Stormwater Parks

Projects and Guidance

Growth Management Policy Board
November 3, 2022

Stormwater Parks

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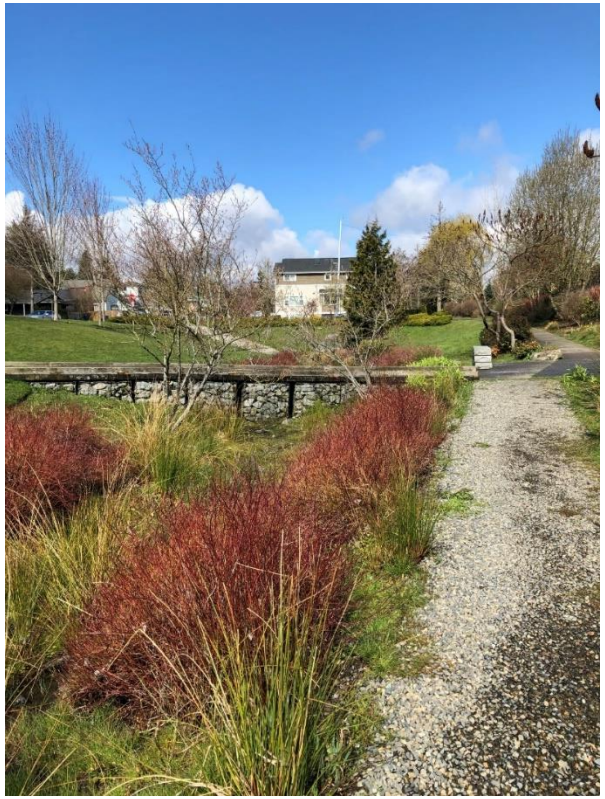
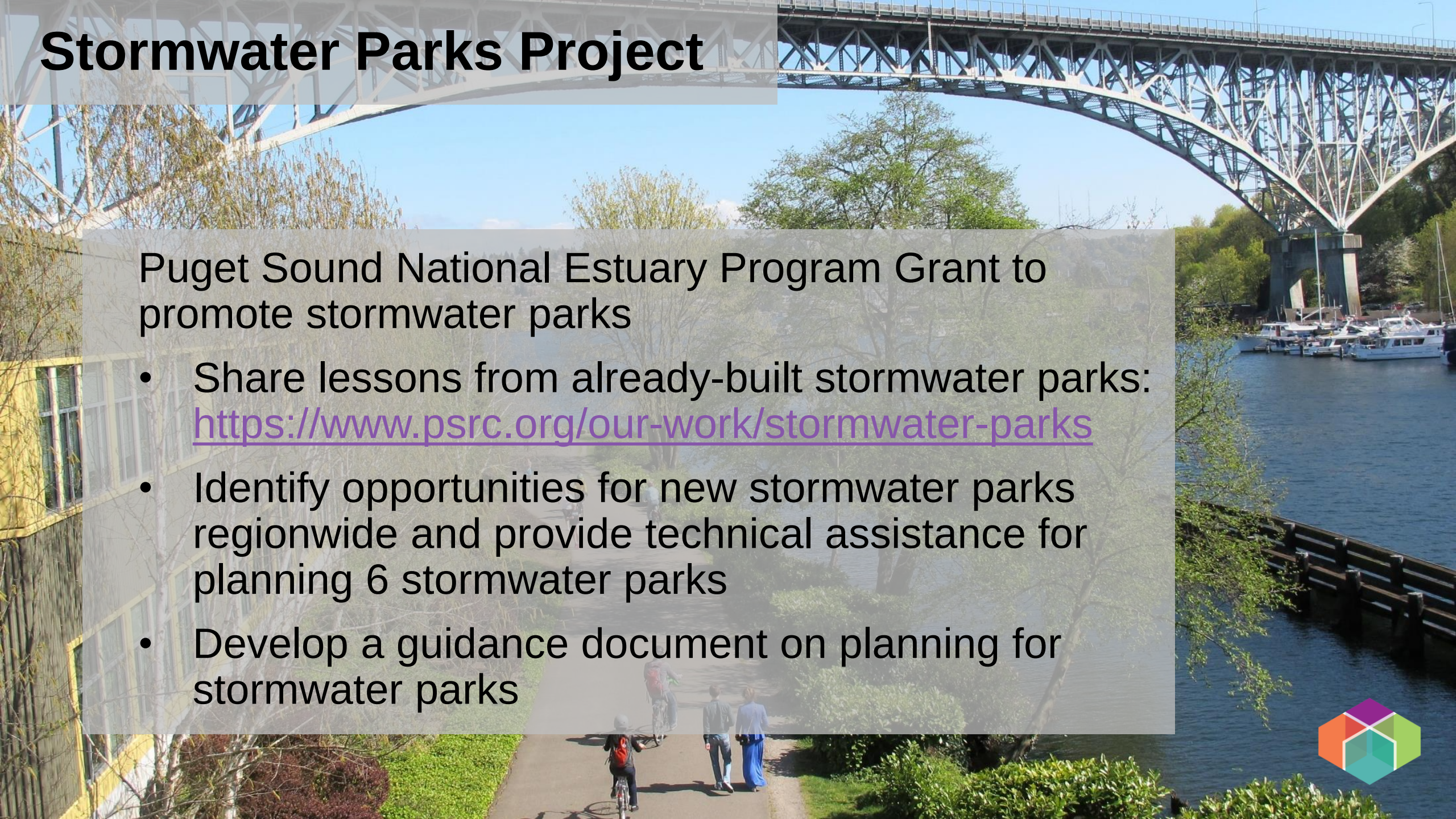
Stormwater Parks

