills and reduce maintenance requirements.

\$3 sq/ft
up to \$3,000
maximum

BYE LAWN... HIGH DESERT!

WaterWiseTips.org

 CITY OF BEND
WATER CONSERVATION

- Targeted to single family residential customers; however, multi-family residential and commercial sites with 1,000 sqft or less of convertible area can apply
- Must convert to moderate, low, or very low water use plants and upgrade irrigation
- Will receive \$3 per sqft max of \$3,000 per project
- Small pilot in 2022 showed a range of savings from 19-44% post-establishment. Average of 23% per participant.
- Goal to remove 25,000 sqft of turf in '24

Considerations

- Need to minimize weeds and potential herbicide use in converted areas
- Need to offset radiated heat from replacement of turf
- Need to eliminate low performing irrigation systems
- Maintain trees and tree health
- Promote plant diversity and minimize herbicide dependency
- Provide support through process to aid in successful conversions

Project area must retain 50% plant coverage at maturity

Project must convert to drip irrigation or high efficiency nozzles

Mulch- (rock or composted organic material) must be applied min 3" in converted planted areas

No synthetic turf rebated.
Permeable pavers may be installed as long as plant density is still met,

Mandatory pre and post consultations.



Water Wise Communities grant program overview



The flyer features the City of Bend logo and contact information at the top. A central image shows a landscaped area with a path and a water drop icon. The title 'WaterWise Communities' is prominently displayed. Below the title, it lists eligibility criteria, project types, benefits, and an offer of a 50% match on project costs up to \$10,000. Three circular icons illustrate 'Landscape Conversions', 'System Efficiency Upgrades', and 'Water Saving Upgrades'.

CITY OF BEND
WATER CONSERVATION

541-317-3000, ext. 2
conservation@bendoregon.gov
WaterWiseTips.org

WaterWise Communities

Must be a City of Bend water customer to participate.

A site-specific pathway for homeowner associations, community associations, and commercial properties to reduce water consumption while maintaining healthy and efficient landscapes. The WaterWise Communities program provides resources to participants to help them achieve their water-savings goals.

Offering a 50% match of project cost, up to \$10,000.

Projects are unique to each landscape and can include:

- Landscape Conversions
- System Efficiency Upgrades
- Water Saving Upgrades

Projects Include:

- ✓ Landscape Evaluation
- ✓ Irrigation Evaluation
- ✓ Project Support from City of Bend

Benefits:

- Water-Efficient Landscapes
- Community Recognition
- Improved Site Value
- Reduced Water Use & Utility Costs
- Lower Maintenance Requirements

- Grant application program for commercial customers, HOA's, and multi-family residential with >1,000 sqft of project area
- Turf conversions, irrigation system efficiency upgrades, and water management projects
- Offer a 50% reimbursement of project costs up to \$10,000
- Program administered through our Large Landscape program
- Goal is 8 sites in '24

Considerations

- Prioritize high impact projects
- Provide analysis to inform project and savings potential
- Improve irrigation management of large landscape sites, often through multiple controllers
- Maintain care of new project

Mandatory pre-approval site evaluation through LLP

Priority points added to project for: Using Water Sense certified contractor/designer, Including stormwater capture, Use of pollinator plants, Maintenance plan included in project

Similar plant density requirements 50%

Similar irrigation requirements- drip irrigation, high efficiency nozzles

Educational opportunities

3/9, 3/12, 3/21- G3 Webinars 401 attendees

Sat 4/13 -Spring Garden seminar

Wed 4/17-Deschutes Library

Sat 6/8- Water Wise Field Day

Additional needs:

Fire Wise/Water Wise alignment

Irrigation Water Management

Integrated Pest Management

Turf's gone....now what?

Contractor certification program



This year's Spring Gardening Seminar is again virtual with all classes offered via 90-minute Zoom webinars.

Pre-registration and \$5 payment per class are required (Payment is via Paypal only. A Paypal account is not required as you will be able to pay via a guest account).

You can register for one or all classes in a series: Morning or Afternoon. Once you choose a class, click on the Register button to complete your registration and pay for your class(es). Please send any questions to: seminar@gocomga.com.

Presented By:

Oregon State University Extension Service offers educational programs, activities, and materials without discrimination based on age, color, disability, gender identity or expression, genetic information, marital status, national origin, race, religion, sex, sexual orientation, or veteran's status. Oregon State University Service is an Equal Opportunity employer.

