Name and location of watershed: Johnson Creek Watershed, Oregon

Size of watershed (in acres): 33280 acres, 52 square miles

Title of Project/Initiative: Johnson Creek Watershed Council 2015-2025 Action Plan (with various ongoing projects within the overall initiative)

Setting: (please check all that apply)
- Urban (towns, cities, and suburbs with 2,500 inhabitants or more)
- Rural (anything outside the urban area)
- Inland
- Coastal

Need/Challenge Addressed (200 word limit):
Current efforts to restore Johnson Creek focus on restoring its natural resource functions. This type of restoration provides flood storage, water quality benefits, and increases fish and wildlife habitat by returning some of the natural historic conditions and functions to the watershed.

Goals & Objectives (please include ecosystem services/values focused on):
- Build community amongst 180,000 people living within the watershed
- Open migration for fish/aquatic wildlife
- Lower stream temperature
- Water quality
- Habitat Conservation
- Information hub/information sharing

Overall Strategy (i.e., what role do wetlands play in your project?)
- Build community: through outreach, volunteer, environmental education, citizen science, etc.
- Open migration: removal of 18 highest priority fish passage barriers, enhance aquatic habitat and floodplains, fish spawning survey
- Cool stream temperatures: through riparian reforestation, in-line ponds, thermal refugia, preserve existing riparian forests
- Cleaner Water: map surface water connected areas and stormwater infrastructure at the watershed-scale, identify highest priority regions in the watershed, promote conservation district, toxic waste collection, encourage sewer hookups, construct demonstration projects
- Habitat conservation: Johnson Creek Acquisition Strategy, convene with landowners & stakeholders, advocate for local/regional land use planning and development backed by wetland science
- Information hub: provide clearinghouse for monitoring and data maps, improve restoration project tracking, engage schools and non-profits in monitoring, fill data gaps, report on watershed health every ten years, etc.
Techniques Used (please check all that apply):

- X Restoration (the manipulation of the physical, chemical, or biological characteristics of a site with the goal of returning natural/historic functions to former or degraded wetland.)
- X Creation (the manipulation of the physical, chemical, or biological characteristics present to develop a wetland that did not previously exist on an upland or deep-water site, resulting in a gain in wetland acres.)
- X Enhancement (the manipulation of the physical, chemical, or biological characteristics of a wetland (undisturbed or degraded) site to heighten, intensify, or improve specific function(s) or for a purpose such as water quality improvement, flood water retention or wildlife habitat.)
- X Protection (the removal of a threat to, or preventing decline of, wetland conditions by an action in or near a wetland. Includes purchase of land or easement, repairing water control structures or fences, or structural protection such as repairing a barrier island.)

Team Members:

- Team leaders (organizations, agencies or individuals that are responsible for overall project direction, outcomes and financing): Bureau of Environmental Services, Portland Oregon; Johnson Creek Watershed Council
- Partners (organizations, agencies or individuals that are responsible for implementation of the project by agreement or contract): Six local jurisdictions are located within the Johnson Creek watershed. These include: The cities of Portland, Gresham, Milwaukie, Happy Valley; Multnomah and Clackamas Counties
- Collaborators (organizations, agencies or individuals that are involved in an advisory role): Information not provided.

Stakeholders (organizations, agencies or individuals that are in some way impacted by the project):
Watershed residents, schools, businesses, environmental organizations, and state and federal resource and regulatory agencies.

Overview/history (200 word limit):

How many individual projects are currently being implemented or are planned to be implemented within this broader watershed initiative? Please describe.