Stormwater parks can have multiple benefits:

- Provide recreation
- Treat, store, and infiltrate stormwater from hundreds of acres
- Address equity when built areas underserved by parks
- Support Tribal treaty rights
- Add natural features and wildlife habitat to an already built park
- Be funded by multiple sources



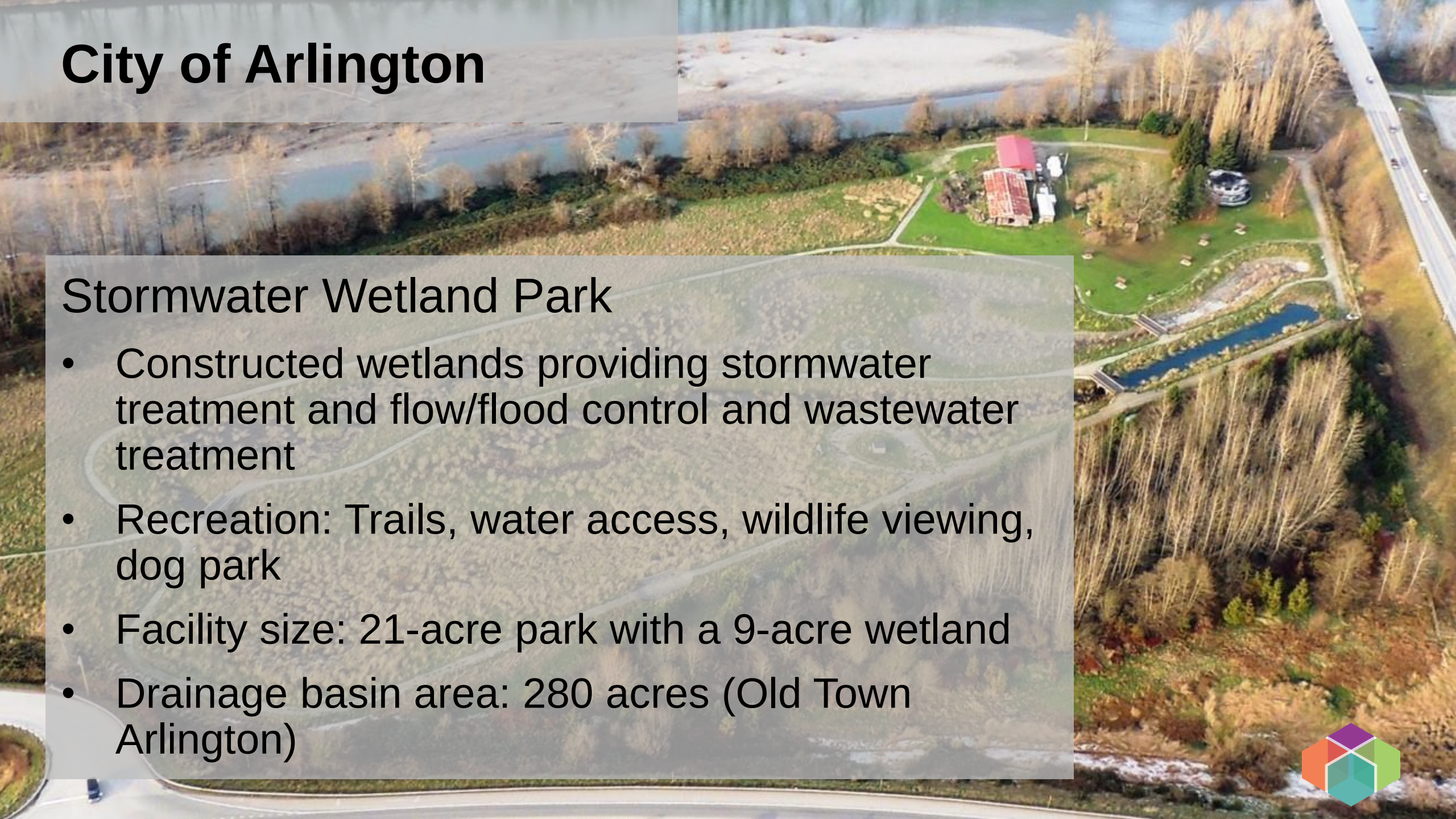
Stormwater Parks Project



Puget Sound National Estuary Program Grant to promote stormwater parks

- Share lessons from already-built stormwater parks: https://www.psrc.org/our-work/stormwater-parks
- Identify opportunities for new stormwater parks regionwide and provide technical assistance for planning 6 stormwater parks
- Develop a guidance document on planning for stormwater parks

City of Arlington



Stormwater Wetland Park

- Constructed wetlands providing stormwater treatment and flow/flood control and wastewater treatment
- Recreation: Trails, water access, wildlife viewing, dog park
- Facility size: 21-acre park with a 9-acre wetland
- Drainage basin area: 280 acres (Old Town Arlington)

Kitsap County

Manchester Stormwater Park

- Small park with natural and engineered stormwater infrastructure that provides treatment and flood control
- Recreation: community gathering space/lawn, walking paths
- Facility size: 0.5 acres
- Drainage basin area: 100 acres

City of Shoreline

Cromwell Park

- Constructed wetland added to an existing park during major renovation, provides treatment and flow/flood control
- Recreation: trails, wildlife viewing
- Facility size: 1.33 acres in a 9-acre park
