

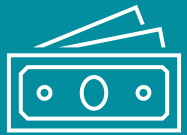


WATER RESOURCES

Co-Benefits



Improves watershed management and conservation to support aquatic and riparian habitat and encourage regenerative agricultural practices resulting in healthier ecosystems, cleaner water, and greater food security.



Protects SVRP Aquifer capacity while stabilizing utility costs through water conservation interventions. Ensures Spokane remains a premier destination for conventions and tourism.



Ensures Spokane River is healthy, clean, swimmable and fishable, and SVRP Aquifer remains a sustainable, potable water source.



Advances watershed education within all communities and protects fish resources as a cultural food source.

SDG Alignment





Our River & Aquifer

The Spokane River is the central feature of Spokane's natural environment. The lifeways of Spokane's original inhabitants revolved around the river: it was their main source of sustenance and their cultural touchstone. When European settlers arrived, they chose the site along the Spokane River to access all the benefits that a major river provides. The Spokane River is a critical component of the City's heritage.

Spokane's natural environment has been greatly impacted by water, from historic floods to the more frequently occurring summer droughts. While our climate is defined by relatively low annual precipitation, our region abounds with lakes, wetlands, streams and our beautiful Spokane River.



The Spokane Valley-Rathdrum Prairie Aquifer flows beneath our feet throughout a large section of our area and is an Environmental Protection Agency designated 'sole source aquifer', signifying that our drinking water is almost entirely supplied by this gift of groundwater. As more people move to this region, we must project how increased water consumption will both impact the aquifer and the Spokane River, which are physically connected and feed water to one another.

To protect our aquifer and the Spokane River, the City must creatively manage wastewater and stormwater runoff that our growing urban area creates. Direct interventions are in place to increase pollutant removal from wastewater through tertiary treatment before it is discharged into the Spokane River. Our City has also made smart investments to redirect urban stormwater to holding tanks where it is 'metered' in and combined and treated with municipal wastewater. Innovative solutions are rolling out to increase on-site stormwater treatment projects like storm gardens and bioswales. Natural and managed water resources do not exist independently of one another. We all live within a watershed, and every one of our activities directly or indirectly affects the health and quality of our shared water. The interconnections of our water, both seen and unseen, are complex.

Because the aquifer is a regional treasure with a carrying capacity, ensuring its conservation and recharge is critical. The City of Spokane is committed to working collaboratively with our regional partners to ensure it remains abundant and unpolluted for future generations.



WATER RESOURCES

Water Resources include natural and managed water systems that humans and other living things rely on to survive. Natural water systems encompass surface water (i.e., Spokane River and its tributaries, wetlands, lakes, and seasonal streams) and groundwater (i.e., the aquifer). City-managed water resource processes include operating Upriver Dam, pumping and delivering drinking water, as well as wastewater/stormwater treatment and discharge.

The City of Spokane envisions a healthy water future for our area. Our region abounds with plentiful lakes, streams and the beautiful Spokane River.



Sector Level GHG Targets: Water Resources

Emissions from Pumping	2016 Baseline		2030 Reduction Target 45% & 948,958 MT		2040 Reduction Target 70% & 1,476,155 MT		2050 Reduction Target 95% & 2,003,356 MT	
	Accounted for in B&E Sector	Metric Tons CO ₂ e	Percent of Total	Metric Tons CO ₂ e	Percent Reduction	Metric Tons CO ₂ e	Percent Reduction	Metric Tons CO ₂ e
Electricity	6,846	>1%	1,369	80%	685	90%	0	100%
Gas	209	>1%	209	0%	209	0%	10	95%

Comprehensive Plan Alignment

Chapter 3: Land Use

- LU 1: Citywide Land Use
- LU 3: Efficient Land Use
- LU 8: Urban Growth Area
- LU 9: Annexation Boundaries

Chapter 5: Capital Facilities and Utilities

- CFU 1: Adequate Public Facilities and Services
- CFU 3: Coordination
- CFU 5: Environmental Concerns