All 7 classes in these two series have been approved for Master Gardener Advanced Training

MORNING CLASS SERIES at 10AM [REGISTER FOR MORNING CLASSES](#)

Plant Select: Plants That Wanna Be Here! - Karen McCarthy

Saturday, April 6th, 10:00 a.m.

Are you overwhelmed thinking about how to transform your landscape to be a part of, rather than fight, we battle cold, wind, heat plus low precipitation? Plant Select is a nonprofit based in Colorado, a cooperi State University and the world-renowned Denver Botanical Gardens. For over 25 years they have been introducing plants for the landscape that not only look great but will also thrive in our harsh western int review a few old favorites plus some new introductions from Plant Select.

Ins and Outs of Lawn-to-Xeriscape Conversion in Central Oregon - Dan Denning

Saturday, April 13th, 10:00 a.m.

As the impacts to water resources and frequency of drought conditions increase in Central Oregon, a co decrease water consumption in the home or business is to reduce the amount of non-functional high w retrofit low efficiency irrigation systems. Commonly faced challenges to replacement include planning o resources and setting yourself up for success by choosing appropriate plant and irrigation material to m landscape. This presentation will walk through the regionally appropriate steps to a conversion including planting, irrigation and identifying available resources and rebates available.

<https://www.gocomga.com/2024-spring-seminar>

conservation@bendoregon.gov
(541) 317-3000, ext 2
WaterWiseTips.org

Bye Lawn, High Desert!

2024 WaterWise Landscape Webinars

Are you looking to update your landscape and save water?

The City of Bend Water Conservation program is offering a Turf Removal Rebate to convert thirsty lawns into low water use landscapes. The result is a gorgeous high desert landscape that provides a colorful, biodiverse, pollinator-friendly, and waterwise alternative to traditional lawns!

The EPA Water Sense accredited webinar is brought to you by City of Bend's Water Wise Program and presented by award-winning Green Gardens Group.

Join a webinar and learn how to:

- Plan and prepare for a lawn conversion.
- Remove turf without chemicals.
- Use highly efficient irrigation.
- Successfully apply for the Turf Removal Rebate.

Register at WaterWiseTips.org or greengardensgroup.com/cityofbendoregonclasses

Date	Time	Event	City/Host
Saturday, March 9, 2024	9:00 AM - 10:15 AM	Bye Lawns, High Desert: How Turf Rebates Can Help	Virtual
Thursday, March 17, 2024	6:00 PM - 7:15 PM	Bye Lawns, High Desert: How Turf Rebates Can Help	Virtual
Wednesday, March 20, 2024	6:00 PM - 7:15 PM	Bye Lawns, High Desert: How Turf Rebates Can Help	Virtual

Accommodation Information for People with Disabilities
To obtain this information in an alternate format such as Braille, large print, electronic format, etc., please contact utility staff at conservation@bendoregon.gov, (541) 317-3000, ext. 2, relay users 800 768-4141.

Water conservation program priorities



Program outreach

- Communicate goals and current state
- Rules and regulations
- Process-installation
- Care-establishment
- Continued increase in participation



Partnerships for providing

- Green industry education and training
- Public education and training
- Developing BMP's for maintenance/care of new landscapes
- Incorporating Fire Wise elements into design considerations



