



## Strategic Plan Advisory Committee

### DISCUSSION GUIDE: Current Conditions and Accomplishments to Date

July 22, 2020

#### Introduction

The Working Groups and the consultants have been compiling data on current conditions in the basin. Below are highlights from the sections on current conditions and accomplishments to date. We want to see if SPAC members agree with our preliminary conclusions, have additional questions or content to add to the development of current conditions, or have guidance on how to prioritize current problems and challenges that need to be highlighted in the Strategic Plan.

#### Water Quantity

##### 1. Groundwater

- **Shallow alluvial aquifer** is locally connected to rivers and creeks. Throughout basin, water levels are declining about 0.25-0.50 feet per year and less cool water is discharging to rivers and creeks. Groundwater levels rise locally near some managed aquifer recharge (MAR) sites.
- **Deep basalt aquifer.** The basalt aquifer partially supplies the North Fork/South Fork headwaters. Basin-wide basalt aquifer water levels decline about 1-4 feet per year (potential concern for headwaters). Locally, declining water levels limit water supply for irrigators and increase irrigator pumping operation costs.

##### 2. Surface water

- **Peak flows.** Increased precipitation and a warming climate lead to larger volumes of runoff/flooding. Variation in intensity of climate events is more difficult to manage.
- **Ecological flows.** The majority of reaches on the Walla Walla River, Touchet River, and Mill Creek have low flow prescriptions to meet the needs of fish.
- From June through September (based on 2017 data):
  - **Walla Walla River Mainstem.** About 60% of the river's total water budget (total flow in/out of river) is diverted for irrigation. The remaining budget relates to tributary inflow and channel gains/losses.
  - **Little Walla Walla River (LWWR)/Spring Branches Area.** *Data collection and synthesis in progress.*
  - **Touchet River.** About 55% of the river's total water budget (total flow in/out of river) is diverted to irrigation. The remaining budget relates to tributary inflow and channel gains/losses.

- **Mill Creek/Yellowhawk Creek.** About 71% of the river's total water budget (total flow in/out of river) is diverted to irrigation, municipal use, Bennington Lake storage, and/or Yellowhawk Creek. The remaining budget relates to tributary inflow and channel gains/losses.

**Discussion Questions:**

- Do you agree with the summary of the current conditions? If not, what is incorrect or missing?
- What are the top priority concerns that need to be highlighted in the strategic plan?
- What additional questions or information would you want the Working Groups to address?

**Water Quality Concerns**

The table summarizes water quality issues in the basin.

Water Body	Temp	Fecal Coliform	pH	Dissolved O <sub>2</sub>
E. Little Walla Walla River	✓			
Mill Creek	✓	✓	✓	✓
Touchet River	✓	✓	✓	✓
Touchet River, NF (EF)	✓	✓		✓
Touchet River, SF	✓	✓		
Walla Walla River	✓	✓	✓	✓
West Little Walla Walla River	✓			

In addition, the Walla Walla River has TMDL's related to 4,4' – DDT; 4,4' – DDE; chlordane; dieldrin; heptachlor epoxide; hexachloro-benzene. PCBs are ubiquitous in the watershed and have a ripple effect. For example, the cost of monitoring PCBs is so burdensome, the Walla Walla Basin Watershed Council has halted MAR site operations and development on the Washington side of the basin.

**Discussion Questions:**

- Do you agree with the summary of the current conditions? If not, what is incorrect or missing?
- What are the top priority concerns that need to be highlighted in the strategic plan?
- What additional questions or information would you want the Working Groups to address?
- Are there specific PCB questions or concerns the SPAC would like addressed by the Working Groups and/or within the strategic plan?

**Fish and Wildlife**

1. ESA listed species
  - Bull trout - threatened
  - Middle Columbia River Steelhead - threatened
2. Critical fish and wildlife species
  - Spring Chinook
  - Redband Trout
  - Pacific Lamprey

- Western Brook Lamprey
- Freshwater mussels

***Discussion Questions:***

- Should any species be added to or removed from this list?
- What additional questions or information would you want the Working Groups to address?
- What are the top priority concerns that need to be highlighted in the strategic plan?
- Should these species be addressed? If so, how?
  - a. Reptiles/amphibians?
  - b. Birds?
  - c. Mammals?

**Habitat**

**1. Upper Mainstem Walla Walla**

- Limiting factors: decreased baseflow, reduced habitat diversity, channel stability, Passage obstructions, elevated sediment load, and high temperatures.
- Development in floodplain threatens floodplain / riparian function.

**2. Little Walla Walla River (LWWR)/Spring Branches Area**

- Limiting factors: low flow and invasive species (e.g., reed canary grass and jewel weed) restrict flow in the stream channel. Unscreened diversions present hazards for fish on both the WA and OR sides of the creek.
- Restoration priorities: flow augmentation to improve habitat for fisheries (if accompanied by fish screening), preserve riparian vegetation and provide flow for exercising water rights in the “springs” portion of the watershed.

