



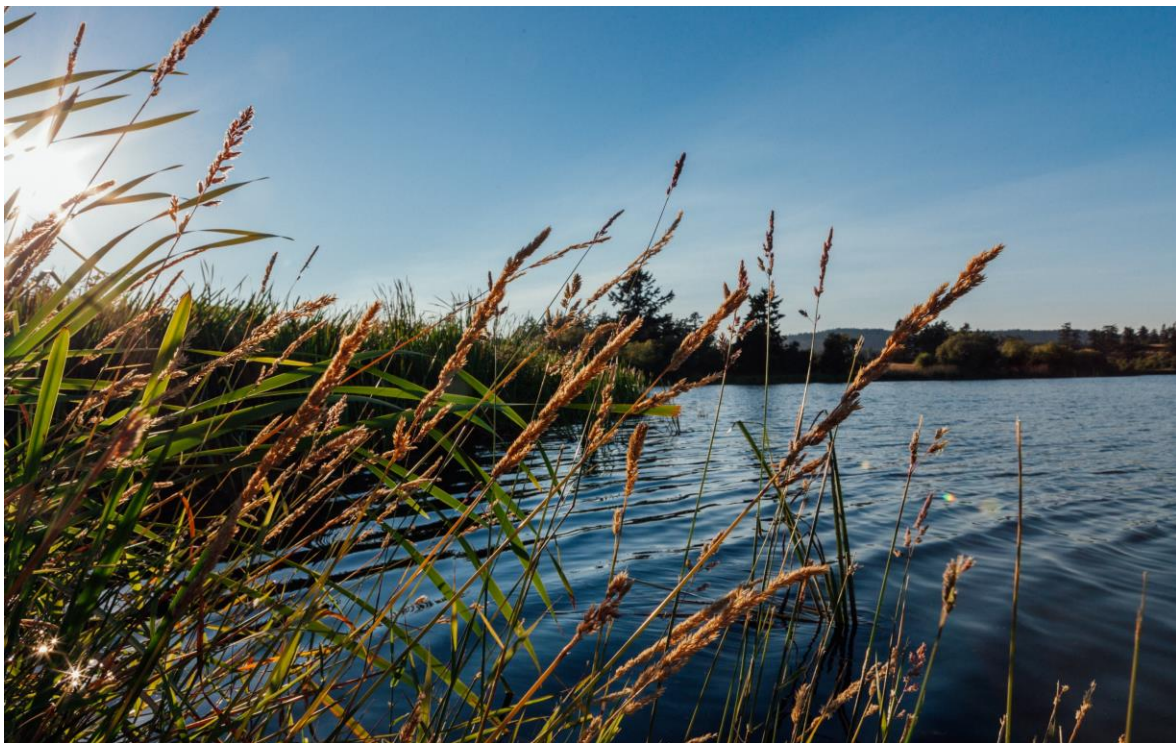
SAN JUAN COUNTY

LAND BANK

# **Zylstra Lake Preserve**

**Updated Interim**

**Stewardship and Management Plan**



**September 2020**

**San Juan County Land Bank**

**350 Court Street No. 6**

**Friday Harbor, WA 98250**

# **Zylstra Lake Preserve, San Juan Island Updated Interim Management Plan**

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## A. Introduction

Zylstra Lake Preserve on San Juan Island features two lakes, segments of False Bay Creek, wetlands, fields and forests. It possesses fertile soils, sweeping vistas and a diversity of wildlife. Under public ownership, the opportunities this preserve offers to county residents are substantial. They include farming, low-intensity recreation and the potential to enhance ecological health well beyond the property's boundaries. The Land Bank seeks to balance these objectives. Assuredly, the development of a cohesive long-term management plan, in which each interest complements the others, will require continued inter-agency cooperation and community engagement.

The initial purchase of the property was a collaborative effort. The Land Bank and The San Juan Preservation Trust partnered in the acquisition; neither organization could purchase the property alone, but both were highly motivated to protect it as open space. In 2015, at the time of sale, there was a competing offer on the table from a developer who envisioned a 28-home lakefront community. This was, in fact, the alternate future of the property. Fortunately, the sellers favored conservation.

Zylstra Lake Preserve was identified by environmental organizations as a critical property for salmonid recovery long before the 2015 purchase. From a landscape context, the Preserve is significant. It is situated in the largest watershed on San Juan Island; it is identified in the [San Juan County Comprehensive Plan](#) as Agricultural Resource Land; and False Bay Creek remains a high priority for restoration in the County.<sup>1</sup> The potential to improve the quantity and quality of freshwater within the lower courses of False Bay watershed also prompted the University of Washington to become involved in the conservation effort.

The marine estuary of False Bay is protected as a biological preserve by the University of Washington. In recent years, concerns about the overall health of the bay have increased as there have been documented declines in eelgrass, a key ecosystem component. This could be due in part to diminished freshwater flows and the high load of nutrients within the False Bay Creek system. For these reasons, the University became another partner in the acquisition effort. Their participation helped to secure a one-million-dollar award from the U.S. Fish and Wildlife National Coastal Wetlands Conservation Grant Program, administered through the Department of Ecology, for the Zylstra Lake Preserve.

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<sup>1</sup> Lower False Bay Creek fails to meet the State's water quality measures. It is a 303(d) listed stream for temperature and fecal coliform.

This document serves to update the existing interim management plan, approved by the Land Bank Commission in November of 2016, in a variety of ways. First, it details the findings from several ecological assessments and provides a natural resource inventory (Section C). It acknowledges the Preserve's agricultural values and designation, as well as the community's interest in seeing farming continue. This update provides an overview of the Preserve's assets and current uses, and it initiates a collaborative strategy for designating future farm areas and activities (Section D). Lastly, this update to the interim plan proposes opening a select area of the Preserve to public access. A map of the walking trail and a summary of the restrictions are provided in Section E. Two-year cost estimates (Section F) and the Land Bank's ongoing public process (Section G) are also provided.

It is important to note that the Land Bank has recently been asked to explore opportunities on the Preserve that would support tribal youth and culture. Although this document does not detail the potential within this request, it is another goal of the interim period to, at minimum, engage in further conversation about tribal collaboration, values and use.

Long-term management of Zylstra Lake Preserve offers a wide number of opportunities. It presents the opportunity to advance agricultural practices within the County and extend recreational uses on the Preserve, as well as the challenge of doing so while also protecting and enhancing limited natural resources. Experience elsewhere has shown that positive outcomes are most likely when improvements are planned carefully, communicated clearly and implemented in phases by priority. This two-year extension of the interim planning period is designed to provide more time to assure success in a balanced, long-term approach.