Chapter 7: Economic Development

- ED 6: Infrastructure
- ED 8: Quality of Life & the Environment

Chapter 9: Natural Environment

- NE 1: Water Quality
- NE 2: Sustainable Water Quality
- NE 3: Shorelines
- NE 4: Surface Water
- NE 6: Native Species
- NE 7: Natural Land Forms
- NE 8: Agricultural Lands
- NE 15: Natural Aesthetics
- NE 16: Quality of Life
- NE 17: Natural Environment Education
- NE 18: Energy Conservation
- NE 19: Flood Hazards Management

Chapter 10: Social Health

- SH 8: Food Access & Security

Chapter 14: Shorelines

- ▶ Action in-progress
- ▶ Action complete

WATER RESOURCES

GOAL 1. Protect the Spokane River and natural aquatic ecosystems (wetlands, shorelines, aquatic ecosystems biodiversity, streams, floodplains, aquifer recharge areas)

Strategy 1. Protect water quality, fish, wildlife, ecosystem function, and no-impact recreational opportunities in the Spokane River through responsible, long-term watershed planning and management

Priority Actions

WR 1.1	Maintain minimum instream flow rule for the Spokane River through water conservation and drought action planning and policy
WR 1.2	Determine feasibility for banking City senior water rights and other water rights in a trust to ensure future base River flows
WR 1.3	Identify, reduce, and mitigate impacts to the Spokane River that are a direct result of regional pumping of the Spokane Valley Rathdrum Prairie (SVRP) Aquifer
WR 1.4	Protect aquatic ecosystem biodiversity, native species, and their habitats
WR 1.5	Pursue options for adding the Spokane River Gorge to Natural Area status

Strategy 2. Build climate resilience in natural water systems through responsible watershed planning

Priority Actions

WR 2.1	Protect the following sensitive resources through acquisition, maintenance, and restoration strategies: wetlands, riparian areas, and spawning and rearing habitats of native fish species
WR 2.2	Prioritize preventing ecologically-damaging actions during development permitting process over post-development mitigation strategies, including restoration or habitat creation
WR 2.3	Maintain healthy buffers and assume lead role in restoring damaged riparian areas to prevent erosion and re-establish water-protecting ecological services
WR 2.4	Partner with regional agencies and organizations to develop a flood risk assessment to responsibly manage areas projected to experience increased flooding events resulting from climate change
WR 2.5	Enforce protection of wetlands, including exploring wetland restoration/creation options, updating wetland delineation maps, and enforcing wetland buffer requirements

WATER RESOURCES

Strategy 3. Actively manage pollution within Spokane River and SRVP Aquifer

Priority Actions	
WR 3.1	Commit to following regulations and guidelines of the Clean Water Act (CWA) to reduce pollutants entering the Spokane River
WR 3.2	Work with regional partners to implement policies and strategies that support the Spokane Tribe's pollution standards for PCBs in the Spokane River
▶ WR 3.3	Continue to support river clean-up efforts by Spokane Code Enforcement, The Spokane Riverkeeper, The Lands Council, Spokane River Forum, and other community-based organizations
▶ WR 3.4	Continue to support Department of Ecology efforts to reduce toxic pollution in the Spokane River
WR 3.5	Access Spokane County SVRP Aquifer water quality data to identify well locations where contaminant levels are rising and address potential sources of pollution

Strategy 4. Support the protection, restoration, and reintroduction of native fish species and their habitats in the Spokane River Watershed

Priority Actions	
WR 4.1	Support the development and operation of a Lead Entity for the Spokane River Watershed to guide restoration of native Redband Trout and anadromous fish habitats through a collaborative framework that functions in concert with local socio-economic and cultural needs
WR 4.2	Support a Lead Entity Coordinator in their development of a Technical Advisory Group and Citizens Committee, inclusive of tribes, county and city governments, state agencies, conservation districts, business and industry, non-government organizations and citizens
WR 4.3	Support a Lead Entity to identify native priority fish species based on their historical distribution, population status, and value to indigenous communities and culture
WR 4.4	Support the identification of habitat limiting factors that may be impacting native fish species
WR 4.5	Support the development and implementation of a habitat restoration strategy that identifies habitat improvement projects addressing previously identified limiting factors



