Irrigation runoff and erosion rills.

One of several Sequoia Creek signs.

New riparian planting near apartments.

Railroad crossing.

Retail parking drainage.

Sequoia Creek

10th Annual Urban Creek Tour

Corvallis, Oregon

www.bentonswcd.org

1 NW Highland Dell Dr.

Sequoia Creek begins its journey in the hills west of Highland Drive, in the small valley nestled between Chip Ross Park and Brandis City Park.

2 Wilson Elementary

The creek runs through the neighborhood between Highland and Satinwood and enters a pipe near Walnut Blvd, which marks the creek's transition to the valley bottomlands.

3 Coffee Culture

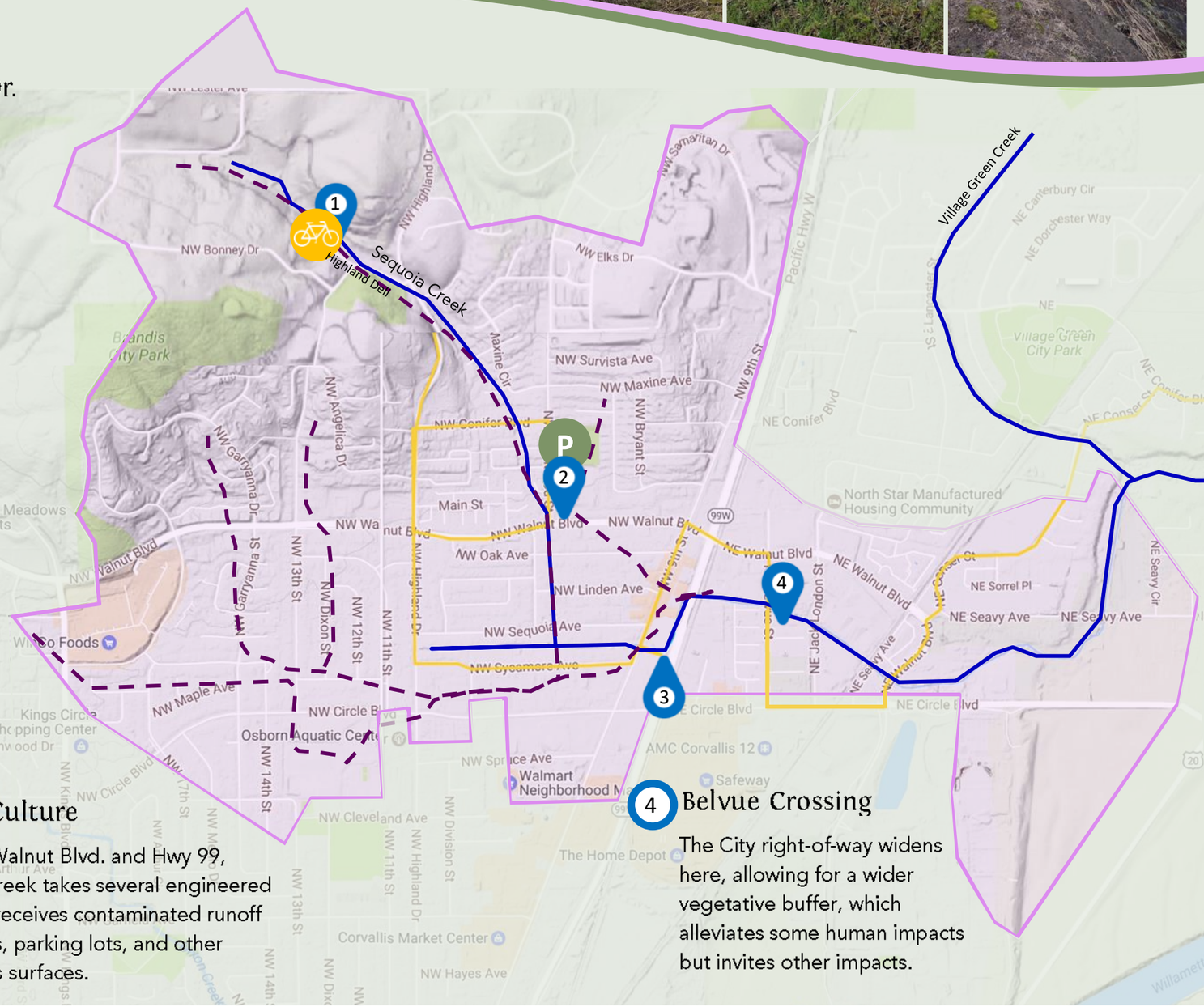
Between Walnut Blvd. and Hwy 99, Sequoia Creek takes several engineered turns and receives contaminated runoff from roads, parking lots, and other impervious surfaces.

4 Belvue Crossing

The City right-of-way widens here, allowing for a wider vegetative buffer, which alleviates some human impacts but invites other impacts.

5 Stewart Slough

Sequoia Creek and Village Green Creek converge on City right-of-way and flow into Stewart Slough.



Map Legend

- Current creek
- Historic creek location
- Trolley route
- Tour stop
- Bike start location
- Trolley start location
- Sequoia Watershed

Sequoia Creek

The Sequoia Creek watershed contains 1,357 acres. Its headwaters originate near Chip Ross Park. The stream flows through a residential area that increases in density as it heads down hill, and enters its most urbanized stretch as it hits the valley bottom. Unlike many of the urban waterways in Corvallis, Sequoia re-enters a markedly less urban corridor before converging with the Willamette. As we journey along this creek, we are able to gain a better understanding of how waterways have been perceived and manipulated to meet the needs of an ever changing and growing human population. Are you satisfied with the current state of this creek? If not, what would you change?

