

US EPA ARCHIVE DOCUMENT

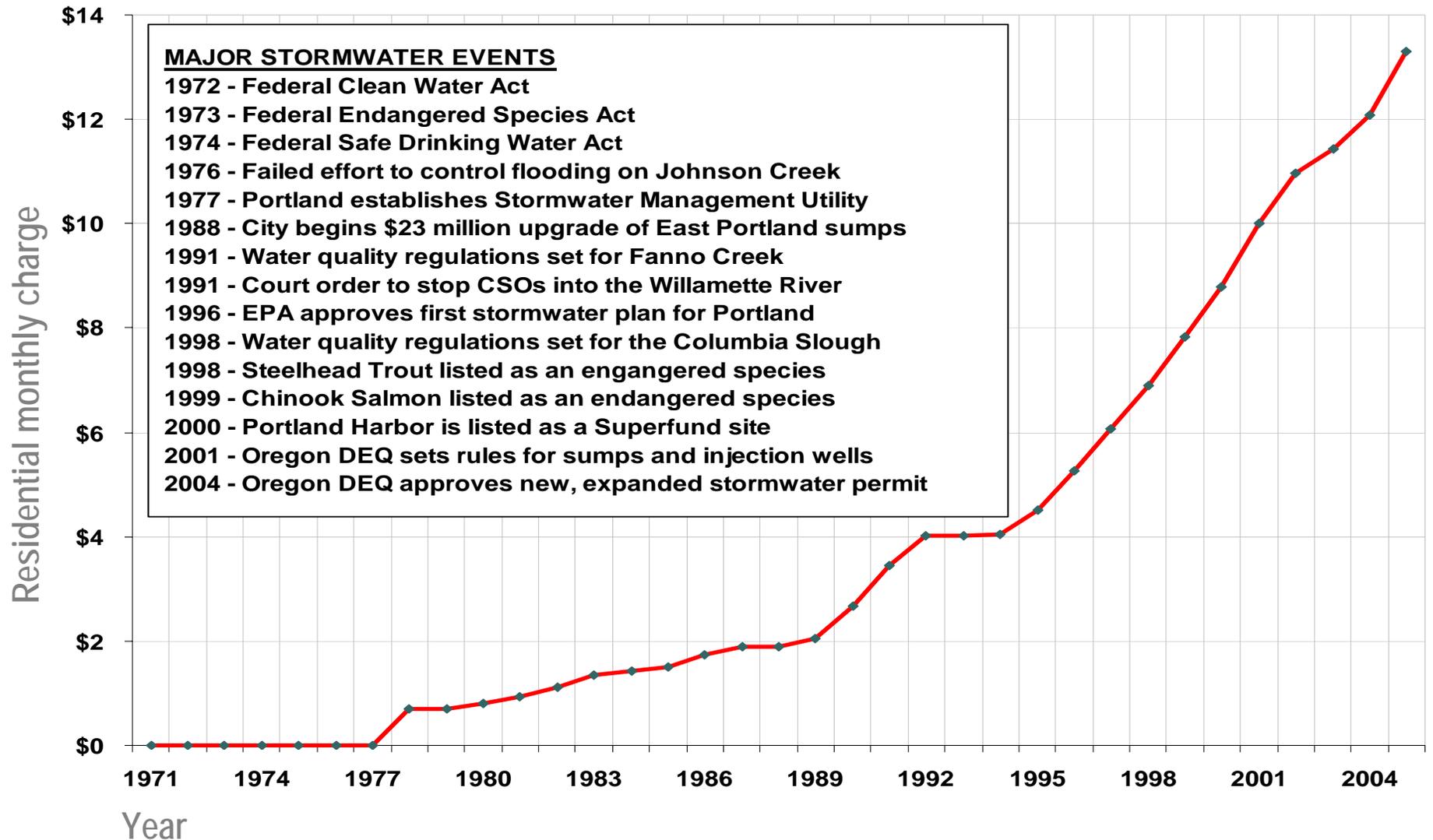
**In the past,  
stormwater  
management meant  
managing floods and  
drainage...**



...today we're required  
to protect *and* improve creeks,  
streams, rivers, groundwater, fish,  
wildlife and prevent and clean up  
toxics in the Willamette River...