Identify communities outside of primary target audience

Identify and engage customers who don't typically participate



UPAG focus questions

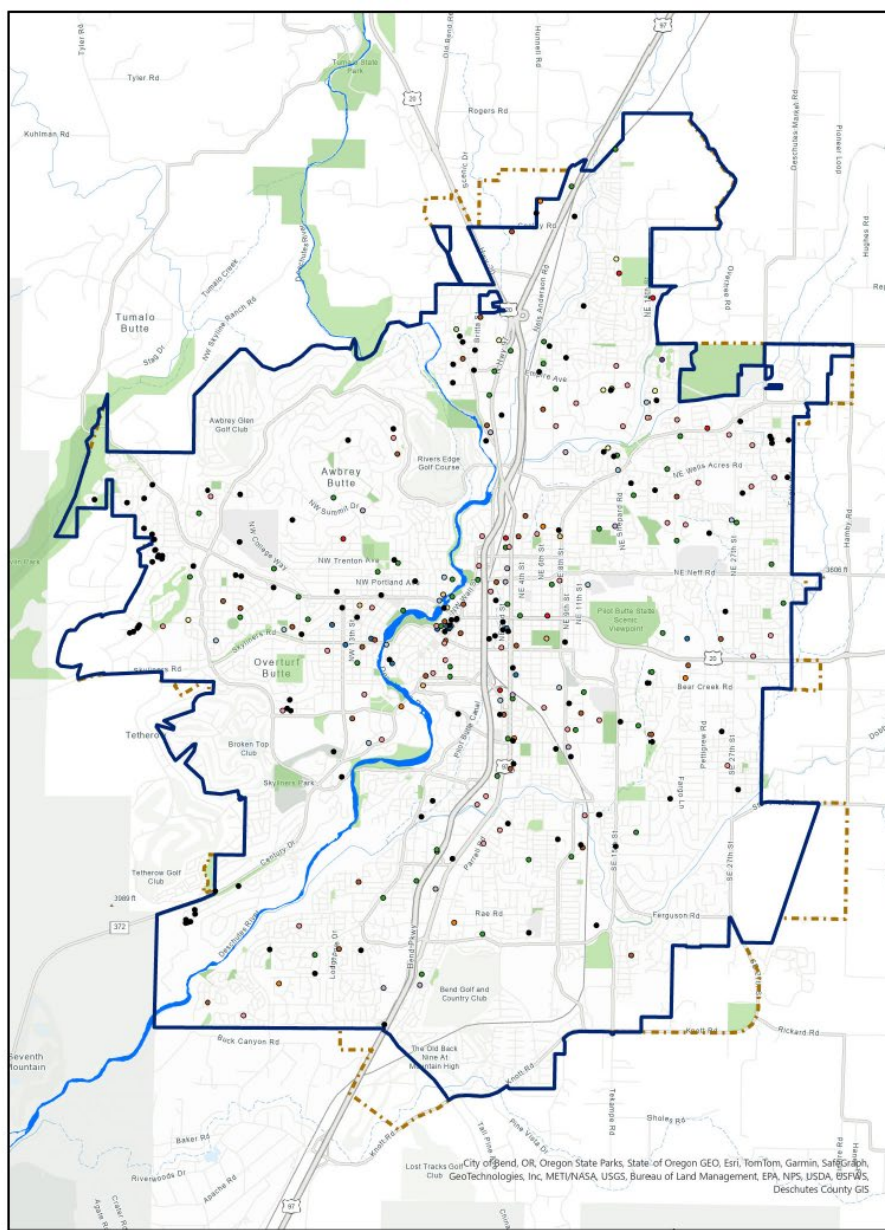


- How would you rate the pilot program applications for overall clarity and ease of understanding? What if any hurdles would you expect for participants?
- Where would you suggest the City prioritize offering program participants support (application assistance, technical/design assistance, maintenance education, etc)?
- Which outreach channels do you feel will be most effective for these programs (multi-media promotions, yard signs for participants, etc)?

Stormwater Management

IDDE locations over time (2008-2024)