The Land Bank has consulted Washington State's Department of Ecology on the activities described in this updated interim, and the U.S. Fish and Wildlife Service has concurred that these proposed uses appear to be compatible with the primary purpose of the grant, habitat conservation. This assures that the Land Bank is in compliance with the Notice of Federal Participation which is required with the acceptance of the National Coastal Wetlands Conservation grant.

In broad scope, the Land Bank's stewardship goals for the extended interim period include:

- To enhance freshwater resources and other ecological values and services;
- To assemble an agricultural resource group to develop long-term goals;
- To open a select area of the Preserve to pedestrian access, and assess future opportunities for low-impact recreation; and
- To build relationships to inform and support indigenous cultural uses and values.

## **B. Preserve Overview**

Zylstra Lake Preserve encompasses 284 acres in the False Bay watershed. It is located on the south side of San Juan Valley Road, approximately two and a half miles from Friday Harbor and over two miles upstream from the 300-acre False Bay Biological Preserve, an estuarine habitat owned and protected by the University of Washington. The False Bay watershed covers 11,464 acres and is the largest stream basin in the County.<sup>2</sup> Zylstra Lake Preserve is located in the lower reaches of this watershed, in the large, low gradient floodplain of San Juan Valley, which also has some of the highest water recharge rates for the island.<sup>3</sup>

Freshwater enters the upper lake via the False Bay Creek sub-basin. This sub-basin includes Wood Duck Pond, Margos Lake, Lawson Lake, and Trout Lake. It provides the Town of Friday Harbor with its potable water supply. The Preserve's two lakes were created circa 1963 by constructing earthen dams across False Bay Creek. Although the watershed had already been heavily altered by roads and agricultural ditching, creation of the 48-acre northern lake and the 7-acre lower lake undoubtedly further changed the hydrology and habitat of more than two miles of stream, as well as the brackish environment of the bay.

The senior water rights associated with the lakes total 365 acre-feet and were a significant motivating factor in the Land Bank acquiring the property. They create opportunities to: convey in-stream flow, irrigate agriculture lands and provide recreational opportunities. The water rights also create a high level of complexity. The freshwater resources on the Preserve, regardless of their ascribed value are associated with the two dams, and neither dam has been maintained to meet Washington State regulations for decades.

The USDA Natural Resource Conservation Service has mapped 11 different soil types within the Preserve. All of these soil types are limited by seasonal wetness and perched water tables. However, approximately 123 acres are considered prime for agricultural uses. Another 62 acres are considered prime for agriculture if drained.

Euro-American agricultural use of the Preserve dates roughly to the mid 1800's. Information from that era shows grazing and timber harvest.<sup>4</sup> Since then, the Preserve has been used to produce a variety of crops. In recent history, including at the time of purchase, the property was used for haying and cattle grazing.

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<sup>2</sup> False Bay Watershed Hydrologic Assessment, Northwest Hydraulic Consultants Inc, 2017

<sup>3</sup> [SJC Water Resource Management Plan](#), 2004.

<sup>4</sup> See Pratt "A Cultural History Assessment of Zylstra Lake Preserve." 2016.

This landscape has been home to Coast Salish peoples since time immemorial. Here, they have collected and cultivated plants for food and medicine. The assemblage of natural resources on the Preserve, its mosaic of oak and camas, bulrush and freshwater, all have known cultural uses. Despite the lack of archeological evidence of Coast Salish settlement at the site that is now Zylstra Lake Preserve, it is safe to assume that these natural resources provided and supported human life and culture long before the 1800s.

### **Acquisition History**

In 2018, full public ownership of the Zylstra Lake Preserve was achieved. It took three years, creative partnerships, re-sale of the original estate's residence and farm infrastructure and momentous grant funding, to acquire the property. The San Juan Preservation Trust (the Trust) and the University of Washington were essential in securing a million-dollar award from the U.S. Fish and Wildlife Service National Coastal Wetlands Conservation Grant Program. The total purchase price of the property was \$3,000,000.

Although the property still carries the Zylstra family name, largely because the Zylstras were responsible for the creation of the two lakes, the Land Bank and the Trust jointly purchased the Preserve from the Tomas family estate in 2015. (The Tomas family purchased the property from the Zylstras in the 80s). The original Tomas estate was roughly 514 acres. Of that, 314 acres of the property were sold to the Land Bank and the Trust. The Land Bank resold the 30-acre parcel that contained a bulk of the estate's infrastructure. The Tomas family sold another 200 acres to several other private buyers. All water rights were included in the Land Bank's and the Trust's purchase as part of the deed to the property. The Trust transferred their partial ownership to the Land Bank in 2017. Currently, the Land Bank owns the property outright.

### **Conservation Easement**

In 2018, the San Juan Preservation Trust placed a conservation easement on the Zylstra Lake Preserve.<sup>5</sup> The purpose of the conservation easement is to protect the ecological, open space and passive recreational values of the property, as well as the property's water rights. It achieves these objectives by prohibiting residential development and abandonment of water rights; by restricting types of activities, such as motorized vehicle use; and by providing guidelines for conserving the property's highest values. Highest values were defined as: ecological habitat, water rights and passive recreational use, followed by undeveloped open space. Agricultural activities are allowed in the conservation easement though setbacks from freshwater sources are required. Greater detail is provided in Section D. Finally, the conservation easement reserves the Right of First Offer to the Trust.

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<sup>5</sup> Grant Deed of Conservation Easement #2012-0812012.

## **Access Easements**

Two access easements are associated with the Preserve. The primary access is a gated entry off of San Juan Valley Road. A secondary easement enters off of Valley Farms Road and permits access to the lower lake. An OPALCO electrical line also enters the Preserve from Valley Farms Road. There is no existing easement on the Preserve's main entry road that links the upper lake to the lower lake.

## **Water Rights**

Two water rights were originally associated with the construction of the lakes. The first was a reservoir water right for 285 acre-feet of water to be used for irrigation of 295 acres. The second was an instream, or surface, water right of 80 acre-feet for irrigation of 40 acres. Professional review indicates that the reservoir water right is still valid but there is some question if the surface water right has expired.<sup>6</sup> Both water rights were conveyed to the Land Bank and the Trust by the Tomas family estate and were included explicitly in the statutory warranty deed.