- Drainage basin area: 109 acres

City of Tacoma/Metro Parks Tacoma

Point Defiance Stormwater Treatment Facility

- Provides stormwater treatment and visual interest in a park
- Recreation: Walking paths
- Facility size: 5,500 SF
- Drainage basin area: 754 acres

Lessons Learned

- Can achieve **multiple benefits** when well sited and designed
- Find opportunities through working with **other departments** and **partners**
- Early **public engagement** leads to greater acceptance
- Having a **project champion and political support** is needed
- Consider **maintenance needs** in project design
- Factor **climate change** impacts into design
- **Vary greatly** in size, function, and cost; **many opportunities** to develop stormwater parks throughout the region

Stormwater Parks Criteria

Criteria for Selecting Sites for Technical Assistance

- Need for equitable access to open space
- Salmon and water quality benefit
- Pollutant loading
- Community engagement and support
- Land ownership

Next Steps

Tomorrow, November 4, TOOLBOX: Peer Networking session on stormwater parks

Guidance document on planning for stormwater parks:

www.psrc.org/our-work/stormwater-parks

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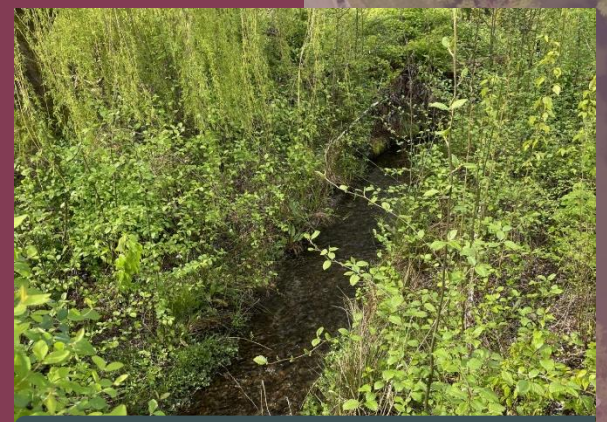
Woodin Creek Park

City of Woodinville

- 5 acres adjacent to Woodin Creek
- Tennis court, half basketball court, paved trail, small parking lot, and covered gazebo
- Discharges stormwater runoff from Woodinville's high traffic downtown core to Sammamish River, currently no treatment