- Downtown
- Core Area

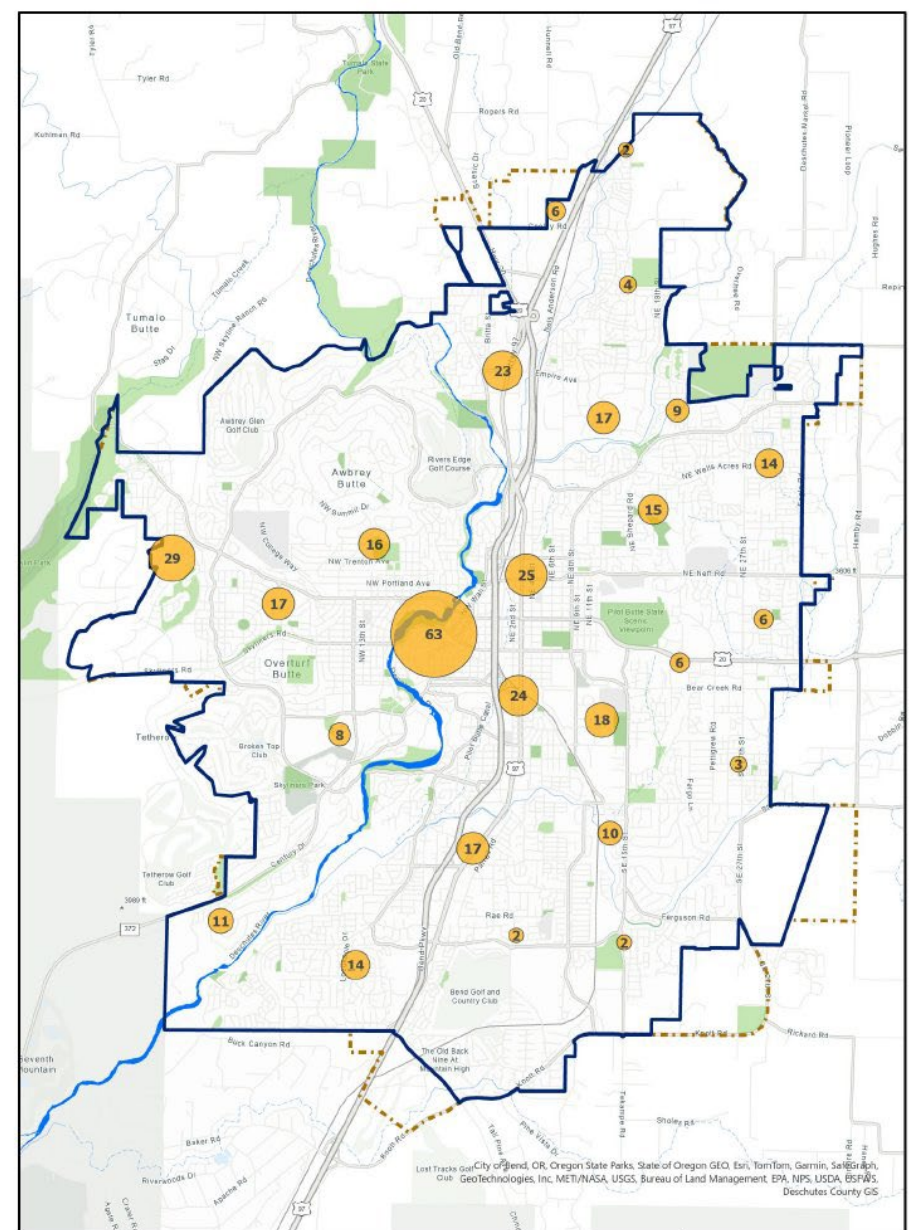


ILLICIT DISCHARGE DETECTION AND ELIMINATION
CODE CASE VIOLATION TYPE MAP

Urban Growth Boundary	Code Cases	Trash	Cooking Oil
City Limits	Violation Type	Wastewater	Unknown material
Rivers	Pool/Hot/can/Pond	Yard Waste	Other
Parks	RV Waste	Material Management	Information Unavailable
	Sanitary Sewer Overflow	Oil/Gasoline/Hydraulic Fluid	

Map prepared by: City of Bend
Print Date: Mar 21, 2024
Sources: City of Bend, Deschutes County
Note: Code case data is from July 2008 to March 2024.

This map is for reference purposes only. Case was taken in the creation of this map, but it is provided "AS IS". Please contact the City of Bend to verify map information or to report any errors.