Potential considerations for the Preserve's significant freshwater resources are numerous. They include: protecting the reservoir rights from abandonment by enrolling them in the Washington Water Trust, transferring partial reservoir rights to other areas for agricultural use, transferring partial reservoir rights to provide freshwater inputs to False Bay creek and estuary, and leasing water to downstream farmers as well as future agricultural lessees of the Zylstra Lake Preserve.

Water rights associated with the property are protected by the conservation easement and any "transfer, encumbrance, sale, lease, separation or change from historic use" requires consent by the San Juan Preservation Trust (6.19). Additionally, any changes in water use would require careful evaluation to ensure that potential hydrological impacts would not conflict with the primary purpose of the National Coastal Wetlands Conservation Grant Program funding.

## **Infrastructure**

As a developed farm with a long history, Zylstra Lake Preserve has substantial infrastructure including roads, dams, agricultural structures and fencing. With the exception of a few fences, a vast majority of the infrastructure was in place prior to the Land Bank's ownership. Many of the systems are old and depending on long-term objectives, they may need maintenance, replacement or removal. A brief summary is provided below.

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<sup>6</sup> Zylstra Lake Water Rights Assessment, Northwest Land & Water, Inc. with Smayda Environmental Associates, Inc. 2016.

### Roads

The roads that lead into the Preserve from San Juan Valley Road and Valley Farms Road are single-lane and graveled. Entrance to the Preserve for public access is proposed at the property's boundary with San Juan Valley Road. Other primitive roads loosely parallel the perimeter of the property. In the northwest corner of the Preserve, the road is in poor condition and the Land Bank may need to renovate or remove a failing culvert.

### Dams

The two earthen dams on the Preserve were constructed by the Zylstra family as a means to impound False Bay Creek and capture water for agricultural irrigation. It was an ambitious project. Combined, the freshwater withheld by the dams covers approximately 55 acres. Former landowners did not allow the dams to be inspected and when the Washington State Dam Safety Office (DSO) examined the dams in 2019, it was for the first time in several decades. Both impoundments received a hazard class rating of "Low" and a condition class rating of "Fair."<sup>7</sup>

However, because a dearth of information exists about the dams, the State DSO also requested a hydrological analysis to review the holding capacity of the structures, and a geotechnical study to identify the soil type and compaction level of the earthen berms. Preliminary analysis suggests that the dams have been modified to impound a greater volume of water than is permitted. Near-term maintenance will necessitate a drawdown of lake levels prior to the rainy season to reduce the possibility of damage from flooding. The valve on the upper lake dam is buried beneath sediment and inoperative, and another mechanism for releasing water, a series of wooden stoplogs, creates hazardous working conditions for staff. In addition to the State's requested analyses, other interim maintenance requirements entail: annual mowing of the embankments, annual inspecting of the infrastructure, monitoring the intakes and spillways for accumulated debris and developing of an operation manual. Gaining further clarity on the integrity of the infrastructure and the long-term expenses of the dams is one goal of this extended interim period.

### Structures

Seven open-sided structures exist on the Preserve. These covered livestock structures are considered to be in fair condition. Their associated concrete pads total an estimated 10,000 square feet. Two are currently being used by a neighboring animal rescue nonprofit. More information is provided in Section D.

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<sup>7</sup> Condition assessment is in the line with the National Inventory of Dams: <https://nid-test.se.usace.army.mil/ords/f?p=105:1>



## Fencing

The Preserve has perimeter fencing along its boundaries, although there are some exceptions. Fencing ranges in age, material, condition and use. Portions of the perimeter (and interior) fences that injure or impair wildlife and do not follow surveyed property lines will be reviewed and prioritized for removal or adjustment.

## **C. Ecological Overview and Conservation Objectives**

Habitat and resource protection is a guiding principle of the Land Bank's stewardship program. Maintaining or restoring an area's ecological health also typically preserves, if not enhances, its scenic and open-space character, its agricultural viability and its recreational opportunities. For example, wildlife activity on a preserve affords memorable, outdoor experiences for preserve visitors and noxious weed removal from grasslands improves forage quality.

Within the context of San Juan County, False Bay Creek is a significant watercourse. Over the past century, its freshwater system and wetlands have been altered – ditched, impounded and diverted – in order to facilitate agriculture, transportation and residential development. Such activities and the subsequent losses to freshwater environments are not unique to the archipelago; freshwater environments are imperiled across the country.<sup>8</sup> The National Coastal Wetlands Conservation Grant Program was predicated on this as well as on the acknowledgement that these environments provide critical habitat and possess far-reaching ecosystem services including, but not limited to, surface water filtration and carbon sequestration.

False Bay Creek, downstream of Zylstra Lake Preserve, has been the focus of significant restoration efforts. The Land Bank, the San Juan Preservation Trust, the San Juan Islands Conservation District and SJC Public Works have partnered in a variety of ways to reduce the creek's temperature and pollutants. Projects have included providing off-stream water sources for livestock, installing fences to keep livestock from entering the creek, controlling invasive reed canary grass and replanting native riparian vegetation.

These efforts are helping to improve the stream channel, water quality, and riparian characteristics downstream of Zylstra Lake Preserve. The enhanced integrity of aquatic habitat will benefit salmonids, including fall chum salmon, coastal cutthroat trout, and potentially, coho salmon. And, as downstream habitat improvements take effect, the use of

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<sup>8</sup> From National Wetlands Priority Conservation Plan, U.S. Department of Interior, FWS, 1991.

the impounded water rights held by Zylstra Lake Preserve could be re-evaluated by the Washington Water Trust and Department of Ecology in order to help restore in-stream flow that would benefit salmonids and the False Bay Biological Preserve. The seasonal release of water from Zylstra lakes into the lower reaches of False Bay Creek, in order to augment in-stream flow for fish, has also been studied.<sup>9</sup>

The National Coastal Wetlands Conservation Grant Program recognized both the concerted collaborative efforts to improve False Bay Creek and the importance of the connection between Zylstra Lake Preserve and the downstream tidal wetlands and estuary of False Bay. A grant was awarded to protect the freshwater riparian habitat from any further conversion. Post-acquisition, the Land Bank contracted with professional consultants to evaluate the Preserve's ecological resources.<sup>10</sup> The biological assessments focused on the features highlighted as regionally significant in the grant such as water quality, wetlands and wildlife, with a special emphasis on bird life.