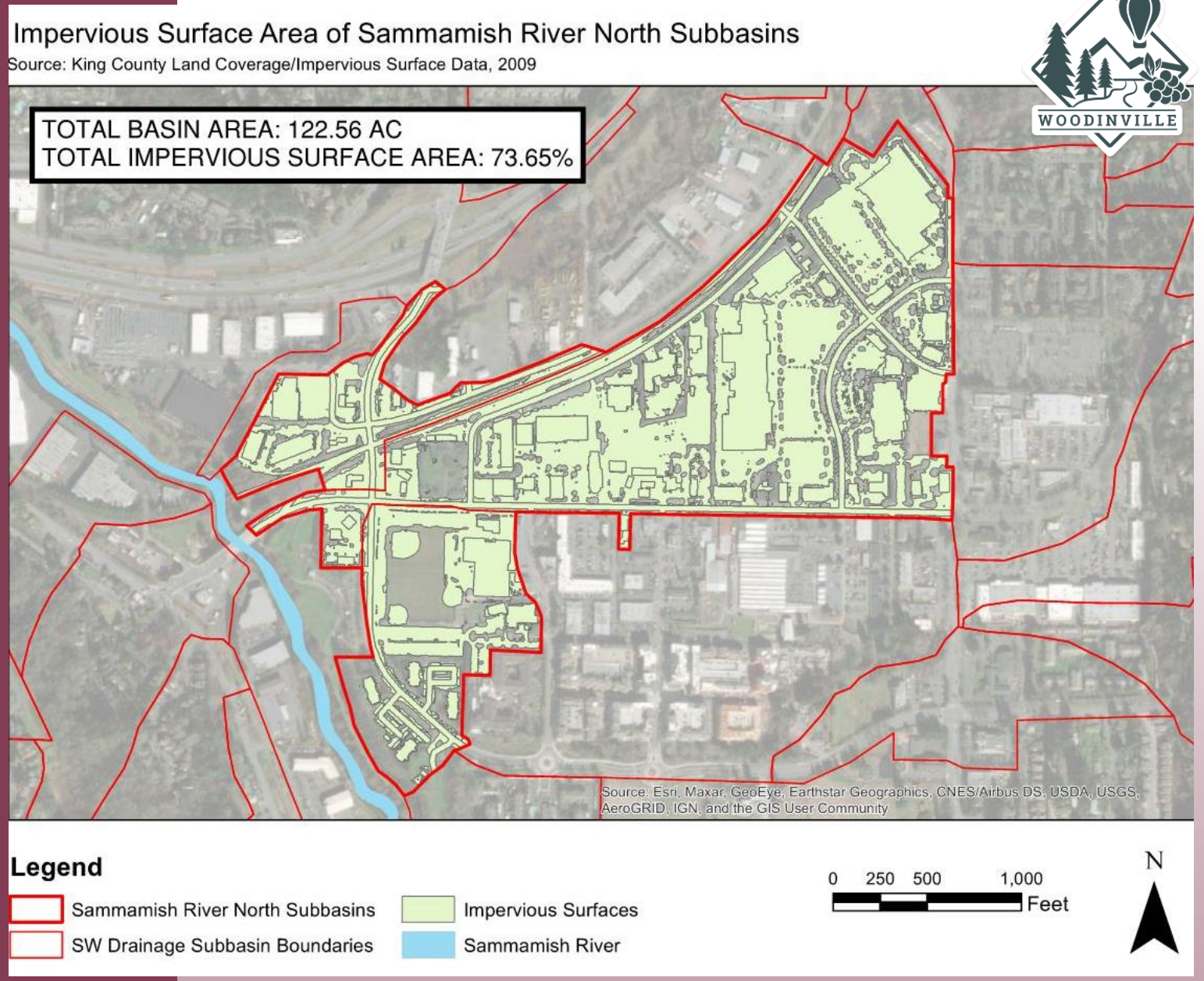


Woodin Creek

A New Approach

Factors that led to support for a stormwater park:

- Park renovation planned
- Woodin Creek and Sammamish River in need of water quality improvement
- Opportunity to retrofit downtown Woodinville with stormwater controls
- Technical assistance for early planning and design



Technical Assistance

- 3 initial design ideas proposed
- City leadership favored 2 design ideas :
  - Constructed wetland : 56% treatment efficiency
  - Modular wetland : 100% treatment efficiency
- Ultimately went with modular wetlands for effective treatment (122.56 acres of water quality treatment), lower maintenance, and active recreation opportunities.

