GOOD DRAINAGE, GOOD VIBES

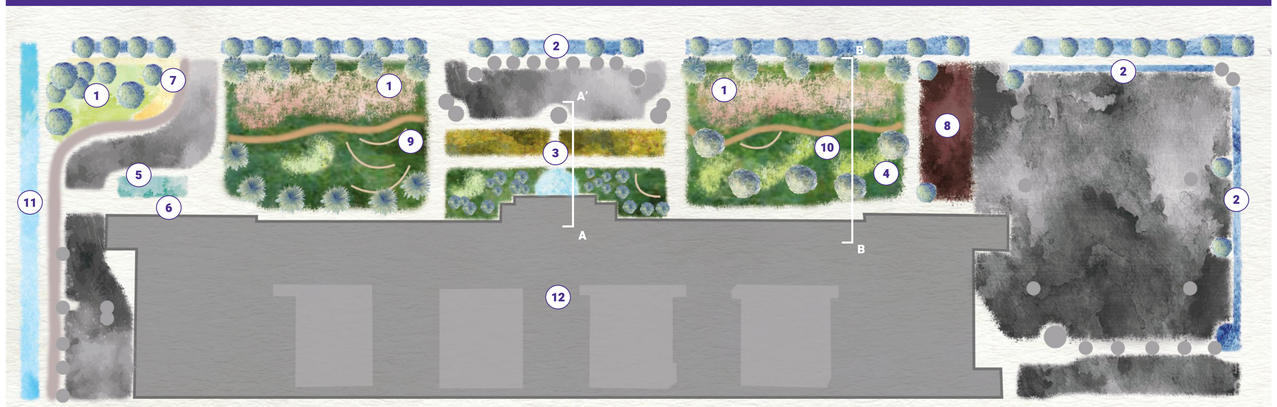
revitalizing, reprogramming, and revealing stormwater at South Eugene High School

"Good Drainage, Good Vibes" demonstrates a regionally relevant green infrastructure site redesign that combines the benefits of stormwater treatment, climate mitigation, active transportation planning, and ecological education, catering to current user experience with an eye towards informing resilient urban watershed management.

Despite South Eugene High School's proximity to Amazon Creek, a major local waterway, this connection is currently **invisible** to students and community users of the nearby bike path. The front entry to the school is flanked by large, flat expanses of lawn which become waterlogged in the wet Oregon winters and go largely **underutilized** by students. The water flowing off these lawns, parking lots, and rooftops, is piped unfiltered into the **degraded** and channelized creek, to eventually flow into the Long Tom and finally Willamette Rivers.

"Good Drainage, Good Vibes" envisions a school campus that manages stormwater on-site and makes the flow of stormwater demonstrable and legible to the community, **revealing** the invisible, **reprogramming** the underutilized, and **revitalizing** the degraded.

South Eugene High School site plan

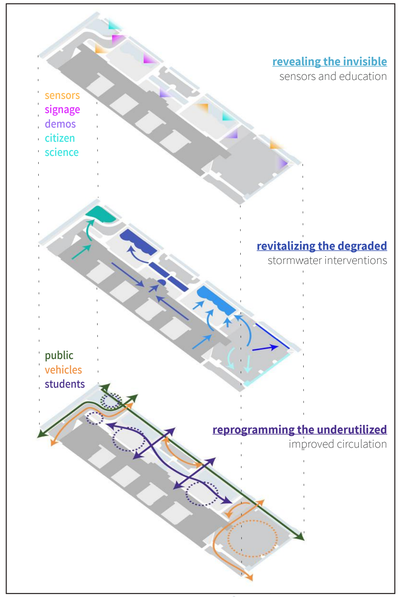


stormwater interventions

1. rain gardens
2. parking lot and median stormwater planters
3. rooftop cascade and swale
4. trees

other site elements

5. extensive green roof - covered bike parking
6. green facade
7. bike path and education boardwalk
8. permeable parking
9. seat walls
10. bermed lawn
11. Amazon Creek
12. SEHS building

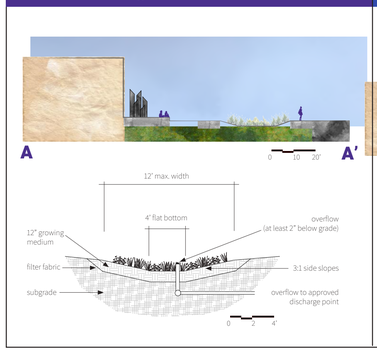


Who is Learning?

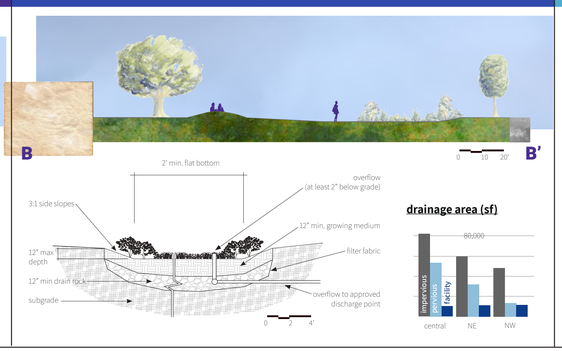
- SEHS Students
- University of Oregon Students and Faculty
- City Designers and Maintenance Staff
- Eugene Community

What can be Learned?	How is it Measured?	Where on Campus?
Water Temperature	On Site Sensor	Parking lot planters and rain gardens
Rate of Flow	On Site Sensor	Near cascade fountain or green facade
pH	On Site Sensor	Rain gardens
Drainage Rate	On Site Demo	New permeable parking lot
Total Rainfall	On Site Demo	Near cascade fountain
Sediment Buildup	On Site Demo	Inlets of parking lot planters
Plant and Animal Diversity	Yearly Survey	Rain gardens and planters
Plant Growth and Condition	Photo Monitoring + Social Media	Education boardwalk or rain gardens
Ecology Information	Sign or QR Code	Education boardwalk or rain gardens
Watershed Information	Sign or QR Code	Rain gardens and planters
New Data!	Conducted by SEHS or UO Students	Designed by SEHS or UO Students

vegetated swale



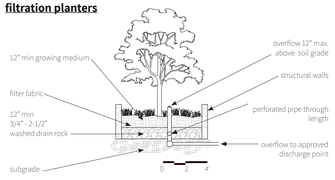
rain garden



drainage area (sf)

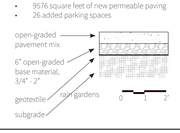
parking lot interventions

filtration planters

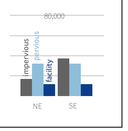


porous asphalt

- 9576 square feet of new permeable paving
- 26 added parking spaces

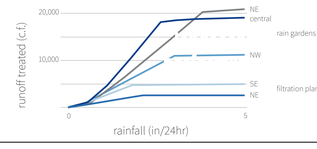


drainage area (sf)

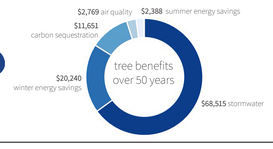


landscape performance

100% treatment for 1.4" storm



51 trees added



Native & Pollinator Plants

On-site monitoring and interpretive signage provide educational opportunities to students and the public

New paths and seating provide access and gathering spaces in the previously underutilized front lawns

New trees pay for themselves in under 25 years through stormwater management, carbon sequestration, and energy savings

On-site management of impervious surface runoff reduces monthly stormwater fees by over $1,000

The addition of over 20,000 new ground cover plants and shrubs creates food and habitat for pollinators, birds, and amphibians

Over 90% of new plant species included on site are native to the Willamette Valley

a multi-functional landscape

with **social** **economic** and **environmental** benefits