This update to the interim Stewardship and Management Plan provides a summary of these assessments as well as an overview of the major habitat areas that exist across the Preserve (Figure 1). Classification of the Preserve into habitats helps to inventory resources and to organize and prioritize management activities. The overarching ecological goal for Zylstra Lake Preserve is to protect and enhance freshwater resources and other ecosystem values and services. The Land Bank's interim goals, in terms of ecological values, are to develop a riparian restoration plan; seek outside funding for restoration work; and to continue to work with partners to improve water flow and quality in the False Bay Creek watershed.

## **Wildlife**

Otter, muskrat, mink, black-tailed deer, raccoon and several species of bats are among the native wildlife known to use the freshwater resources at Zylstra Lake Preserve. A few gnawed stems of willow and cottonwood also indicate that at least one beaver has been on site. Documented reptiles include garter snakes and two species of turtles. However, survey results revealed native amphibians, even the locally common Pacific chorus frog, to be nearly absent from the property in 2019; a surprising result in light of the available breeding habitat apparently present. Many amphibians breed in aquatic environments but rely on forests to complete their life cycle. The lack of forested areas adjoining the lakes is perhaps in part responsible for this paucity. Another potential factor could be the

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<sup>9</sup> False Bay Watershed Hydrological Assessment, 2017.

<sup>10</sup> Contributors to the "Zylstra Lake Ecological Assessment" include: Rozewood Environmental Consulting, Water and Land Natural Resource Consulting and Essency Environmental, LLC.

abundance of highly predatory, non-native species. Currently, bullfrogs, largemouth bass and free-roaming cats are all present on the Preserve.

Largemouth bass comprised 98.8 percent of the species collected through fyke net and seine sampling. Other introduced fish species identified during the three-day survey period were bluegill sunfish, pumpkinseed sunfish and brown bullhead catfish. One native, a reticulate sculpin was captured and recorded.

The protection of winter waterfowl was identified early on as a conservation value of the property and a thorough, year-long bird survey was commissioned following acquisition.<sup>11</sup> This survey catalogued a total of 107 species. Diversity ranged from Virginia Rails to seven different types of raptors.<sup>12</sup> Additionally, 62 of the species found on site may have bred on or nearby the property.

The bird survey delineated the Preserve into several zones and species richness for each zone was noted. Although the zones for the bird survey differ slightly from the land cover classifications made by Land Bank staff (which are detailed further in this section), they still offer insight. Among the variety of habitat types, woodlands, or mixed upland forest, possessed the highest bird diversity with 61 species recorded. This included a pair of nesting Bald Eagles. Aquatic areas had the lowest diversity, with only 20 species recorded. Fifty-one species were counted within riparian areas; 47 species were found within shrubs and hedgerows; and 25 species were found in the grasslands.

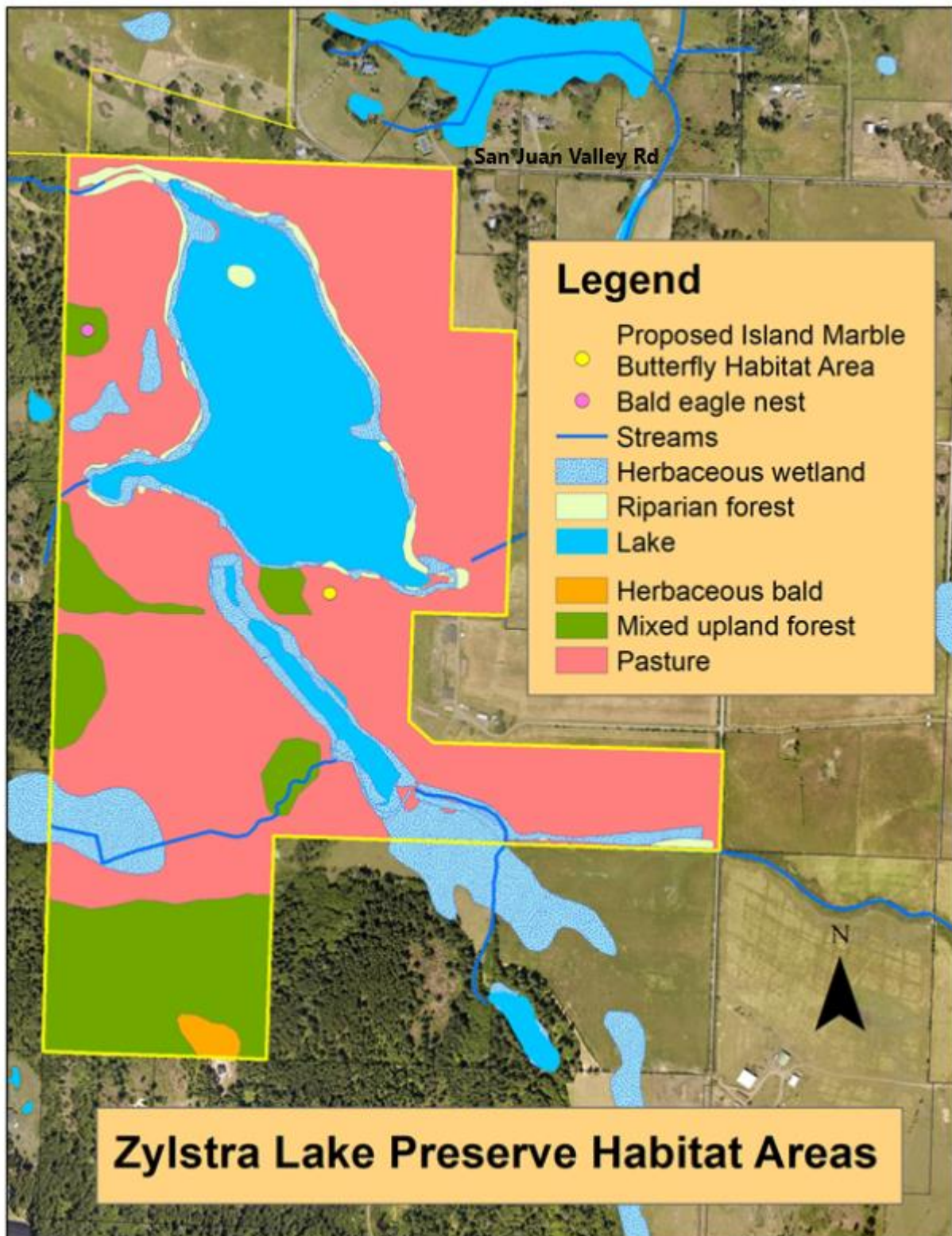
An endangered species, the Island Marble Butterfly is also found in open habitats like native and agricultural grasslands where certain plants in the mustard family grow. Although the butterfly has not been found on the Zylstra Lake Preserve, the Land Bank was recently awarded a separate U.S. Fish and Wildlife Service grant to establish three small areas of Island Marble Butterfly habitat. Zylstra Lake Preserve is one of three Land Bank preserves to be included in this recovery project and a quarter-acre of grassland has been designated for habitat creation. Activities will center on the annual cultivation of small patches of field mustard. The initial area selected at Zylstra Lake Preserve is located in a field that is near a historic mustard patch, and that less suitable for farming due to its minimal size and close proximity to the upper reservoir.

