

June 13, 2016

Response to TAG Panel Comments
The San Juan Preservation Trust
Lower Zylstra Lake Acquisition

TAG Comments

If this lake was restored back to a large wetland, would the water storage capacity be reduced or increased?

This is an acquisition only proposal to acquire the land and water rights. Acquisition of land and water rights is the first critical step in salmon restoration in the False Bay watershed. Answers to questions regarding proposed future restoration actions are based on our knowledge to-date. Once land and water rights have been secured, additional planning for restoration will occur.

A channelized creek flowed through the area before the lake was created (see historic 1960 photos attached in PRISM). The lake was created by digging a deep hole, spoiling the topsoil and subsoils on the pasture, and building a dam. Extensive wetlands never existed in the area now occupied by the lake. If the dam were to be removed, a large hole would remain, there would be no summer flow, and water storage capacity would be reduced. Attempting to create extensive wetlands where they never existed through extensive earthmoving of compromised soils (loaded with weed seed) would be a problematic and extremely expensive proposition.

Today, instream flow in the False Bay watershed is less than historic flow as a result of hydrologic alterations beginning with settlers draining and ditching fertile farmland in San Juan Valley followed by damming Trout Lake in the upper watershed for use as the Town of Friday Harbor municipal water supply. In addition, numerous ponds have been constructed to retain water off-stream. All of these out of stream water uses are expected to continue in the False Bay watershed into the foreseeable future. At this point, creating one wetland, even a large one, in the watershed may not create enough storage capacity in the system to provide consistent instream flow to False Bay Creek.

The False Bay watershed, located in the rainshadow of the Olympic Mountains and Vancouver Island, receives a scant 24 inches of precipitation annually. Average rainfall in the San Juans is more similar to Eastern Washington than to the Puget Sound region with no snow pack reserves to draw upon. The large majority of this precipitation falls in the form of rain during the months of October through April. In the San Juan Islands, the seasonality of precipitation - combined with the small size of the watershed (approximately 11,700 acres) - produces a water table that varies dramatically throughout the year. To ensure year-round stream flow, it is necessary to capture water in the wet season for release in the dry season.

In as much as the water table dives deep into the ground in the San Juan Valley in the summer, there is a "no flow season" mid-summer to late fall with no year-round wetlands present in this area. Given these constraints and absent water impoundment, sufficient water does not exist in the False Bay watershed for year-round instream flow to be maintained.

What progress is being made to acquire the Upper Lake?

To fund the purchase of Upper Zylstra Lake, the San Juan Preservation Trust, in partnership with the San Juan County Land Bank, has applied for two acquisition grants from 1) the National Coastal Wetlands Conservation Program; and 2) the Washington Wildlife Recreation Program (Water Access). These grant applications are in process, with preliminary decisions expected later this year. In the event sufficient funds are not secured through these grants, private funding will be sought. The Deal Structure and timeline for the acquisition of the entire Zylstra Lake property is attached in PRISM.

Can we get a letter of support from UW Friday Harbor Labs?

The University of Washington has provided a letter of partnership for the Zylstra Lake Project (attached in PRISM). The letter highlights the strong support from the Friday Harbor Labs for this acquisition and also notes their interest in ongoing and future educational and research opportunities.

Clarify what the water rights are. Explain more fully what senior water rights include. Clarify whether there is enough water available to meet the instream flow needs.

The Zylstra Lake property comes with senior reservoir water rights to impound 285 acre feet of water per year. The surface water rights have been perfected and have been in use for many decades. The Zylstra water rights are also senior to, i.e. in first position over, all other water rights including the Town of Friday Harbor's. The Washington Water Trust in their 2016 report (attached in PRISM) has calculated that there is currently sufficient impounded water in the lakes to provide year-round instream flow in False Bay Creek. Even though we have not acquired this property yet, another study via a PIFA grant in partnership with the Conservation District and Public Works is in progress. The PIFA study will evaluate bathymetry, lake capacity, hydrological profile of the creek, and modeling of flow scenarios. Once the property (with accompanying senior water rights) is secured, the Preservation Trust will work with the Washington Water Trust and Department of Ecology to establish an instream flow reservation for False Bay Creek.