**3. Lower Walla Walla River (downstream from Dry Creek)**

- Limiting factors: low flow, lack of instream habitat diversity, poor riparian function, elevated stream temperatures, and elevated sediment loads. Channel straightening reduces stream channel complexity and floodplain function.

**4. South and North Forks of Walla Walla River**

- Limiting factors: lack of instream habitat diversity and poor riparian/floodplain habitat in some reaches, channel stability, flow, sedimentation, and elevated temperature.

**5. Touchet River - Mainstem**

- Limiting factors: sedimentation, habitat diversity, flow, channel stability, and temperature. Development and agricultural practices threaten floodplain / riparian function in some reaches.

**6. Touchet River - Headwaters**

- Limiting factors: channel stability, reduced habitat diversity, key habitat, and sediment load. Development encroaching on floodplain threatens floodplain / riparian function in some reaches.

## 7. Mill Creek Headwaters

- Limiting factors: reduced habitat diversity, key habitat, and obstructions. Development encroaching on floodplain threatens floodplain / riparian function in some reaches.

## 8. Lower Mill Creek

- Limiting factors: fish passage obstructions, sediment load, habitat diversity, flow, temperature, and key habitat quantity.

## 9. Yellowhawk Creek

- Limiting factors: development in floodplain, several partial fish passage barriers exist, physical shape of channel, and scouring.

### **Discussion Questions:**

- Do you agree with the summary of the current conditions? If not, what is incorrect or missing?
- What are the top priority concerns that need to be highlighted in the strategic plan?
- What additional questions or information would you want the Working Groups to address?

## Out of Stream Uses

The table below summarizes water use by state and sector. Note – total annual use values for agriculture will change based on data provided by WSU (request in process). Percentages will change based on updated ag numbers and commercial/industrial inputs.

	Oregon		Washington	
	Total Annual Water Use (acre-feet)	% of Total	Total Annual Water Use (acre-feet)	% of Total
Agriculture	63,000	96%	120,000	88%
Municipal	2,100	3%	15,000	11%
Commercial / Industrial	<i>In progress</i>	<i>In progress</i>	<i>In progress</i>	<i>In progress</i>
Rural / Domestic	600	0.9%	2,000	1.5%
<b>Total</b>	<b>65,700</b>		<b>137,000</b>	

The table below summarizes **municipal water use** for 2016-2019 and was provided by municipalities, except for WA Group A & B, Dayton, and Prescott, which were estimated based on averages. Spokane and Richland are provided for comparison only.

Municipality	Average daily water use (gallons per capita)	Total annual water use (acre-feet)
Walla Walla	250	9,728
Milton-Freewater	236	1,931
WA Group A & B	191	1,718
Waitsburg	149	1,645
College Place	141	1,250
Dayton	191	586
Weston	179	138
Prescott	191	75
Spokane	217	

Municipality	Average daily water use (gallons per capita)	Total annual water use (acre-feet)
West Richland	197	

*Rural-Domestic Water Use*

Rural-domestic water users are mandated to comply with the Instream Flow Rule if: (1) wells draw from the shallow gravel aquifer; (2) wells are in an area zoned for land parcels of 10 acres or less (high-density area). Requirements include daily use limits; mandates for mitigation (for 1,000 gpd for outdoor water use from exempt wells, from May to November); new water right for instream flows; seasonal closures of all surface waters and the gravel aquifer between June 1st and November 30th.

***Discussion Questions:***

- Do you agree with the summary of the current conditions? If not, what is incorrect or missing?
- What are the top priority concerns that need to be highlighted in the strategic plan?
- What additional questions or information would you want the Working Groups to address?

**Recreation, tourism, and quality of life**

***Discussion Questions:***

- What key conditions would SPAC like addressed in this section?

**Accomplishments to date**

A preliminary list of accomplishments to date is attached on page 6.

***Discussion Questions:***

- Should additional entities be added to the list?
- Do SPAC members have any additional input or guidance on the list of accomplishments?