ILLICIT DISCHARGE DETECTION AND ELIMINATION
CODE CASE HEAT MAP

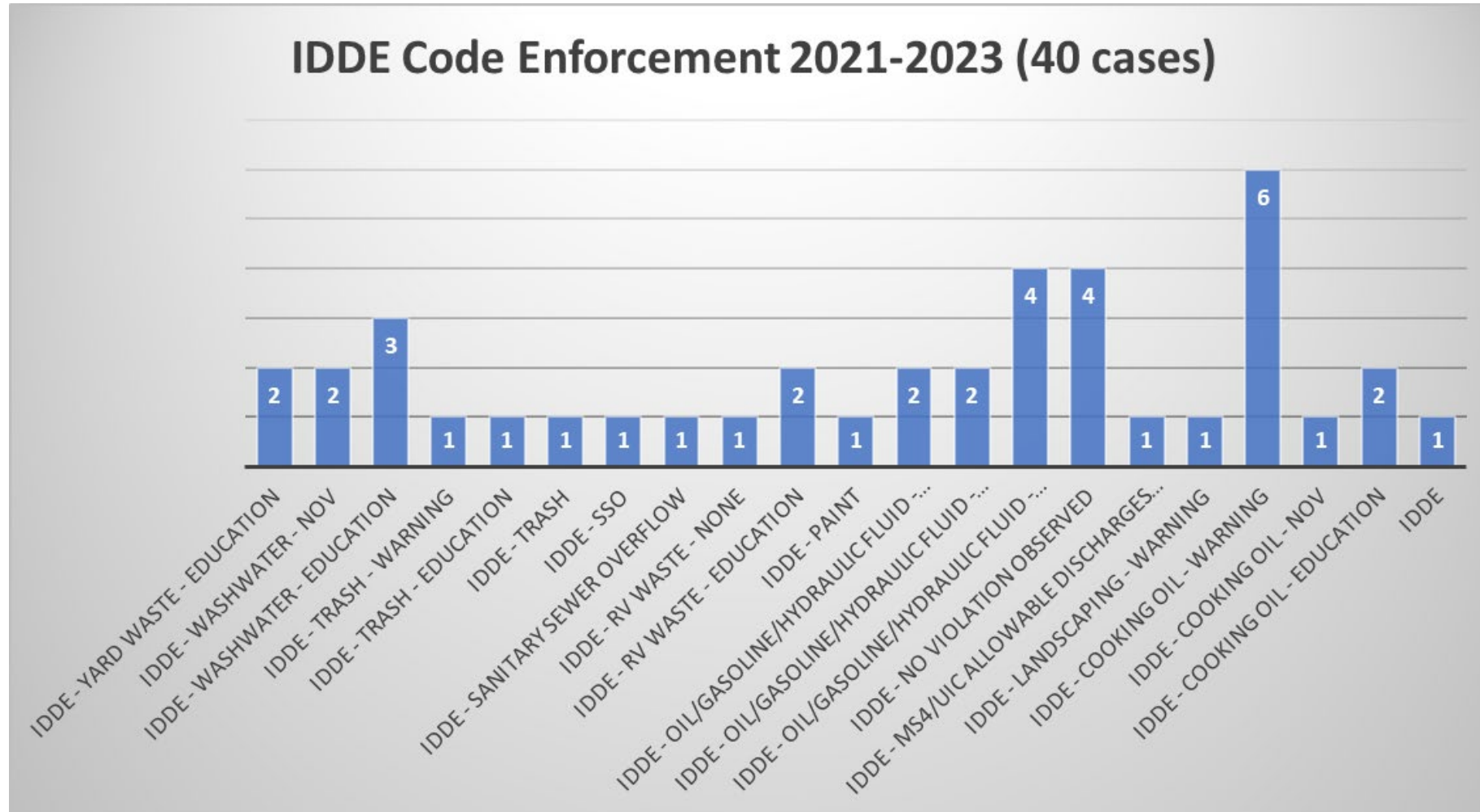
Urban Growth Boundary	Parks
City Limits	Code Cases
Rivers	

Map prepared by: City of Bend
Print Date: Mar 21, 2024
Sources: City of Bend, Deschutes County
Note: Code case data is from July 2008 to March 2024.

This map is for reference purposes only. Case was taken in the creation of this map, but it is provided "AS IS". Please contact the City of Bend to verify map information or to report any errors.



Case and Violation Type



High Frequency Case Types

2021-2023 (calendar year)

- Automotive pollutants 20%
- Restaurant grease 23%



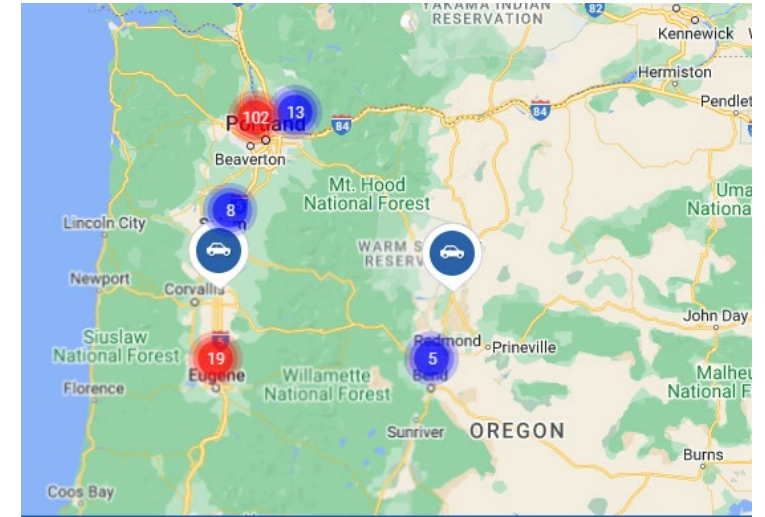
Business Outreach Program

2024 EcoBiz certification program

- Auto repair & body shops
- Car washes
- Landscapers

Areas of Evaluation

- Hazardous waste management
- Air quality and pollution
- Spill prevention and response
- Product and waste storage
- Cleaning procedures
- Purchasing and inventory management
- Recycling practices
- Employee training
- Vehicle washing and stormwater
- Energy and water use