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<sup>11</sup> RavenSight Consulting, “Zylstra Lake Bird Abundance Survey Report,” 2018-2019.

<sup>12</sup> Great Horned Owl, Bald Eagle, Merlin, Peregrine Falcon, Cooper’s Hawk, Sharp Shinned Hawk, Northern Harrier.

**Figure 1. Zylstra Lake Preserve Habitat Areas**



## Conservation Habitat Areas

Nearly all of the Preserve's habitat areas have noxious weeds. Yellow flag iris is present in the waterways, reed canary grass dominates extensive sections of the wetlands and thickets of English Hawthorn and Himalayan blackberry are found scattered throughout the uplands. Five of the approximately 11 noxious weed species found on the Preserve are required to be controlled in the County.<sup>13</sup> In general, the Land Bank's weed management efforts will be focused in areas of greatest priority and vulnerability, and where actions have the greatest chance of success. Methods follow Integrated Pest Management approaches, with the preferred methods being manual and mechanical control and with cut stem and spot herbicide treatment used on a case by case basis for species that are difficult to control.<sup>14</sup>

## Lakes and Streams

The Preserve's two lakes combine to cover approximately 55 acres in open water, or aquatic habitat. In addition to these freshwater bodies, short sections of False Bay Creek also flow on the property; the main stem of False Bay Creek runs west of the inlet to the upper lake and then again below the lower lake dam. Three other tributaries convey their seasonal flow into False Bay Creek. Two of these waterways are unnamed, ephemeral and have been modified as ditches to improve the drainage of the surrounding farm fields. One flows into the upper lake's southeastern cove and the other enters the lower lake from the west. The third watercourse is an area of concentrated, seasonal surface flow that enters the southwestern corner of upper lake.

Water quality assessments focused primarily on the lakes and revealed that they are both shallow, densely vegetated and warm. Sediments carried from the watershed are trapped by the northern impoundment and have buried the dam's water release valve. An illicit attempt to dredge the upper lake in the 1980s suggests that sedimentation had already become an issue, and that left unmanaged the upper lake will follow a trajectory of becoming shallower, if not also warmer.

In 2019, Land Bank staff placed data loggers in several areas around the lakes to record water temperature. Current temperatures are deemed inhospitable to most native fish.<sup>15</sup> The Land Bank will continue to monitor water temperature, although this is only one component of water quality.

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<sup>13</sup> Control required for Yellow flag iris, Common teasel, Sulphur cinquefoil, Tansy ragwort and Hoary cress.

<sup>14</sup> For further details see the Land Bank's *Guidance for Integrated Pest Management*.

<sup>15</sup> A temperature log is provided in Appendix A.

Other water quality testing, which was accomplished by consultants, included measurements for nutrient levels, dissolved oxygen levels and visibility. The results of these tests indicate that eutrophic conditions exist in the lakes. These conditions, characterized by high nutrient levels and extensive plant growth, can be a natural process and indicative of an open water system transitioning into one with swamp-like features. Eutrophication can also occur when excessive levels of nutrients such as phosphorous and nitrogen are present. The latter is the likely case for these lakes.

In the upper lake, during the late summer, moderately high levels of phosphorus were detected. This indicates pollution from fertilizers, manures or other nutrient-rich wastes, and it likely originates from the surrounding farmland. There is also most likely “legacy” phosphorus present in lake sediments from past century of farming. High nutrient levels promote dense plant growth. The decay of dense plant growth creates a lack of oxygen in the underwater community, and this subsequently causes stress to aquatic animals. Stagnation, or poor circulation in the lakes, further exacerbates hypoxic conditions.

Late summer sampling in the upper lake also identified the presence of a number of species of cyanobacteria, known commonly as blue-green algae, as well as very low levels of associated toxins. Algae and cyanobacteria also naturally occur in aquatic ecosystems. Blooms of certain cyanobacteria species may produce toxins that are harmful to other aquatic organisms, wildlife, livestock, pets and people. Warm water temperatures and the availability of nitrogen and phosphorus can be associated with algae and cyanobacteria blooms. In 2019, the toxin levels found in upper lake were so low as to be barely detectable and did not indicate a health concern. However, since algae and cyanobacteria blooms are not predictable, and can change rapidly, monitoring to detect future blooms is warranted if people or pets are accessing the water or eating fish from the locale. This is addressed further in the section on public access (E). Over the course of the interim period, the Land Bank will continue to sample water quality.

### Herbaceous Wetland

Herbaceous wetlands occupy a number of settings on the Preserve. They are found along the margins on both lakes, border False Bay Creek downstream of the lower lake and are found within pastures, some of which are continuing in agricultural use. Wetlands boundaries have not been officially delineated. Instead, their locations were approximated by professional consultants, staff and the County’s “Possible Non-Tidal Wetlands” maps. Reed canarygrass, an invasive, is the most dominant plant in this habitat area. However, native plants are thriving in some portions, particularly in zones of shallow water around upper lake. Here, species include common cattail, hardstem bulrush, soft rush, spikerush and others. These areas provide good foraging territory for waterfowl and breeding habitat

for amphibians and some bird species. Areas dominated by reed canarygrass would be greatly improved by replacement with native vegetation.

### Riparian Forest

The term riparian is used to refer to the transitional zone between the Preserve's uplands and its major water bodies, the two lakes and False Bay Creek. In general, the riparian forest that borders the upper lake and stream corridor is very narrow in width. It ranges from 20 to 60 feet wide. It is also young in age and small in size. The dominant species are primarily Pacific willow, with some Sitka willow and red alder and a select few black cottonwoods. Creekside occurrence is generally wider, has a greater variety of trees and shrubs, and contains more dead wood which is also considered a valuable habitat feature.