Woodin Creek Park

Constructed wetlands concepts :

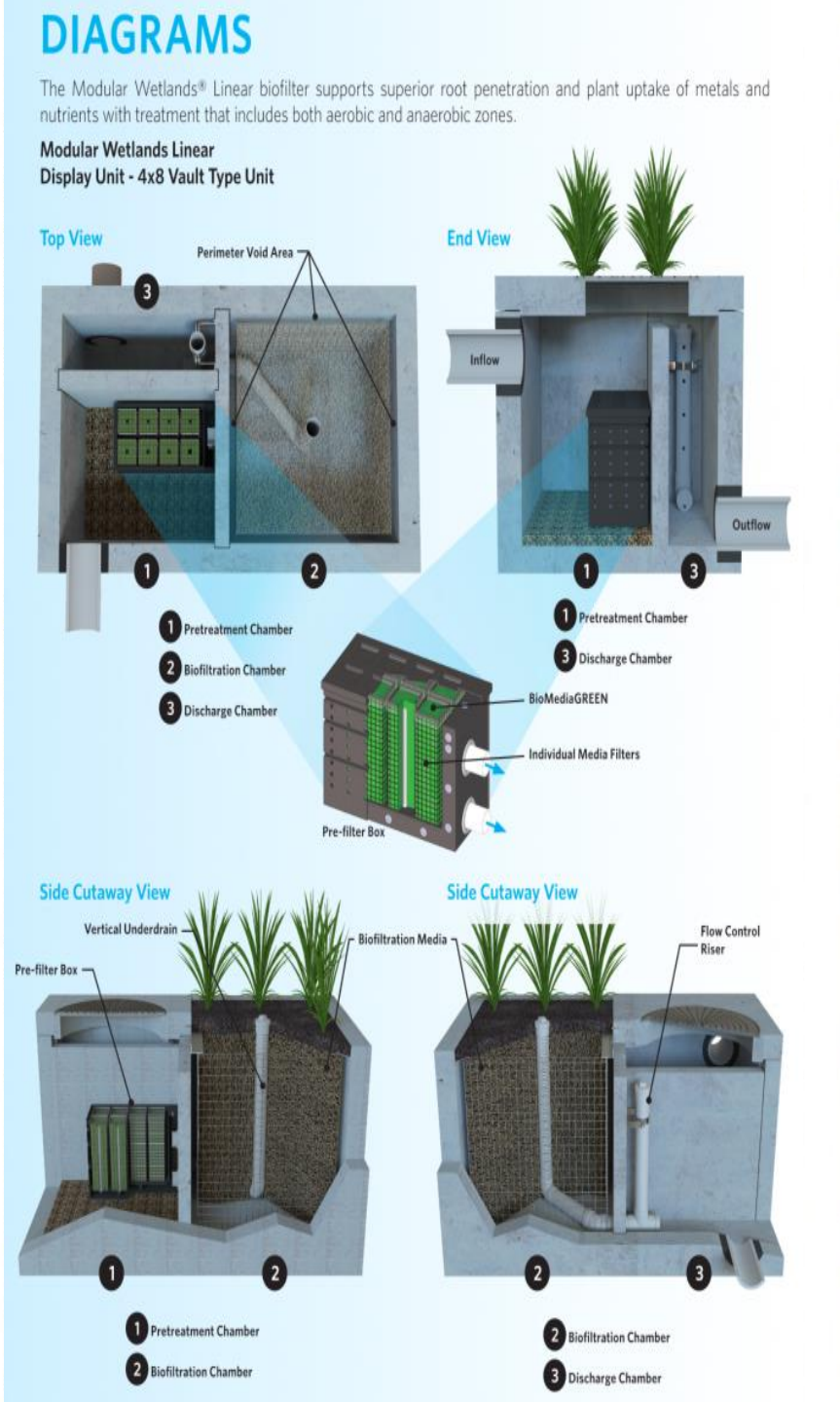
Designed to create wildlife habitat and passive recreation opportunities

Woodin Creek Park

Modular

wetland concepts :

Designed to utilize park space for active recreation and trail access.