# This evolution has left its mark on monthly stormwater charges...

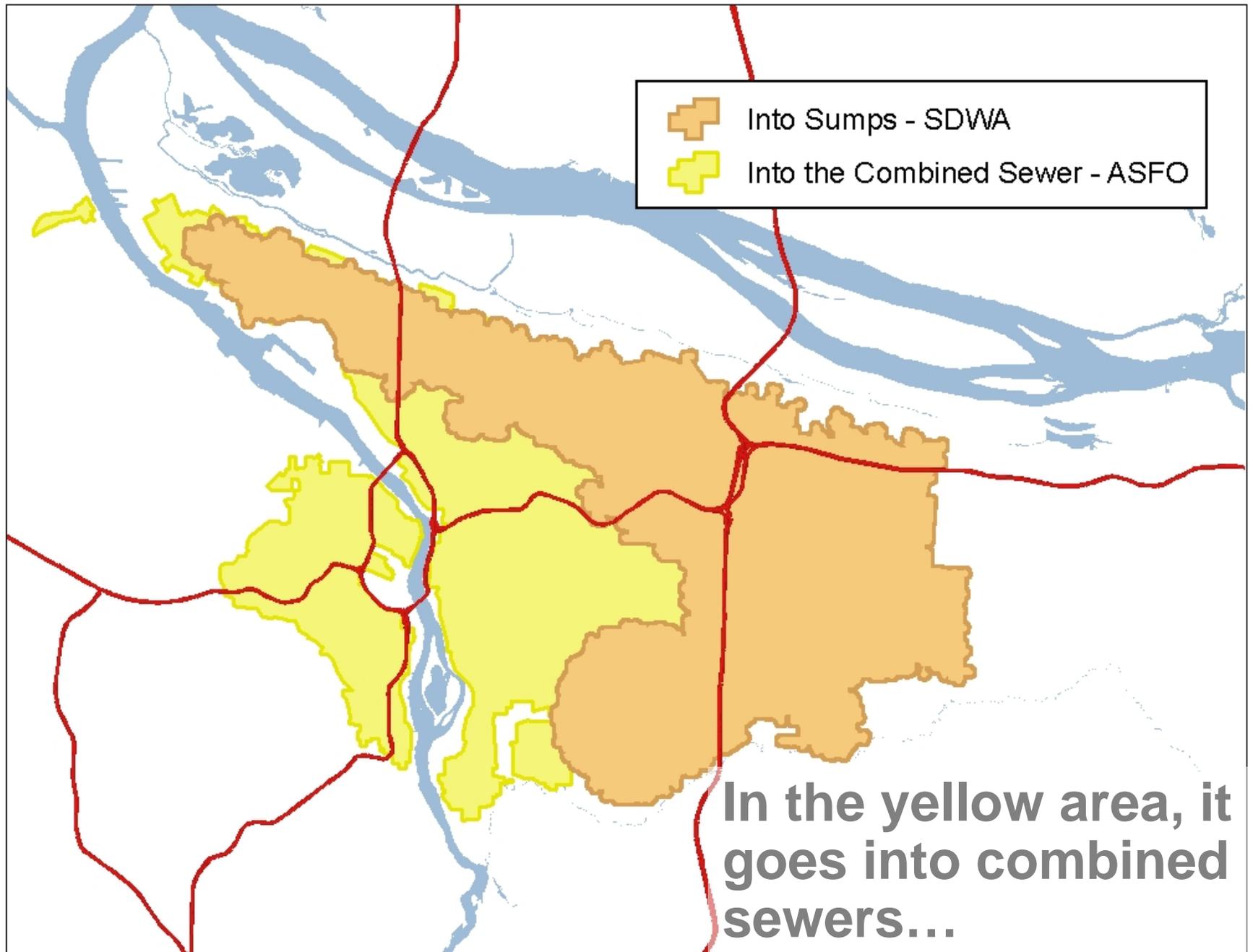


**What does this mean on the ground?**



Into Sumps - SDWA

**In this area, water goes  
into the ground...**

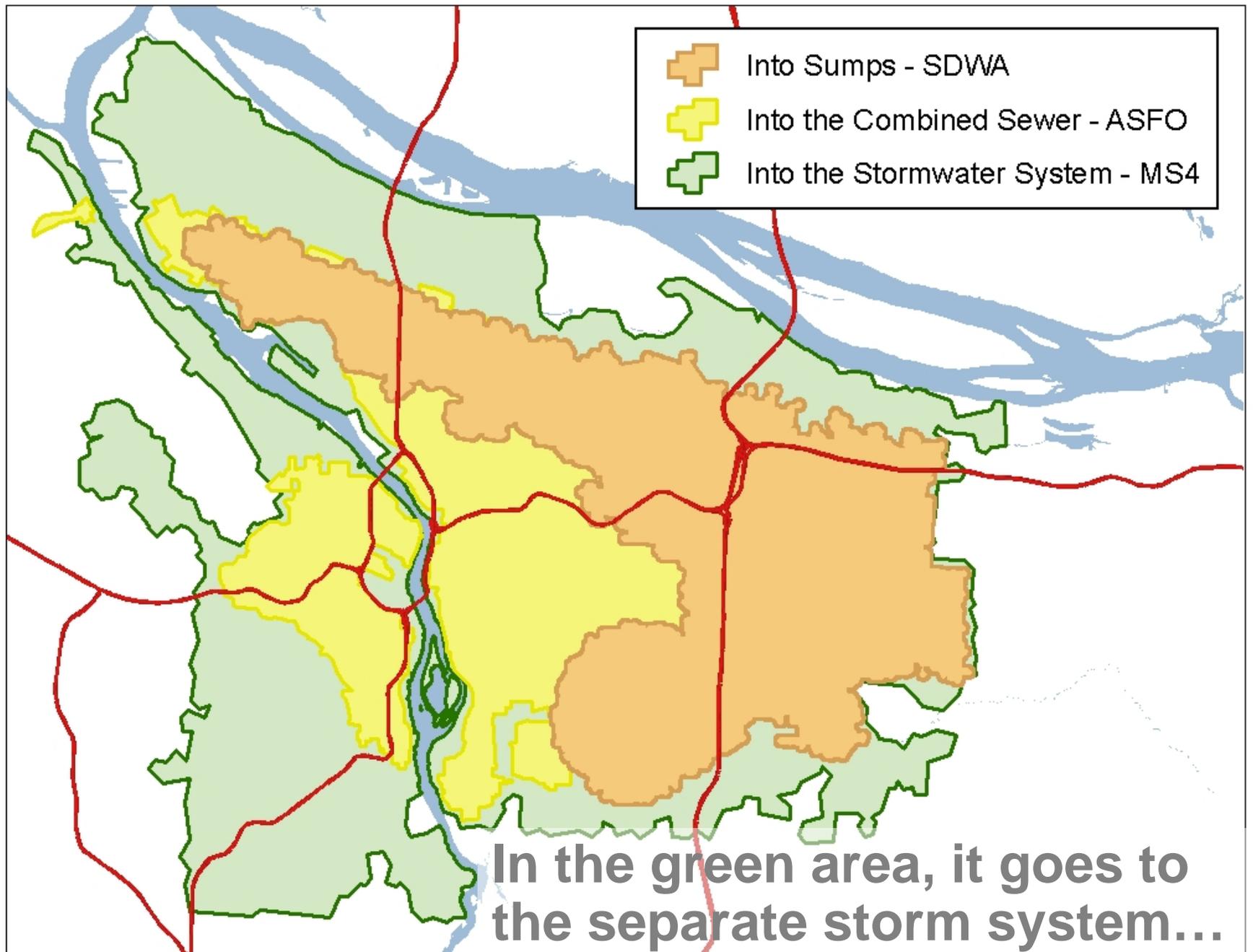


Into Sumps - SDWA



Into the Combined Sewer - ASFO