The riparian habitats bordering the lake as well as downstream along the creek are lacking in species diversity and structure. Both assessments, for water quality and for wildlife, recommended considerable increases to the Preserve's riparian zones. Enhanced riparian vegetation would help to improve water quality. The shade produced by trees and shrubs could reduce temperatures and larger swaths of vegetation would provide greater opportunities for pollutants in surface runoff to be filtered prior to entering waterbodies. Mammals, birds, insects and amphibians would also benefit by gaining nesting, breeding and foraging habitat.

### Mixed Upland Forest

Mixed upland forest covers the southern 25 acres of the Preserve and is found in much smaller, fragmented patches throughout the property's middle sector. Within the southern 25-acre stand, a diversity of forest compositions and conditions are found. In its central portion, mature big-leaf maples are found within a diverse stand of Western red cedar, red alder, grand fir and Douglas fir. Snags and woody debris are relatively abundant here as well and offer desirable nesting and foraging habitat. Farther north, the forest transitions into red alder, salmonberry and nettles. Rockier portions are dominated by a Douglas fir canopy, a dense shrub layer of oceanspray and a low-diversity herbaceous layer. This stand of forest also extends onto several adjacent properties, further increasing its value for species such as pileated woodpeckers which require large habitat blocks.

Additional small patches of upland forest are found in the central portion of Zylstra Lake Preserve and along its western boundary. Douglas fir dominates these areas. In general, fir occupy drier sites and display a relatively open-grown woodland structure. Some areas have a predominantly native understory with snowberry, Nootka rose and other common shrubs. Control of invasive plants and establishing connections, or corridors of similar vegetated cover, between these more isolated patches would increase the integrity of this habitat area.

### Herbaceous Bald

A small but diverse herbaceous bald occupies the Preserve's point of highest elevation, approximately 200 feet above sea level, along its southern border. Located within an opening in the mixed upland forest, the bald has thin, rocky soils that are colonized by grasses and wildflowers. Herbaceous balds are considered a Priority Habitat by the Washington State Department of Fish and Wildlife because they support a diversity of plants, insects and other dependent species.<sup>16</sup> Even small patches like this one are valuable as part of a larger mosaic of native grasslands. Species present include Garry oak, sea blush, chocolate lily, common camas, death camas and other wildflowers. Two of the major threats to herbaceous balds are non-native plants and conversion to forest in the absence of wildfire.

### Fields (Pastures)

In recent decades, the Preserve's 123 acres of field have been dedicated to grazing and haying. As undeveloped working lands, pastures can benefit a variety of species and play a vital conservation role both within this Preserve as well as the larger San Juan Valley landscape. Current cover is primarily non-native grasses. Some mixed hedgerows, found along fence lines and in field corners, are dominated by Nootka rose and snowberry. Further modifying haying practices, at least in some areas, would be beneficial for native grassland birds. At this time, haying is delayed until after Washington Primary Nesting Season (April 1- July 1). Another modification to be considered in the future is to leave some grasslands uncut in order to offer more inputs to the food web, as well as giving ground-nesting birds a greater chance of successfully rearing young. It is also anticipated that at a minimum in the future, fields within approximately 110-feet of the lakes and False Bay Creek will be managed as "buffers" and actively planted with native riparian vegetation, as funding permits.

### Summary of Wildlife and Habitat Area Objectives:

- Design planting zones to enhance wildlife habitat and water quality
- Coordinate water quality sampling with the County's Clean Water Program
- Work with neighbors to manage nutrient levels
- Investigate cyanobacteria monitoring protocols
- Manage noxious weeds
- Establish ¼ acre of Island Marble Butterfly habitat

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<sup>16</sup> See Appendix B for a complete list of the Preserve's three habitats, one habitat feature and fifteen species on the State Priority Habitats and Species List.



## **D. Agricultural Overview and Objectives**

Zylstra Lake Preserve is centrally located in San Juan Valley, an area of San Juan Island that is prized for its agricultural viability. Early surveyors recognized several of the valley's resources as being beneficial to Euro-American agriculture. They identified the rich bottomland soils of False Bay Creek as productive for crop growth; the upper, drier grasslands as pastures for livestock; and the availability of freshwater as beneficial for both enterprises. Documented endeavors on the Preserve followed suit.

Zylstra Lake Preserve has supported livestock operations for meat and dairy products, and produced a variety of crops including: grains, vegetables, fruits, hay and ornamental holly. In 1960, the Zylstra family began to purchase land in San Juan Valley. They amassed over 500 acres and named their large estate Wooden Shoe Farm. During their ownership, which extended for approximately two decades, most of the area's infrastructure was established. The Zylstra's built perimeter fencing, livestock shelters and both earthen dams. The largest dam, which extends 300 feet in length and required over 8,000 cubic yards of fill, was a massive endeavor. It flooded roughly 48 acres of land and was claimed to be the largest man-made reservoir in the State that was built by a private individual.<sup>17</sup> In 1975, a resource report for the area noted that largest lake was the most important irrigation reservoir in the County.<sup>18</sup>

These expressed resource values are, in large part, the same reasons that San Juan Valley and the Zylstra Lake Preserve remain esteemed by the agricultural community to this day. During the initial public scoping process, the local community communicated strong interest in having agricultural uses continue on Zylstra Lake Preserve, as well as concern that recreational emphasis and development, associated with the grant awarded by the State's Recreation and Conservation Office (RCO) for water access, would unduly restrict agricultural activities. This input by the community was a contributing factor in the final decision by the Land Bank Commission to reject the RCO grant award.<sup>19</sup> Several points were made consistently in support of agricultural use at Zylstra Lake Preserve. Resource values referenced included: the property's prime soils for agriculture, its senior water rights, its underlying Agricultural Resource Land designation and its connectivity to other working lands.

Connectivity of agricultural lands has become increasingly important in farmland conservation because it can provide for a continuity of operations. The Land Bank owns

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<sup>17</sup> See Pratt's "A Cultural History Assessment of Zylstra Lake Preserve." 2016.

<sup>18</sup> From *Geology and Water Resources of the San Juan Islands*. Page 71. 1975.

<sup>19</sup> May 22, 2020 LBC meeting.

two other agricultural preserves in San Juan Valley. The King Sisters Preserve to the north encompasses 58 acres. False Bay Creek Preserve to the south is 40 acres. Both of these properties are currently leased to local farmers for livestock grazing.