- Johnson Creek-Cedar Crossing Restoration
- Errol Heights Street Improvement Project
- Luther Road Habitat Restoration Project
- Foster Floodplain Natural Area
- Crystal Springs Creek Restoration
- Errol Creek Confluence Project
- East Powell Butte Restoration Project
- Brookside Wetland Project
- Tideman Johnson Park Restoration Project
- Kelley Creek Confluence Project
- Willing Seller Program

Is there a track record of past, completed projects in this watershed? If yes, please describe and provide available information regarding performance/effectiveness.
Information about projects in the watershed and their effectiveness can be found at this link: Johnson Creek Restoration Projects Effectiveness Monitoring
Start and end dates (dates can overlap – estimates are acceptable):

- Planning: 2002-2015
- Implementation: 2002-2015
- Monitoring: 1997-2010

Cost – Financing (estimates are acceptable): Based on Johnson Creek Restoration Plan (2001)

- Planning: Information not provided.
- Implementation:
  - Acquire properties containing inundated structure: Property in Milwaukie Industrial District = $1,000,000 per acre. Property in jurisdiction of the cities of Portland and Gresham = $145,000 per acre Property in jurisdiction east of Gresham = $45,000 per acre
  - Design and build constructed wetland: Property acquisition as described above $10 per cubic yard of material removed $30,000 an acre for wetland grading and vegetation
  - Design enhanced wetland: $25,000 an acre for wetland grading and vegetation
  - Implement stream bank stabilization and floodplain reconnection: $10 per cubic yard of material removed $10,000 per acre for general riparian planting
  - Protect Johnson Creek tributaries: $10,000 per acre for general riparian planting
  - Remove fish barriers (culverts): $40,000 per culvert modification
  - Increase in-stream complexity: $100 per linear foot of creek channel
  - Mitigate impervious surface: $20,000 per acre of impervious surface
  - Educate property owners adjacent and near Johnson Creek: $15,000 per property
  - Protect and restore wildlife corridors: $10,000 per acre for general riparian planting
  - Protect and restore riparian vegetation: $10,000 per acre for general riparian planting
  - Acquire conservation easements: $0.27 per square foot, applied to 10% of property size of properties identified as possible work with along Johnson Creek
- Monitoring: Information not provided.

Continual (are there ongoing maintenance costs that will be required?): Information not provided.

Resulting benefits (please list what was measured and how):

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<tr>
<th>Flood Control</th>
<th>Water Quality</th>
<th>Discharge</th>
<th>Hydrological Conditions</th>
<th>Wetland Restoration</th>
<th>Biodiversity/ Productivity</th>
<th>Listed Species</th>
<th>Economically Important Species</th>
<th>Pub. Access, Rec. Awareness</th>
<th>Other Economic Benefits</th>
<th>Other</th>
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<tbody>
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Environmental benefits (e.g. water quality improvements, habitat protection or improvement, reduced phosphorus and nitrogen loads, etc.): Information not provided.

Financial or Economic Impact Benefits (e.g., avoided damage costs, increase in commercial fish revenue, increase in tourism revenue, etc.): Information not provided.

Non-Market Economic Benefits (may be monetized - e.g., increased value of recreation or aesthetics or other improvements using dollar values; or non-monetized descriptions of benefits – e.g., number of people who may benefit from improved recreation or aesthetics or other resulting improvements): Information not provided.
Other: Information not provided.

Are benefits based on actual measures or did you use a model to predict benefits? Information not provided.

Is there a cost-benefit analysis available? Yes or No (If yes, include a copy with your response): Information not provided.

If you do not have any data currently available in regard to benefits, how do you plan to measure them? Information not provided.

Where there any innovative designs/technologies/policy changes created to enable the project or that resulted from the project? (If so, please describe): Information not provided.

1995 – Oregon House Bill 3441 passed, providing guidance for forming watershed councils as locally organized, voluntary, non-regulatory groups
1997 – The Oregon Plan for Watersheds and Salmon placed into statute by the Oregon State Legislature.

Lessons Learned: Information not provided.

Do you have any images or photos to share?

[Johnson Creek watershed map]

Johnson Creek watershed map
Johnson Creek Pedestrian Bridge

Restored Johnson Creek Bank in East Lents
FMI (please include contact name, organization, website, phone number and/or email address):

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