**In the yellow area, it goes into combined sewers...**



# Portland's challenges are not unique...

Stormwater rules, costs stumping town officials

*The Times of NW Indiana – August 9, 2004*

Another higher charge looms for Atlantans

*Atlanta Journal-Constitution – August 6, 2004*

New EPA runoff rules will hit cities, towns in 2003

*The Boston Globe – July 9, 2000*

DNR refuses to pay city storm water utility fees

*The Capitol Times – Madison, Wisconsin – October 25, 2001*

Lack of funds halts Nine Mile Run ecosystem restoration

*Pittsburgh Post-Gazette – July 13, 2004*

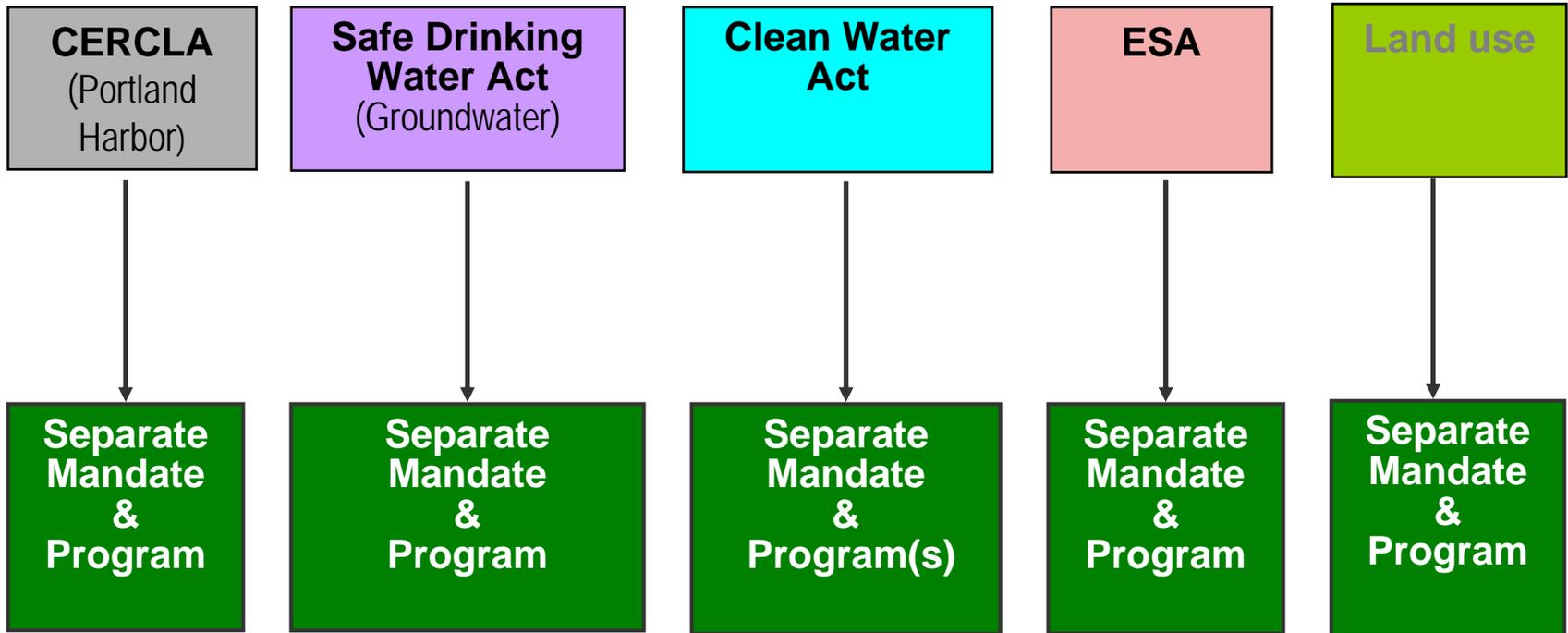
City approves cleanup funds for waterway