On its fee-owned agricultural preserves, the Land Bank strives to maintain these working lands for the community and to establish equitable and secure land access opportunities for local farmers, without negatively affecting existing private owner-operators. Leases or rental agreements are developed to reflect the values of comparable parcels. Incentives for improvements to infrastructure and soil health can also be incorporated.

As a small organization, the Land Bank seeks outside consultations and recommendations from agricultural professionals to help determine the best use of its farmed preserves. One of the goals of this interim planning period is to provide for more time for the Land Bank to collaborate with agricultural stakeholders. There is a need to review the current resource conditions and to discuss the potential for innovations that could offer broad community benefits and be compatible, if not complementary, with the Preserve's ecological and recreational values. All future activities will be in accordance with the conservation easement, deemed compatible by the Land Bank and the Department of Ecology, and reviewed by the U.S. Fish and Wildlife Service for concurrence.

This section provides an overview of the Preserve's current uses and resources, and it proposes a collaborative strategy for developing long-term goals and objectives. Until long-term uses are determined, stewardship activities will be focused mainly on soil protection and improvement and weed management. Other priorities include gaining further clarification on the conditions of the two dams as well as models for leasing irrigation water.

### **Conservation Easement**

The conservation easement held by the San Juan Preservation Trust defines allowable and restricted uses and provides details about agricultural setbacks. For example, livestock grazing requires a 200-foot setback, or buffer, from freshwater sources and designated wetlands. Other agricultural activities require a 110-foot buffer (5.7). The conservation easement provides a baseline report with maps of pastures and wetlands and directs agricultural farming activities to follow 'best management practices.'

### **Current Use**

The Land Bank currently maintains several agricultural use agreements on the Preserve. Several of these uses were in place prior to the Land Bank achieving full ownership in 2018 and have been allowed to continue during the interim period with minimal changes and at no cost.

The first agreement is with a valley rancher for the continued haying of approximately 75 acres of grassland. Following acquisition, the Land Bank requested that hay harvest be delayed until after July 1 in order to reduce impacts to the Preserve's 25 species of grassland birds. Additional modifications to hay harvest may be required in the future. A bald eagle nest is in close proximity to hayed areas. It will be monitored for nesting activity prior to harvest; and in the event that a breeding pair becomes established at this site, the Land Bank will review the National Bald Eagle Management Guidelines for recommendations related to minimizing disturbance.<sup>20</sup>

The second agreement entails use of two of the property's open-sided structures, a "show barn" with a concrete floor and a feeding shed, and five acres of field by an animal rescue nonprofit. The nonprofit uses and maintains the structures and pasture, which are ancillary to their organization, for boarding and grazing large animals such as horses.

Lastly, several farmers downstream use freshwater from the reservoirs to irrigate and water livestock.

### **Agricultural Resource Review**

To date, several assessments of the Preserve's agricultural resources have already occurred. A review of soil health, forage quality, infrastructure condition and water rights are provided below. This information was compiled by staff from the San Juan Island Conservation District, the San Juan Preservation Trust and the Land Bank. It is expected that during the interim period more information and assessments will be completed.

#### Soils

The fields and pastures are identified as have prime soils for farming, or prime if drained. Baseline soil testing was performed in 2019.<sup>21</sup> Results and averages from the five areas tested generally indicate that macro and micro-nutrient levels are in the mid- to low- range. Organic matter is approximately at five percent. Soils are slightly acidic. These results provide an important reference for future monitoring. During the two-year interim period, the Land Bank proposes investing \$20,000 to improve soil health.

#### Forage

In 2018, field observations by the San Juan Preservation Trust documented low forage diversity and multiple species of weeds. Tansy ragwort is the primary weed in open pastures. English hawthorn persists in hedgerows. Previously grazed areas such as the

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<sup>20</sup> U.S. Fish and Wildlife Service, 2007.

<sup>21</sup> Soiltest Farm Consultants, 2019.

fields around the smaller, lower lake are extensively covered with Bull and Canada thistle. There is a small, isolated patch of hoary cress in the structures area. The Land Bank is working with the SJC Noxious Weed Control Program to eradicate priority weeds.

As described in Section C, the Land Bank gives preference to manual and mechanical control methods and only uses herbicide after determining that other methods are ineffective. In the event that state listed noxious weeds are found growing within farmed areas, the Land Bank will work with the SJC Noxious Weed Program to identify control methods that don't jeopardize human or environmental health and safety or organic certification, in the event that a future lessee were to pursue it.

### Water Rights and Irrigation

The Agricultural Conservation Program provided technical engineering assistance for the dam construction on the Preserve. Both the upper and the lower lake were created to serve irrigation purposes, and as mentioned prior, two agricultural water rights were initially associated with the lakes.

The first, a reservoir water right for 285 acre-feet of water, was established to irrigate 295 acres. The second, a surface water right of 80 acre-feet, was established to irrigate 40 acres. Negotiations with farmers that have been using this water for their operations is currently underway.

It is the intention of the Land Bank to maintain its water rights and to make freshwater available for agricultural use through leases that are consistent with protecting other water uses including recreation, wildlife and fish habitat. The conditions of the dams and balancing competing water demands are integral to the potential future uses of the impounded waters. Further assessment of the embankments, valves and spillways is necessary in order to determine modifications or repairs. Further analyses, in particular a geotechnical and engineering studies, are priorities for the interim period.<sup>22</sup>

### Infrastructure

As previously noted, a majority of the historic farm infrastructure was separated from the surrounding estate and resold in 2016. However, extensive fencing and numerous structures still exist on the Preserve.

Seven covered livestock structures with concrete pads, which equate to approximately 10,000 square-feet, remain on the property. Two uncovered concrete pads, remnants of past livestock heavy use feeding structures, approximate 4,000 square feet each. These

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structures are in fair condition but in need of general maintenance and repairs. For example, though many of the roofs are still currently functional, long-term use would necessitate replacements. Additionally, a SJI Conservation District assessment noted that the covered structures would also benefit from gutters or catchment devices.

In order to remain effective, much of the Preserve's livestock fencing will need repairs to wiring and replacements of posts. Adjustments to perimeter fencing may also be necessary in order to reflect the recent property line survey. Future planning for long-term agricultural uses of the Preserve will provide guidance on infrastructure investments. During the interim period, an estimated 1,200-feet of fencing will be installed near recreational use areas. Otherwise, no significant infrastructure investments, other than necessary the dam safety and compliance measures, are scheduled.