Only Rain Down the Drain
City of Corvallis Stormwater Program

Sierra Club
Founded 1892

Corvallis sustainability Coalition

Benton Soil and Water Conservation District

1. Highland Dell Drive

Altered headwaters

Sequoia Creek's headwaters begin from natural seeps in Chip Ross Park. The water flows into a subdivision where it combines with stormwater run off and irrigation drainage, which collects in a detention pond.

The detention pond extends the seasonal waters of the creek and provides wildlife habitat for terrestrial and aquatic life. The pond may inhibit natural flows of gravel downstream and fish migration upstream.

Below the pond, the creek flows down the north side of Highland Dell Drive, where it was relocated when the street was built in the 1990s. After crossing beneath Highland Avenue, the creek flows through a neighborhood toward Wilson Elementary School.

Presented by area residents Jerry Paul and Tom Olsen.

2. Wilson Elementary

Trenched and piped

The City of Corvallis has been constructing a largely unseen stormwater conveyance system for over 100 years. The system includes 183 miles of storm water pipe, 6,210 catch basins, 3,350 manholes, 30 storm water detention ponds, 390 outfalls, plus 20 miles of visible urban streams. The streams and conveyance system all require annual funding and maintenance as demands on the system increase.

From the intersection of Satinwood and Walnut, we can see where the visible stream flows into the unseen, subterranean stormwater piping system. At this point, Sequoia Creek loses its natural character and enters a hardscaped system, fundamentally changing the aquatic ecosystem, hydrology, and cultural uses.

Presented by Ted Hart, City of Corvallis Stormwater Specialist.

3. Coffee Culture

Fish passage barriers

Culturally significant fish species, such as lamprey and salmonids, require off channel habitat for protection and rearing their young. Prior to development, this location was part of an extensive wet prairie and wetland landscape. Sequoia Creek would have been teeming with aquatic life as it flowed here.

As the urban stormwater system has developed, barriers to fish migration were unintentionally built as part of the ways to move and control water flow. At this site you can see some of the barriers. The City is exploring ways to remove the barriers while maintaining a functional stormwater system. Some fish species persist under the existing conditions.

Presented by Brian Bangs and Karen Hans, ODFW and Steve Starcevich, USFWS.

4. Belvue Crossing

Social impacts

All forms of human habitation have an impact on our creeks. This site illustrates a direct impact on the water. Camping, whether temporary or permanent, affects the water found nearby. To resolve this water quality impact, we need to address more systemic social issues. The City of Corvallis, Benton County Health Department and the Department of Environmental Quality are looking for sustainable approaches to address this issue.

The information shared by these presenters will improve our understanding so that, as a community, we are able to make informed decisions.

Presented by Sara Hartstein & Chris Gray, Benton Co. Health and Priscilla Woolverton, DEQ.

5. Stewart Slough

River channel: 1850-1990

Sequoia Creek flows into Stewart Slough, which is part of the historical Willamette River system. Looking out over the slough, you see a braided stream channel. This is probably what much of the Willamette Valley floor once looked like. The upper reach of the Willamette from Eugene to Albany has suffered the greatest loss of channel complexity along the entire mainstem.[1]

From here, the water drains northeast, flowing through agricultural land and into a side channel behind the Children's Farm Home. Unlike many of the urban streams in Corvallis, which flow directly from the urban area into the river, Sequoia Creek regains its natural character before converging with the mighty Willamette.

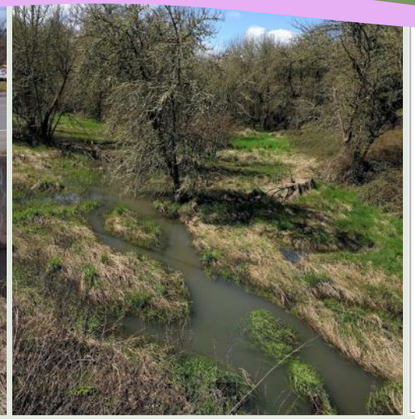
Presented by Guillermo Giannico, OSU Extension, Fisheries.

1. Willamette River Basin Atlas www.fsl.orst.edu/pnwerc/wrb/Atlas_web_compressed/PDFtoc.html

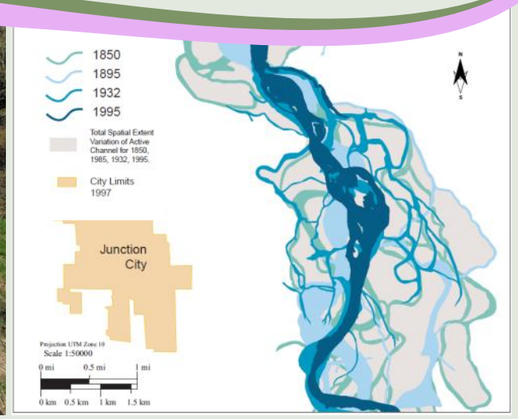
Detention pond near headwaters.

Sequoia heading belowground near Satinwood.

Looking west towards 9th Street.



Stewart Slough



Loss of Willamette channel complexity. [1] Ch.3, p.24