*TRIBNET.com – Tacoma News Tribune – April 23, 2003*

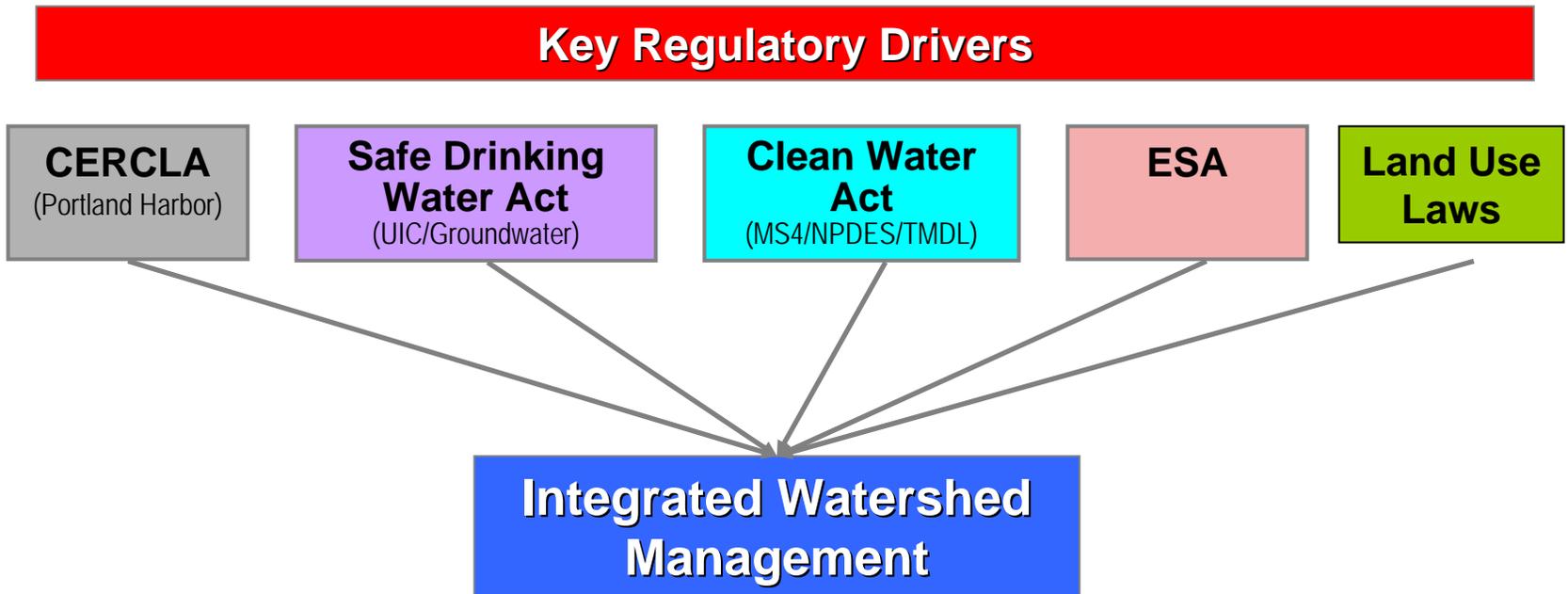
**Portland's response is unique...**

# Traditional Approach

## Key Regulatory Drivers



# Integrated Approach



# **Examples of Watershed Management at work...**

# Sanitary line exposed by erosion



# Cracks/joints leak sewage into creek.



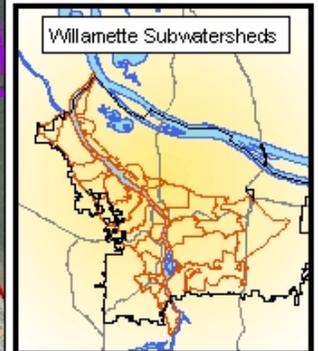