Our Partners

CleanWater Services	CITY OF GRESHAM	ENVIRONMENTAL SERVICES CITY OF PORTLAND working for clean rivers	Clackamas River Water Providers Working together to protect and conserve our drinking water.	Metro
CLACKAMAS WATER ENVIRONMENT SERVICES	WASHINGTON COUNTY OREGON	pacific northwest POLLUTION PREVENTION resource center	DEQ	PCC POLLUTION PREVENTION COALITION



Certification Process

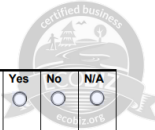
1. Initial site visit and walk through with EcoBiz staff
2. Report provided with steps required to achieve certification
3. Final certification site visit with Oregon DEQ



Underground Injection Control (UIC) Wells

When a business has no access to sewer or storm water collection systems, business wastes are often discharged into sumps, drywells, trench drains, floor drains, septic tanks and drain fields. This type of disposal practice may release wastes directly into the ground and over time pollute groundwater. As you might guess, the pollutants can enter lakes, streams, wetlands, springs, and private or public wells. Contaminated groundwater can have major consequences for a community or industry relying on well water for industrial processing, irrigation of food crops, or drinking water. Underground injection control (UIC) strives to control or eliminate these sources of contamination.

UIC1 legal	Have you checked for UIC wells (e.g. dry well, drill hole, drain field) located either inside your shop or anywhere on the property? Includes floor drains or sumps not directly connected to a municipal sanitary sewer.	Yes <input type="radio"/>	No <input type="radio"/>	N/A <input checked="" type="radio"/>
UIC2 legal	If UIC wells have been identified in your shop or on your property, has it been determined where the waste liquids discharge?	Yes <input type="radio"/>	No <input type="radio"/>	N/A <input checked="" type="radio"/>
UIC3 legal	Has your shop registered its UIC well(s) with DEQ?	Yes <input type="radio"/>	No <input type="radio"/>	N/A <input checked="" type="radio"/>
UIC4 legal	Have the UIC well(s) been permanently closed in a way that ensures underground sources of drinking water are protected?	Yes <input type="radio"/>	No <input type="radio"/>	N/A <input checked="" type="radio"/>



General Design

GD1 prog.	For work on private property, are you or do you have a certified landscape designer on staff? <ul style="list-style-type: none"> • APLD certification • Registered Landscape Architect (ORS 671.310 to 671.459) • College Degree Specify training or certification	Yes <input type="radio"/>	No <input type="radio"/>	N/A <input type="radio"/>
GD2 prog.	Do you use one of the following techniques to investigate utility locations onsite? <ul style="list-style-type: none"> • Call locator service • Check service maps • Pothole (hand dig to locate buried pipes) • Previous site design notes/maps • Homeowner interview 	Yes <input type="radio"/>	No <input type="radio"/>	N/A <input type="radio"/>

Pesticide Use

PU1 legal	Do all employees who apply Restricted Use Pesticides have current Pesticide Applicator's license issued by the Oregon Department of Agriculture?	Yes <input type="radio"/>	No <input type="radio"/>	N/A <input type="radio"/>
PU2 prog.	Do you prioritize products with the following characteristics? <ul style="list-style-type: none"> • Target specific • Pest life-stage & site appropriate • Safe for applicator & site users • Low mobility & persistence 	Yes <input type="radio"/>	No <input type="radio"/>	N/A <input type="radio"/>
PU3 prog.	Do you limit pesticide/herbicide use to Class III and IV EPA toxicity ratings (labeled with "Caution")? List pesticides of concern, and application information:	Yes <input type="radio"/>	No <input type="radio"/>	N/A <input type="radio"/>
PU4 prog.	Do you avoid using any of the following pesticides, except as a last resort? Beta-cyfluthrin, Bifenthrin, Carbaryl, Chloropicrin, Chlorpyrifos, Cyfluthrin, Deltamethrin, Dichloropropine, Dichlorvos, Diquat dibromide, Disulfoton, Endosulphan, Hydramethylnon, Imidacloprid,	Yes <input type="radio"/>	No <input type="radio"/>	N/A <input type="radio"/>



Spill Prevention

The tried and true adage "An ounce of prevention is worth a pound of cure" holds very true when applied to the inevitable spills and releases that will occur at your shop. Quick responses to spills will help to reduce the impacts of the spill and reduce your potential expense, lost time, and general heartburn. Proactive preparation to avoid releases and to make those that occur less harmful is always to your advantage – and it typically is a simple procedure.