Retrofits and Stormwater Parks

- Incorporate 10% design into proposed CIP for Woodin Creek Park rehabilitation
- Coordinate with the Eastrail regional trail corridor planning along Woodinville-Snohomish Road/SR 202
- Proposed CIP projects for compost amended bioswales at trails edges

Woodin Creek Park – Existing Entry

Lessons Learned

- Interdisciplinary team agreement can be difficult (maintenance vs. treatment efficiency vs. permitting)

- Would have liked to have done some public engagement at this stage

Leah Mikulsky, Surface Water Program Coordinator

City of Woodinville

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Kirkland

Technical Assistance

- Upstream Tributary Area = 17.97 acres
- Runoff Treatment Provided = 17.97 acres
- Stormwater Solution Provided = Bioretention cells
- Park Design Provided = Paved trail that extends existing trail to the south. Maintenance access from the west. Interpretive signage, benches, plantings.
- Additional Information = Empty site located under Seattle City Light utility lines. Deficiency in existing storm main and logged to be replaced. Private encroachments into public land.

Kitsap County

Technical Assistance

- Upstream Tributary Area = 74.9 acres
- Runoff Treatment Provided = 12.27 or 74.9 acres
- Stormwater Solution Provided = Bioretention Cells or Boxless Biopod
- Park Design Provided = Trails, green roof shade structure, benches, picnic tables, wildflower gardens, interpretive signage
- Additional Information = Vacant lot, neighbors requested buffers, provided community engagement support

Lynnwood

Technical Assistance

- Upstream Tributary Area = 20.20 acres
- Flow Control Volume Provided = 6.87 acres
- Runoff Treatment Provided = 20.20 acres
- Stormwater Solution Provided = Chambers with Modular Wetland Vault
- Park Design Provided = New playground, picnic shelter, paved trail connecting entrances. Accessibility improvements
- Additional Information = Existing Pond with playground built inside the pond. Flooding and accessibility issues.