## PRELIMINARY ACCOMPLISHMENTS LIST

- ▶ [Walla Walla Watershed Management Partnership \(cited in their 2018 report to legislature\) \[1\]](#).
  - **Education:** Provides a forum for open public discussion. Facilitates communication between different interests in the Basin whose work is often siloed in different community sectors. Hosted public “Water Rights 101” forums in 2016 and 2017 in three towns in the Walla Walla Valley. Introduced people to the complexity of water rights and water management.
  - **Local Water Plans:** “Flow from Flexibility” program invites water rights holders to develop water management plans that enhance stream flows in exchange for greater flexibility in exercising their water rights. The Partnership has approved seven Local Water Plans, with three partially implemented, one not yet implemented, and three expired/inactive (as of 2018).
  - **Water Banking:** Partnership’s most popular program (in number of participants and in partner satisfaction). Provides options to water rights holders to voluntarily deposit water rights while protecting themselves from relinquishment.
  - **Water Transactions:** The Partnership acquires water through purchases and leases (transferred to the State Trust Program) to reduce the impact of over-appropriation on vulnerable fish populations. As of 2018, the Partnership had one lease pending with Gardena Farms Irrigation District (GFID); the previous lease expired in 2017 and leased an average of 2004.8 acre-feet per year. The Partnership also had a lease with Probert Family Ranches that expired in 2015 and leased an average of 1196.2 acre-feet per year. As of 2018, the Partnership was working on three future leases, two on the Touchet River, and one on a tributary to the Little Walla Walla River.
  - **Agreements not to Divert (ANTD):** ANTDs help the Walla Walla Basin deal with critical low-flow periods and extend the conservation of water downstream. These agreements are made with more junior rights, agreeing to leave them instream upon the Partnership’s request; all water involved in ANTDs is placed in the Water Bank. Two ANTDs were secured in 2015, though neither have been activated (as of 2018).
  - **Critical Low-Flow Plan (CLFP):** The CLFP is a framework to bring the community together to help in times of drought crisis. CLFPs are voluntarily established and provide irrigators with a guide to provide effective drought assistance. Option contracts offer a payment to water rights holders to bypass water, reduce surface diversions near passage barriers, or rely on basalt wells rather than surface or shallow aquifer rights. Ideally made with senior water-rights that irrigate reliably in the spring and fall. Two option contracts are in place but have not been called on (as of 2018).
  - **Exempt Well Mitigation Exchange:** The Partnership facilitates an Exempt Well Mitigation Program, providing mitigation credits for sale to new permit-exempt well holders that require mitigation under the Walla Walla Instream Rule. The program generates credits by purchasing existing water rights and transferring them to the State Trust Water Right program. The Exchange contains 24.84 acre-feet of water and sold 2.75 as credits to five homes; the remaining balance in the bank is capable of supplying credits to 45 additional houses (as of 2018).
- ▶ [Walla Walla County Conservation District](#)
  - **Conservation Reserve Enhancement Program (CREP)**<sup>1</sup>: started in 1999, CREP provides tools to improve degraded riparian buffer zones along streams in Walla Walla County (only working lands outside of the incorporated areas of the county are eligible).

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<sup>1</sup> Conservation Reserve Enhancement Program (CREP) 2-pager; Walla Walla County Conservation District.

Reduces soil erosion and pollution to streams, provides habitat for wildlife and fish, and provides protection for farmers and ranchers from regulatory action. Accomplishments as of 2019 include: Just under 1.5 million native trees & shrubs planted in addition to grass stands. Over 190 contracts on ~3600 acres. Buffer widths range from 50 to 180 feet. 196.9 miles of stream bank protected with buffers.

- **Creating Urban Riparian Buffers Program (CURB)<sup>2</sup>**: started in 2006, Walla Walla County Conservation District’s CURB program provides educational outreach on restoring riparian zones in urban areas (e.g., community workshops, public presentations and booths, informational mailings, and project tours) to urban residents. Accomplishments as of 2020 include: 41 Urban Riparian Buffers installed; 11,928 feet of stream bank cover restored; over 7,200 trees, shrubs & perennials planted.
- **Fish Screens & Flow Meters Program<sup>3</sup>**: In 2001, area irrigators, the Walla Walla County Conservation District (WWCD), the Washington Department of Fish and Wildlife, the Snake River Salmon Recovery Board, and the Washington Dept. of Ecology developed a program to help cover the cost of upgrading to National Marine Fisheries approved fish screens. Along with the fish screens, irrigators were provided with modern water meters to help them use their water more efficiently. Accomplishments as of 2019 include: 377 fish screens installed in Walla Walla County; 529 flow meters installed on surface diversions and wells in Walla Walla County; and 67 data loggers installed with flow meters.

▶ **Walla Walla Basin Bi-State Flow Study (2017 & 2019) [2]**

The 2017 Walla Walla Basin Integrated Flow Enhancement Study documented geographical context, objectives, stakeholders, and evaluation of over 100 water supply projects. The 2019 update documents the current status of the flow study (completed in 2019), building upon stakeholder work in the 2017 report. The 2019 update includes new evaluations of storage and pump exchange options, fisheries information, and basin environmental data.

The objective of these studies is *“to improve streamflows in the Walla Walla River mainstem to support harvestable populations of native fish species, while maintaining long-term viability of agricultural, municipal, commercial, and residential water uses.”* The Flow Study Steering Committee approved Walla Walla mainstem streamflow targets of 150 cfs from April 1-June 15; 100 cfs from June 16-June 30; and 65 cfs from July 1-November 30.

▶ **Accomplishments from the following entities will be added as data is received:**

- Confederated Tribes of the Umatilla Indian Reservation
- Snake River Salmon Recovery Board
- Walla Walla Basin Watershed Council
- Blue Mountain Land Trust
- Kooskooskie Commons
- Tri-State Steelheaders
- Columbia County Conservation District

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<sup>2</sup> Creating Urban Riparian Buffers (CURB) 2-pager; Walla Walla County Conservation District.

<sup>3</sup> Fish Screens & Flow Meters – Reducing ESA-listed Salmon Mortality. Walla Walla County Conservation District.