Spill Prevention, Control, & Countermeasure (SPCC) Planning
If your facility has the capacity to store more than 1,320 gallons of petroleum product or waste (e.g. used oil), then a spill plan may be required. To calculate storage capacity, count only tanks/containers that are 55 gallons or larger. Contact your technical assistance provider to assist you with this plan.

SP1 legal	Does your shop have a SPCC plan in place? Answer "n/a" if your facility does not fit the SPCC description above. (Contact your technical assistance provider for assistance with this topic.)	Yes <input type="radio"/>	No <input type="radio"/>	N/A <input checked="" type="radio"/>
SP2 prog.	If you responded "n/a" to SP1 above, have you developed and implemented a written spill response plan that has been "EcoBiz approved"? (A plan outline and example spill plan is available upon request).	Yes <input type="radio"/>	No <input type="radio"/>	N/A <input checked="" type="radio"/>
SP3 prog.	Are adequate, clearly marked, spill containment kits available and maintained in all areas where fluids are stored or handled? How many spill kits are now in place?	Yes <input type="radio"/>	No <input type="radio"/>	N/A <input checked="" type="radio"/>
SP4 prog.	Do your employees know where spill kits and spill response plans are located?	Yes <input type="radio"/>	No <input type="radio"/>	N/A <input checked="" type="radio"/>

Benefits

Website Profile <https://ecobiz.org/>

- Location, website, and phone number listed the EcoBiz.org map and certified business page. Businesses will have the option to post additional profile information and a logo or picture. Newly certified businesses also be featured on blog and social media platforms.

Certification Logo Usage

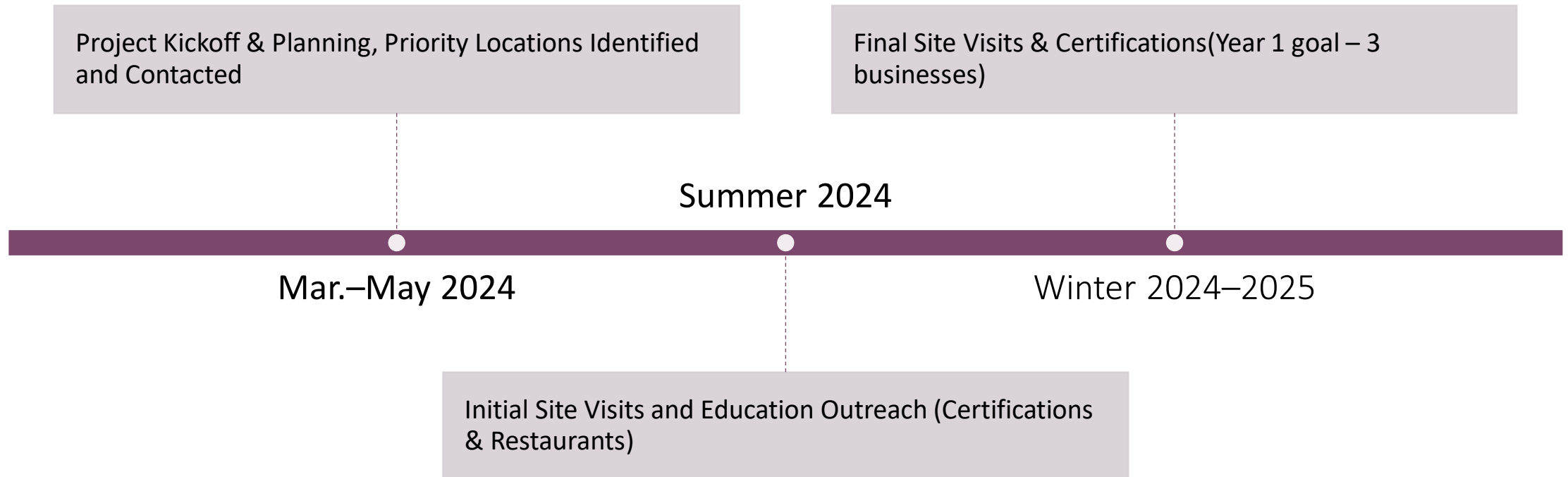
- Certified businesses are encouraged to use the EcoBiz logo to promote certification on their websites, advertisements, vehicles, uniforms and other promotional materials.