Marysville

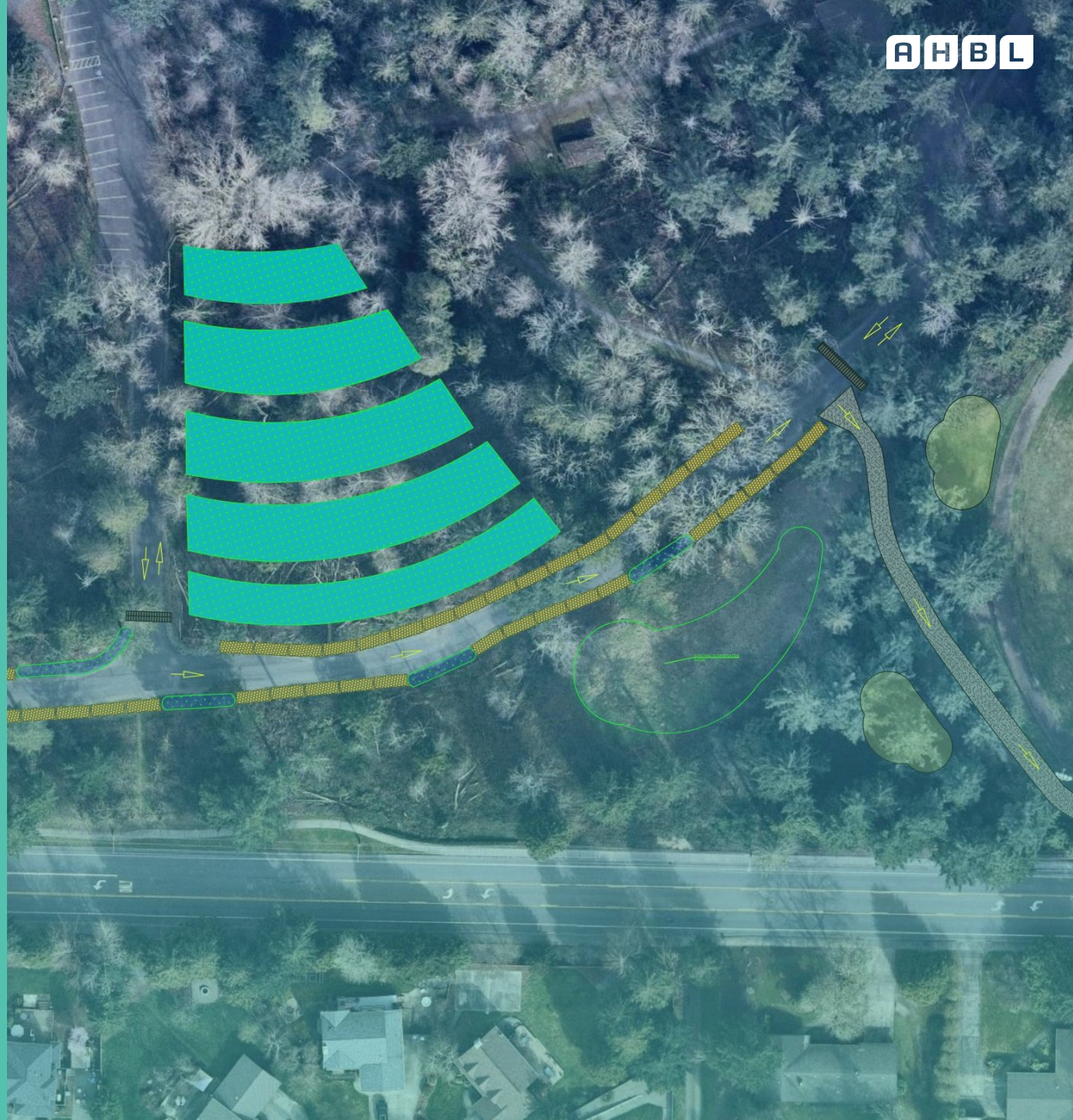
Technical Assistance

- Upstream Tributary Area = 118.9 acres
- Runoff Treatment Provided = 118 acres
- Stormwater Solution Provided = Biopods
- Park Design Provided = Interpretive signage, decorative bridge, plantings
- Additional Information = Existing park with an existing non-effective pond/biofiltration swale.

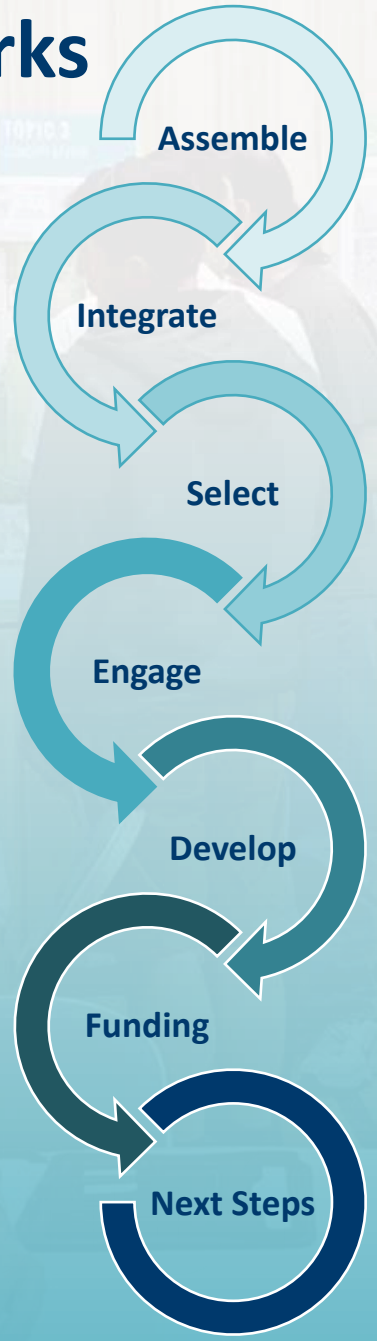
Puyallup

Technical Assistance

- Upstream Tributary Area = part of a 700-acre basin
- Runoff Treatment Provided = 13 acres
- Stormwater Solution Provided = Bioretention swales along drive and down hillside in steps
- Park Design Provided = Added 58 parking stalls and master planning for nature play areas.
- Additional Point of Interest = Existing park. System provides treatment swap area for roadway improvements to the west in addition to providing treatment for existing areas not being redeveloped.



Planning for Stormwater Parks



Assemble interdisciplinary project team

Integrate equity

Select site

Engage the community

Develop alternatives and designs

Funding sources

Next steps

Lessons Learned

- Bring stakeholders to kickoff meeting
- Confirm goals with stakeholders
- Confirm acceptable stormwater solutions from a long-term O&M perspective
- Allow float time in schedule to account for delays that may come up
- Confirm project meets the definition for the grant

132nd Square Park rendering

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Discussion Questions:

- What level of interest does your jurisdiction have in building a stormwater park?
- Beyond the information and guidance provided by this project, what else would be helpful in planning a stormwater park?

www.psrc.org/our-work/stormwater-parks