SW Texas

# Stephens Subwatershed 2003 Aerial Photo

## Legend

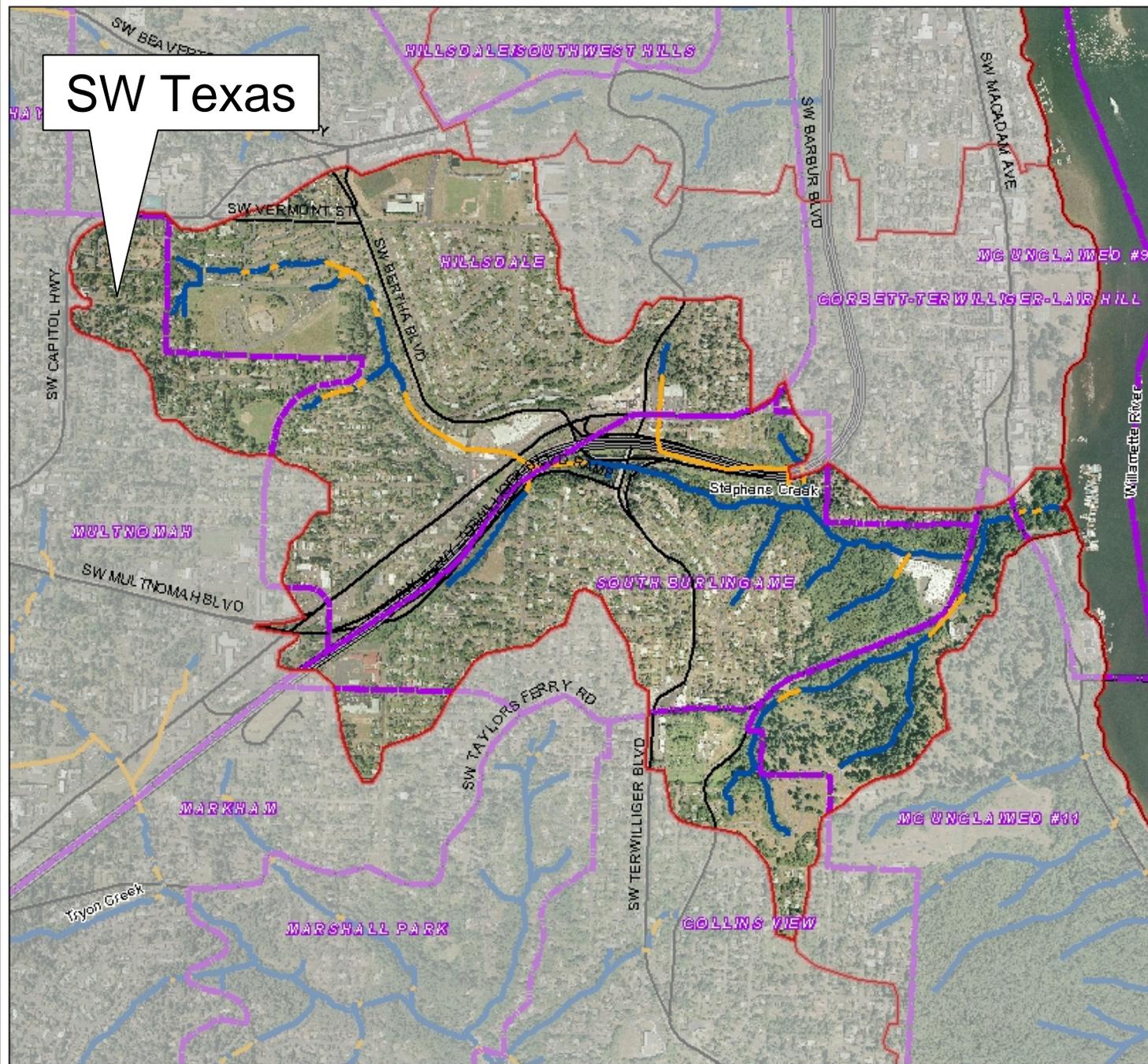
- Subwatershed Boundary
- City of Portland
- Neighborhoods
- Open Channel
- Culvert

Data Sources:  
Subwatersheds - BES  
Streams - City of Portland,  
Bureau of Planning  
Neighborhoods - City of  
Portland, Office of  
Neighborhood Involvement  
Aerials - City of Portland