Would like to hear more about the Preservation Trust and Land Bank's effort to improve stream conditions on existing ownership/easements in the watershed and how management for fish are prioritized and included in the relevant management plans.

The #1 priority for the Zylstra Lake Project is to protect and improve fish and wildlife habitat.

Altogether the Preservation Trust, Land Bank and the University of Washington hold fee title and/or conservation easements on over 40 % of False Bay Creek riparian lands between Lower Zylstra Lake and False Bay. These three organizations plan to work with the remaining three (private) landowners to achieve riparian protection as part of the restoration of False Bay Creek anadromous fish habitat.

Permanent conservation easements held by the San Juan Preservation Trust were created in 1990 (Red Mill Farm and Black) and in 1998 (Doran/Land Bank) to reflect historic uses in San Juan Valley, with allowances for agricultural activities that include out-of-stream and pond-use of water resources. The Preservation Trust recently acquired title to Red Mill Farm, and has begun the process of transitioning away from long time ranching practices that negatively impact stream health. The community's current focus on riparian restoration is compatible with

the terms of the Preservation Trust's conservation easements, but not specifically prescribed in the easement documents. The Preservation Trust plans to improve creek and riparian habitat management over the coming years by working with the existing rancher lessee to achieve best management practices and exclude agricultural activities where appropriate.

The Land Bank's "False Bay Creek Preserve Stewardship and Management Plan" objectives for the 40 acre Preserve (located where False Bay Creek crosses Bailer Hill Road) are to:

- 1) Manage the Preserve to protect and restore priority habitats and species;*
- 2) Maintain, enhance, and restore riparian and in-stream habitat zones to maintain and/or increase native species diversity;*
- 3) Seek opportunities to cooperatively manage the Creek(s) to benefit anadromous fish;*
- 4) Manage agricultural use to be compatible with the overall ecological health of the Preserve;*
- 5) Encourage a greater understanding of the property's natural systems through research and education; and*
- 6) Ensure all ecological activities are consistent with the Preservation Trust's easement.*

The University of Washington's 22-acre parcel at the mouth of False Bay Creek is managed as a natural area, but no management plan has been developed for the property. The University of Washington has pledged this parcel, along with the tidelands of False Bay, as "match" for the Coastal Wetlands Acquisition Grant, and – if the application is successful - has agreed to enter into a Notice of Federal Participation to ensure protection in perpetuity.

Project benefit to salmon overreaches. Stress connectivity of the acquisition. Address fish passage at the lower dam. Include overall watershed plan or stormwater plan for San Juan County (and how this proposal fits in). Include associated reports (water studies).

*The goal of this acquisition project is to purchase Lower Zylstra Lake & associated senior water rights and extinguish 12 development rights. Numerous efforts to restore anadromous fish habitat in this watershed have, until now, been thwarted by the lack of control over water resources and stream flow. While purchase of the property will not, by itself, result in return of anadromous fish populations to False Bay Creek, purchase of the property is **the essential first step** in the protection and restoration of the watershed's anadromous fish habitat, and establishes the necessary foundation for successful reintroduction of anadromous fish populations. Subsequent to this acquisition, restoration actions may include providing step pools for fish passage of the Lower Zylstra Lake dam allowing salmonids access to the cooler lake water at depth.*

Per conversations with Byron Rot, False Bay Creek has been identified as a priority watershed by the San Juan County Salmon TAG. San Juan County's Stormwater Basin Plan has also identified False Bay as a priority basin for stormwater planning efforts. As the largest watershed in San Juan County, this acquisition represents the single most significant opportunity in the county to re-connect and restore once functioning anadromous fish habitat. Ownership of this property and its associated senior water rights will open the door to numerous opportunities that were previously impossible to pursue. Although the size of the anadromous fish populations anticipated to return are not large relative to mainland stream systems, the importance of this effort to the community is significant and the opportunities it will open up to build upon this initial key investment are huge.

Many studies of the False Bay watershed have been completed – see list below. Not all of these can be provided in PRISM so we have chosen the ones we believe are most useful for this application to attach in PRISM.