City Council Resolution 2014-0070 : BE IT RESOLVED that the Spokane City Council expresses support for the NPCC's program's inclusion of anadromous fish passage above Grand Coulee Dam, and other regional processes that may result in anadromous fish reintroduction into their historical habitats that lie within the City of Spokane and throughout the Upper Columbia Region

Photo Credit: Inland Northwest Land Conservancy
Spokane Tribal Fisheries department releasing 50 Chinook Salmon into the Little Spokane River at Waikiki Springs, August 6th 2021

WATER RESOURCES

Strategy 5. Improve stormwater and wastewater management

Priority Actions

WR 5.1	Continue to invest in stormwater management strategies and wastewater treatment upgrades and innovations to reduce pollutants entering Spokane River and the SVRP Aquifer
WR 5.2	Prioritize low impact development (LID) practices in City projects, including reducing impervious surface expansion
WR 5.3	Develop policy that requires clear, achievable on-site stormwater management for new developments
WR 5.4	Build community awareness around our wastewater system; use artwork and signage
WR 5.5	Collaborate with regional partners to ensure permitted dischargers meet Department of Ecology clean water requirements



qeʔqs čštím łuʔ qeʔ čyaʔtín. Salish for let us care for our resources. čyaʔtín refers to the things we hold dear to us, precious resources. čštím is the act of caring for something.

WATER RESOURCES

GOAL 2. Ensure sustainable water supply

Strategy 6. Work with regional partners to reduce pumping from the Spokane Valley Rathdrum Prairie (SVRP) Aquifer in the face of projected population growth and future climate

Priority Actions

WR 6.1	Fund and conduct a regional aquifer study to determine future impacts to water availability including impacts from climate change and projected growth aquifer-wide and identify opportunities for regional collaborative solutions by 2023
▶ WR 6.2	Adopt updated water conservation target by April 2022 of 25% reduction in annual pumping (based on 2015-2019 average) over the next ten years
▶ WR 6.3	Adopt drought response plan that is tied to real-time Spokane River instream flows and hydrological health by April 2022 to prioritize maintaining water capacity during critical summer season
▶ WR 6.4	Ensure the City's Water Conservation Master Plan is reviewed every five years and updated as needed
▶ WR 6.5	Prioritize water conservation strategies that address critical importance of lowering summer, outdoor water use through efficient irrigation and landscape standards
WR 6.6	Adopt tiered water rate adjustments to incentivize water conservation for high water users
▶ WR 6.7	Continue to invest in and prioritize water conservation in City Parks, golf courses, and other City-owned property
WR 6.8	Explore the possibility of reusing or recycling wastewater from Riverside Park Water Reclamation Facility to irrigate municipal green spaces such as parks, golf courses, medians, fire stations, etc
▶ WR 6.9	Expand commercial water efficiency program and continue to offer water conservation support for larger water users as well as new and existing commercial water accounts
▶ WR 6.10	Expand current efforts that support education and outreach aimed at assisting residents in decreasing water use through conservation and efficiency strategies

Strategy 7. Create clear process and policies for assessing and approving land use and development that will impact future aquifer pumping volumes

Priority Actions

WR 7.1	Develop an annual water supply and water quality report card (by 2023) and establish strategies for addressing results (by 2025)
WR 7.2	Examine the policy and process for new intertie agreements to ensure those actions meet defined criteria for protecting base river flows and do not encourage exporting water outside of the Spokane Basin; include conditional, legal agreements for some cases (by 2023)
▶ WR 7.3	Review City's practice of approving water retail amendment process to ensure compliance with both state law and the City's Comprehensive Plan
WR 7.4	Review and update as necessary the City's water retail amendment process to prevent loss of critical wildlife habitat areas, wetlands, working farms, and prime agricultural lands (same as TL 9.4)

WATER RESOURCES

GOAL 3. Educate & engage community in water resources stewardship

Strategy 8. Promote opportunities to engage the community

Priority Actions

WR 8.1	Support the development of a 'Water Conservation Ambassador' Program to train citizen volunteers to take City messaging around water conservation targets and drought actions to larger community
▶ WR 8.2	Continue to support programs that engage community in watershed understanding, river-aquifer relationship, and sustainability planning
▶ WR 8.3	Expand City program that recognizes individuals and businesses who contribute to protecting water resources (low water users, turf conversion, innovative design)
WR 8.4	Provide civic engagement opportunities for K-12, college, and university students, as well as established community youth programs around watershed programming and planning