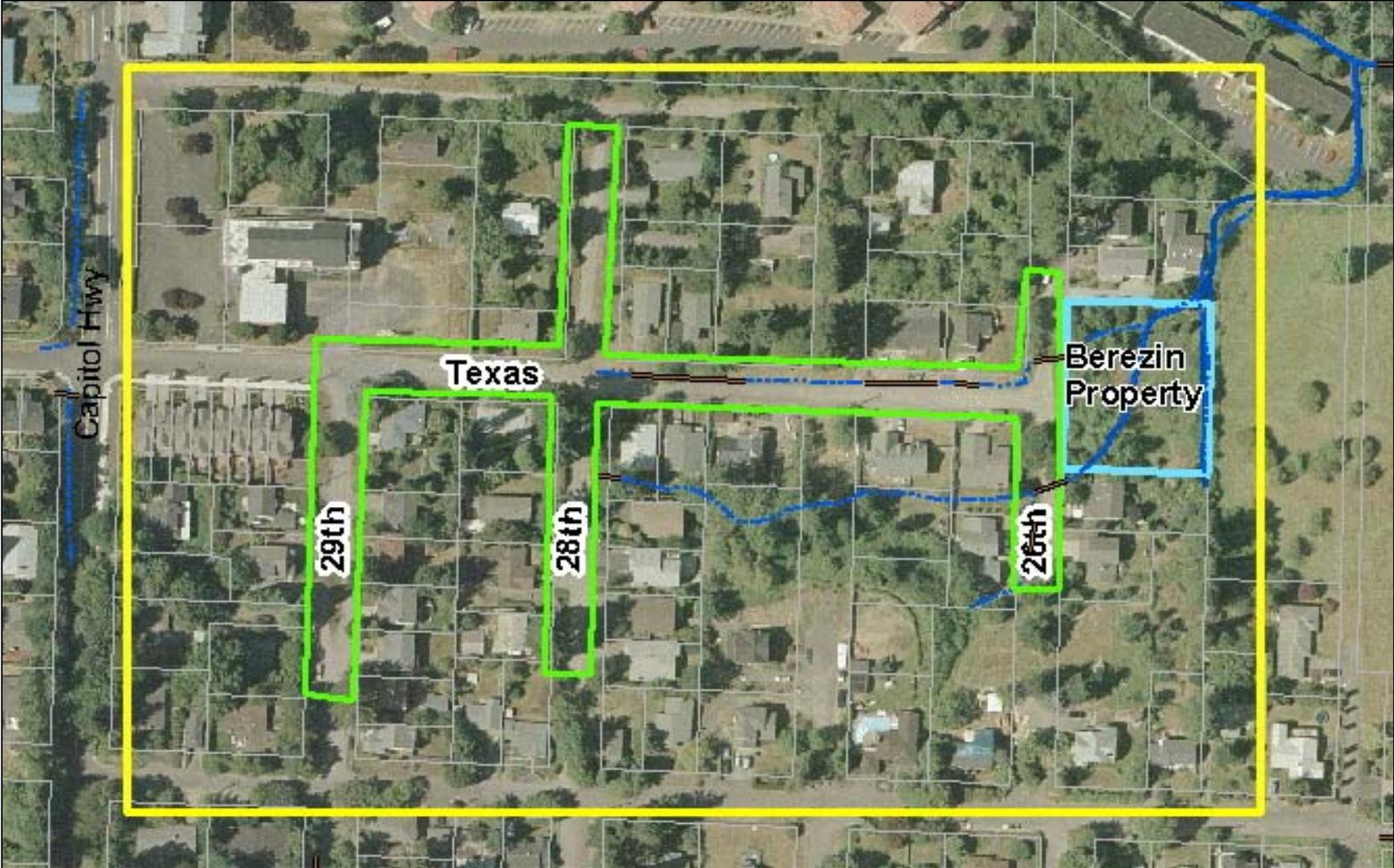


0 500 1000 1500 2000  
Feet

June, 2004



# Project Area



# Stephens Creek/Willamette Confluence



Oregon Department of Fish and Wildlife rated the mouth of Stephens Creek among the most valuable habitat areas in the City.

# NE Siskiyou Street

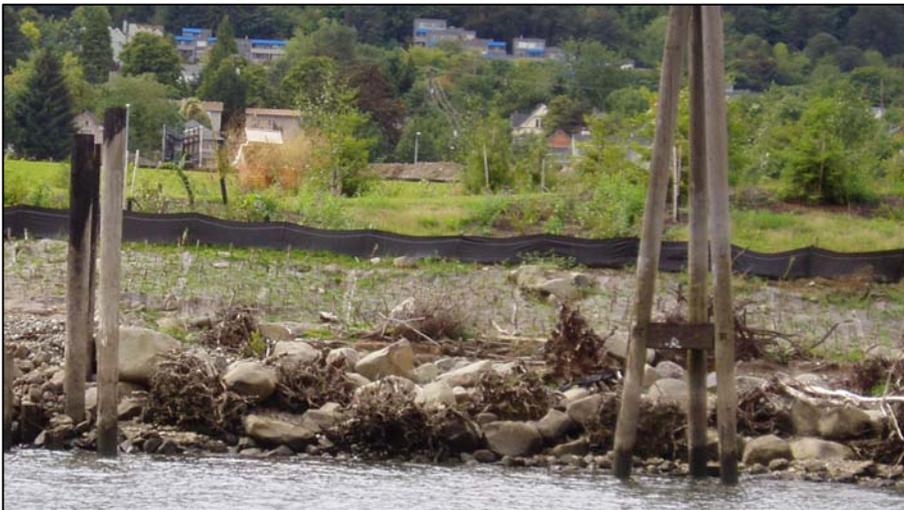


Water Quality Friendly Streets that manage stormwater on the surface are becoming viable alternatives to conventional streets.