- The San Juan County Watershed Management Action Plan (2002)
- San Juan County Water Resources Management Plan (2004)
- San Juan County Implementation Plan (2006, RCW 90.82)
- San Juan County Land Bank Preserve Inventory: *Ecological Assessment for the False Bay Creek Preserve/Doran Property*. (San Juan County Land Bank, 2009).
- Ontogenetic Diet Shifts of Juvenile Chinook Salmon in Nearshore and Offshore Habitats of Puget Sound. (Duffy, 2010)
- False Bay Creek Monitoring Report, Spring 2010, Rozewood Environmental
- False Bay Creek (San Juan Island, Washington) Freshwater Fish and Their Prey: Significant Contaminants and Their Sources (Kwiaht, September 2010)
- San Juan County Groundwater Basin Delineation: San Juan Island Water Right and Water Use Characteristics (San Juan County Health and Community Services, Environmental Health, San Juan County Water Resources Management Committee, 2011)
- Stream Habitat Restoration Guidelines (WDFW, 2012)
- San Juan County Pilot Stormwater Monitoring Program, (Stillwater Sciences, 2014)
- San Juan County Stormwater Basin Plan, Volumes 1 and 2 (Herrera, 2014)- can be found on San Juan County's web site at <http://www.sanjuanco.com/372/Basin-Planning>
- False Bay Creek Preserve Riparian Enhancement Project JARPA including Wetland Reconnaissance Technical Memorandum (San Juan County Land Bank, prepared with support from Water & Land Natural Resource Consulting and Rozewood Environmental, February, 2016)
- Soil Survey for San Juan County, NRCS
- San Juan County GIS mapping for wetlands, streams and frequently flooded areas
- WDFW Priority Habitats and Species data, as well as available data from Washington DNR, Natural Heritage Program and USFWS on state and federally listed terrestrial species
- Salmon Recovery Chapter for WRIA 2 of the Puget Sound Salmon Recovery Plan

Attached in PRISM:

- San Juan County Water Quality Monitoring (San Juan Islands Conservation District and UW Friday Harbor Laboratories, 2008)
- 2010 Fish Use Assessment for False Bay Creek Preserve and False Bay Biological Reserve (Wild Fish Conservancy, 2010)
- False Bay Flow and Habitat Assessment Report – Executive Summary (Washington Water Trust, 2012)
- Summary of Fish Catch Results for False Bay, 2008 and 2009 - Skagit River System Cooperative Research Program. (Beamer & Fresh, 2012)
- Zylstra Lake Water Rights Management Assessment (Washington Water Trust, 2016)

Is there a management plan? If not, outline a path to how a management and maintenance plan will be developed and what key factors will be used to guide the development of the management and maintenance plan?

Before undertaking this project, the Preservation Trust – Land Bank partnership agreed that fish habitat would be the top conservation priority for the property, eclipsing all other conservation values. Once the property has been acquired, this partnership will develop a Stewardship

Management Plan for the Zylstra Lake property that includes a detailed site description and inventory; management goals; management guidelines; and management activities, including restoration activities and management of invasive species. This Stewardship Management Plan will be guided by the Preservation Trust's and Land Bank's missions to protect and preserve conservation values.

Make a better case for salmon. Show efficiency and value compared to other projects.

Purchase of the Lower Zylstra Lake property with senior water rights and extinguishing existing development rights is the most cost efficient (and only) way to provide habitat protection and instream flow necessary for restoration of anadromous fish populations in the False Bay watershed. Additionally, the Beamer/Fresh Fish Usage study found juvenile Chinook salmon when seining at the mouth of False Bay Creek. Thus this acquisition will protect water quality and increase water quantity which will support Chinook salmon rearing habitat in lower False Bay Creek and False Bay where the health of eelgrass beds will also benefit from clean freshwater input.

This acquisition leverages partnerships with other organizations working in the False Bay watershed such as the San Juan County Land Bank, the Conservation District and Public Works. This \$450,000 SRFB grant request leverages more than \$2,500,000 additional local, state, federal and private funding sources. Not only will the Lower Zylstra Lake acquisition grant funds be matched by other sources to make the purchase possible, but the acquisition of Lower Zylstra Lake will be "matched" as well by purchase of Upper Zylstra Lake and subsequent restoration actions on False Bay Creek. The success of this proposal is the essential first step that will open the door for a number of exciting future initiatives in this watershed that were once impossible to consider (just as the failure of this effort will close the books on a number of promising restoration opportunities).