Strategy 9. Promote and fund City programs that align with the [Water Conservation Master Plan](#)

Priority Actions

WR 9.1	Increase visibility and understanding through City website, City social media, and signage of projects that demonstrate City leading by example on water conservation
WR 9.2	Create more opportunities for community input in decision-making during all stages: before, during, and after both planning & implementation
WR 9.3	Create physical signage and online resources that educate the public on the SVRP Aquifer and our watersheds including the interaction between the river and the aquifer (City includes four watersheds: Middle Spokane, Lower Spokane, Little Spokane River, Hangman Creek)
WR 9.4	Create plaza designs with natural elements that include signs to educate the community around water conservation to support the health of our river



WATER RESOURCES

GOAL 4. Establish partnerships with regional organizations and agencies to leverage funding and invite community input

Strategy 10. Partner with regional groups to provide City input for Spokane River Watershed/SVRP Aquifer management plans and projects

Priority Actions

▶ WR 10.1	Create a Spokane River Vision Plan with regional partners, including jurisdictions, tribes, universities, colleges, nonprofits, and businesses throughout the SVRP aquifer area
▶ WR 10.2	Continue participation in the Idaho Washington Aquifer Collaborative (IWAC)
▶ WR 10.3	Continue participation in Spokane Aquifer Joint Board
WR 10.4	Support organization and agency management plans and programs that address watershed level sustainability strategies
WR 10.5	Collaborate regionally to develop disaster response plan for shared water resources like the SVRP aquifer and Spokane River
WR 10.6	Hire an employee to act as a Tribal liaison to improve collaboration with Tribes within the Spokane River watershed

Strategy 11. Identify opportunities to acquire and restore critical areas, natural areas, and connect riparian corridors for protection and conservation

Priority Actions

WR 11.1	Seek partnerships with agencies and organizations to purchase and protect critical shoreline areas that will maintain existing riparian corridors and/or connect undeveloped regional land to water resources for wildlife benefit
WR 11.2	Develop partnership with Washington Department of Ecology, Spokane County Conservation District, the Spokane Tribe of Indians, the Coeur d'Alene Tribe, and non-governmental organizations to restore shorelines of the Spokane River and its tributaries
WR 11.3	Partner with regional colleges and universities to grow opportunities for data collection and analysis that inform strategic land acquisition and restoration strategies



“Plans to protect air and water, wilderness and wildlife, are in fact plans to protect man.”

— Stewart L. Udall, Secretary of the Interior
from 1961 to 1969

Existing Watershed Initiatives

There are many organizations at both the regional and state level working on protecting our waterways and aquifer.¹³

Watershed:

- Greater Spokane River Regional Conservation Partnership Program (RCPP)
- Spokane County Voluntary Stewardship Program
- WRIA 54 (Lower Spokane Watershed) Watershed Plan (2009)
- WRIA 55 (Little Spokane) and 57 (Middle Spokane) Watershed Plan (2005)
- WRIA 56 (Hangman) Watershed Plan (2005)
- WRIA 55 (Little Spokane Watershed Planning) Spokane County Watershed updates: link (Hirst decision on permit exempt wells)

Rivers & Streams:

- City of Spokane Shoreline Master Plan
- Family Forest Fish Passage Program
- Spokane Regional Toxics Taskforce Comprehensive Plan to Reduce PCBs in the Spokane River
- The Great Spokane River Gorge Strategic Master Plan
- Upper Columbia United Tribes and Spokane Tribe Department of Natural Resources Anadromous Fish Recovery
- Spokane Tribe of Indians – Anadromous Fish Recovery Program

Spokane-Valley Rathdrum Prairie Aquifer:

- SVRP Aquifer Atlas
- Water Offset Projects--Managed Aquifer Recharge 2020 Field Report:
- Idaho Washington Aquifer Collaboration (IWAC) Efficient Irrigation and Landscape Design Handbook
- Cleaner Water Faster signage campaign (Centennial Trail) IWA
- Spokane Valley-Rathdrum Prairie bi-state aquifer study