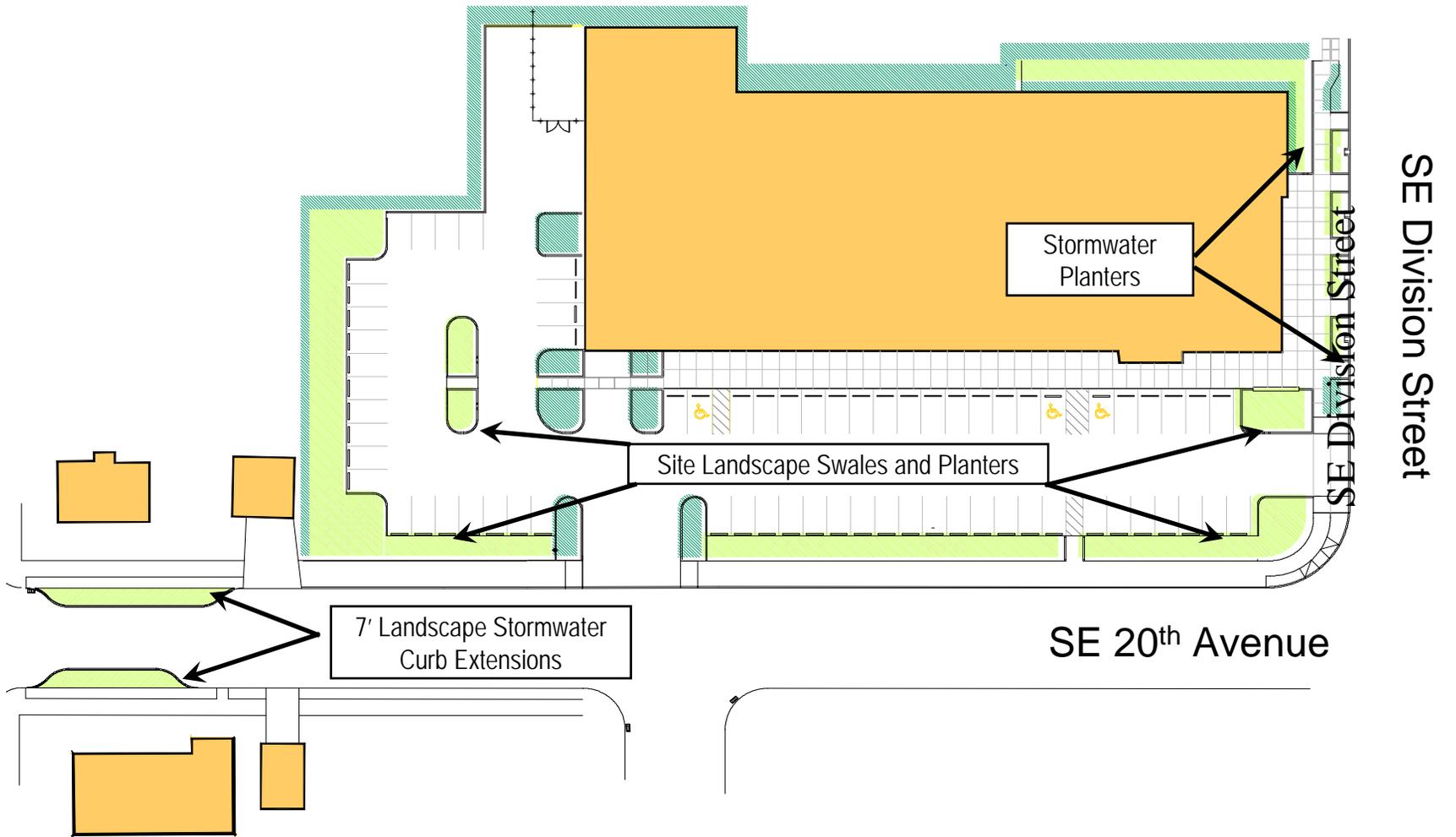
# Glencoe School



# South Waterfront stormwater facility



# New Seasons Supermarket



SE Division Street

SE Division Street

SE 20th Avenue

N





The Green Alley

1954

OPEN