Certification is free, valid for three years, and endorsed by Oregon DEQ

Provides outreach material and free resources (spill kits)



Business Outreach Timeline- Year 1



Downtown business outreach approach

- High priority locations along Gasoline Alley
 - Recurring IDDE cases
- Restaurant focused outreach
 - Oil/grease and waste disposal practices & spill prevention
 - Storm system education
 - Signage

**EcoBiz certifications not available yet*



UPAG focus questions



- What ideas do you have to help encourage business participation in the certification program?
- What may prevent businesses from participating?
- If you were an auto or landscape business owner, would you find this program valuable to your business?

Discussion & Feedback

Look ahead




**May 1, 2024: Stormwater Master Plan & Groundwater Protectiveness
11am-12:30pm Hybrid Meeting (Boyd Acres or MS Teams)**

Outcome: Feedback on master plan prioritization criteria. Input on potential changes to UIC location and design standards.

June 5, 2024: Newport Avenue Stormwater Tour
11am-12:30pm (+optional lunch!)

Erosion Control Workshop- Registration Open!

www.cwtacademy.com/bend-cescl-live

 Presents

CESCL CERTIFICATION AND EROSION CONTROL WORKSHOP

May 2, 2024
City of Bend Council Chambers, 710 NW Wall St


1st Day Admission is FREE but you must register by April 24! Space is limited - so register today!

Join us for a full day workshop discussing stormwater and erosion and sediment control for construction activity in the Bend area. Presentations will be given by a variety of speakers including DEQ, City of Bend, OSU and CWT. Lunch will be provided. See the following page for the agenda.

Want to Become CESCL Certified?
Attend day 2 to complete CESCL Certification course, which satisfies the 1200C, 1200CN and 1200CA requirements. **Space is limited!**


Day 2 Reduced Fee: \$200.00

CESCL COURSE DATES:
MUST ATTEND BOTH DATES TO BE ELIGIBLE


 May 2-3
Day 1: 710 NW Wall St
Day 2: 22395 McGrath Rd
Time: 8a-4p both days.

QUESTIONS
JEN LEE (509) 947-6583
JENL@CWTACADEMY.COM

TO REGISTER USE QR CODE:



OR GO TO:
WWW.CWTACADEMY.COM/BEND-CESCL-LIVE



6 CEUs for Oregon CCB license holders available for attending!
All registrations are non-refundable and must be received by Apr 24, 2024.

Day 1: Erosion Control Workshop - May 2 - 8a - 4p - No Charge

710 Wall St - City Hall Council Chambers



8:00a - 8:15a: Breakfast/ Meet and Greet
8:15a - 9:15a: Regulatory Overview (Staff & DEQ)
9:15a - 10:30a: Creating an Effective Erosion & Sediment Control Plan (CWT)
10:30a - 10:40a: Break
10:40a - 11:50a: Operational and Perimeter BMP Selection (CWT)
11:50a - 12:00p: Break for Lunch
12:00p - 12:45p: Lunch and Learn - Revegetation in Central Oregon (OSU)
12:45p - 12:55p : Break for Lunch Cleanup
12:55p - 1:45p: Covering and Conveyance BMP Selection (ACF West)
1:45p - 2:20p: Spill Prevention and Response (CWT)
2:20p - 2:30p: Break
2:30p - 4:00p: Local BMP Discussion, Inspections, Case Studies and Q&A (Panel)

Day 2: Completion of CESCL Certification - May 3 - 8a - 4p - \$200 per person

22395 McGrath Rd - Water Reclamation Facility - Kerri Training Rm

8:00a - 9:00a: Requirements of a WA CESCL and the SWPPP (CWT)
9:15a - 10:45a: Permitting & YDO (CWT and Hudspeth Land & Water)
10:45a - 11:45a: Inspections and CESCL Jeopardy (Greenwood Environmental)
11:50a - 12:30p: Exam
12:30p - 1:15p: Lunch (on your own), then to BMP Workshop
1:15 - 4:00p - Field BMP Activity

Attendance at Day 1 and Day 2 are required for all wanting to be CESCL certified or recertified. The second part of Day 2 will be conducted outside. We will discuss different BMPs that are used on construction activity and will install them at the site. We will witness a hydromulch application and discuss dust suppression and revegetation techniques. Finally, we create a mock rain event and test the BMP installations against the storm. Participants should plan for hot weather or rain. Pollen or other allergens may be a consideration. Gloves, sturdy footwear, and water bottles are all a must.

All registrations are non-refundable and must be received by Apr 24, 2024.

Thank you!

Accommodation Information for People with Disabilities



To obtain this information in an alternate format such as Braille, large print, electronic formats, etc. please contact Lori Faha at lfaha@bendoregon.gov or (541) 317-3025; Relay Users Dial 7-1-1.