### **Conservation Ag Resource Team (CART)**

The Land Bank proposes the formation of a diverse committee to discuss the future of agriculture on Zylstra Lake Preserve. Parallel to the CART that is currently focused on the Coffelt Farm Preserve, the committee gathered to review for Zylstra Lake Preserve will be comprised of representatives from: the San Juan Islands Conservation District, the Agricultural Resources Committee (ARC), San Juan Islands Agricultural Guild, Washington State University Extension (WSU) and the local farming community. The purpose of CART-Zylstra will be to provide recommendations for the long-term viability of the farm including, but not limited to, models for management, establishment of farm areas and uses, irrigation opportunities and input on future lease(s).

### **Future Farming Potential**

From a programmatic standpoint, the [Voluntary Stewardship Program](#) (VSP), a collaborative and incentive-based approach to protecting Critical Areas while promoting agricultural viability, will help guide future farm operations. Recommendations developed and provided by the CART committee will also help guide long-term management considerations.

It is anticipated that the stewardship of farm areas will focus on protecting soil and water resources, controlling invasive species and promoting biodiversity in the context of agricultural objectives. Practices might include establishing pollinator strips, enhancing hedgerows and planting native groundcover beneath perennial crops, if areas of pasture are to be converted and irrigated.

If hay harvest is to be the only use for the foreseeable future, a plan to replace extracted nutrients and organic matter would be required to maintain and promote healthy soils and forage. In addition to appropriate soil amendments, hay fields would also benefit from

renewal of forage base using no-till drill, multi-species blends and an aeration regime. Future haying practices would look to cut grasses above four inches in order to promote cool season species. Other types of operations would necessitate different management needs and conservation practices.

Future leases will be determined following a formal Request for Proposals. Rent-based leases or in-kind fee arrangements may be considered for Zylstra Lake Preserve. In-kind arrangements are non-cash options that could entail leaving some portion of the harvest for wildlife or providing a stewardship service such as maintaining open areas, riparian zones or trails. In general, future farming opportunities on the Preserve will practice conservation-based methods, seek to protect the property's agricultural resources in perpetuity and aim to maximize benefits to the island community.

#### Summary of proposed Agricultural Activities:

- Continue negotiation and development of agreements for interim Ag activities
- Control noxious weeds and improve pasture forage
- Further assess dams and clarify water rights for irrigation potential
- Install, replace, and remove fences to protect fields, reduce hazards and reflect accurate property boundaries
- Improve soil health
- Establish a collaborative partnership (CART) to assess future Ag opportunities

### **E. Public Access Overview and Objectives**

Another component of the Land Bank's mandate is to preserve areas with low-intensity recreational value. A majority of the Land Bank's fee-owned preserves feature trails as well as and opportunities to picnic and observe wildlife. Overall, recreational activities are designed to minimize effects on a preserve's other conservation values as well its neighboring communities.

Early on, islanders expressed two primary interests for the conservation of Zylstra Lake Preserve. They sought to protect its open space and ecological values from a 28-home subdivision, and they envisioned using the large lake for swimming, boating and fishing. The Land Bank and the San Juan Preservation Trust applied for both conservation and recreation-based funding to support acquisition of the property. As previously described,

the proposal to the U.S. Fish and Wildlife emphasized the property's freshwater, wetlands and wildlife. The grant proposal to the State's Recreation and Conservation Office (RCO) focused heavily on the public's stated interests for water access. Remarkably, both grants were awarded. But subsequent assessments, of public sentiment and water quality, revealed numerous challenges and concerns with accepting the RCO grant, adhering to its requirements and implementing water-based recreation.

Post-acquisition, members of the public, which included neighbors of the Preserve, shared apprehension that extensive recreational development, such as a swim beach and boat launch, would threaten both the Preserve's natural resources and the area's sense of peace. Other individuals and community organizations expressed strong interest in preserving and utilizing the property's agricultural resources. This public input, combined with the awareness that the water quality of the upper lake presented threats to human health and safety, led to the decision to decline the RCO grant.

This decision has reduced the funds available to develop recreational opportunities on the Preserve. It also has necessitated that more time be taken to re-evaluate long term management objectives. Still, the Land Bank acknowledges that the community wants to gain access to the Zylstra Lake Preserve in the near-term; and this section of the plan shares the Land Bank's intent to open the Preserve for limited public use. It outlines regulations and site development plans for the initial phase of public access. It also provides more information about impediments related to open water access and explores potential future recreational uses of the Preserve. In sum, the Land Bank's goal for interim public access is to provide a pedestrian trail along select portions of the Preserve. The proposed short-term objectives for supporting public access include: developing a parking area, assessing a failing culvert, adding trail structures to enhance wetland crossing areas, and installing signage and fences. An overview of the public access proposal is provided in Figure 2.

The recreational activities and site improvements described below have been evaluated by the Land Bank and the Department of Ecology in the context of the grant award and determined to be of negligible impacts to the Preserve's conservation values. They have been also been reviewed by the U.S. Fish and Wildlife Service for concurrence. The Land Bank will continue to make every effort to minimize development, monitor for compliance and protect the ecology of the Preserve.

## **Recreation**

The initial phase of public access entails developing a parking area and trailhead at the Preserve's entrance off of San Juan Valley Road. The design for the parking area is simple. A graveled pad with the ability to hold up to ten vehicles will be constructed in an already

disturbed area. Concerted efforts will be made to retain the trees and shrubbery currently on site as they partially conceal the parking lot from the main road. Additional native plantings will be considered in order to promote shade and additional screening.

A signed trailhead will be located at the west end of the parking lot. The pedestrian path will begin here. The trail will follow a rudimentary farm road along the northern and western boundary of the Preserve and then veer off of the road and onto a cleared path. This footpath will lead visitors up onto a ridge near the southwest corner of the upper lake and provide scenic overlooks. In the short-term, the trail will loop around the ridge and recreationalists will return to the parking area by the same route. This out-and-back trail will extend for two miles and be the initial recreational opportunity provided.

However, it is anticipated that safety concerns related to the upper dam, which prohibit further access, will be resolved within the first year of opening. At that point, public access will be expanded to include a trail along the eastern edge of the upper lake. This extension of the trail will again follow portions of an already existing road. It will provide visitors with a three-mile loop around the northern portion of the Preserve, seasonally. Access to this eastern portion of the Preserve will only be allowed from April through September, in order to protect overwintering waterfowl from repeated disturbance. Dogs on trails will only be allowed during this seasonal access as well.

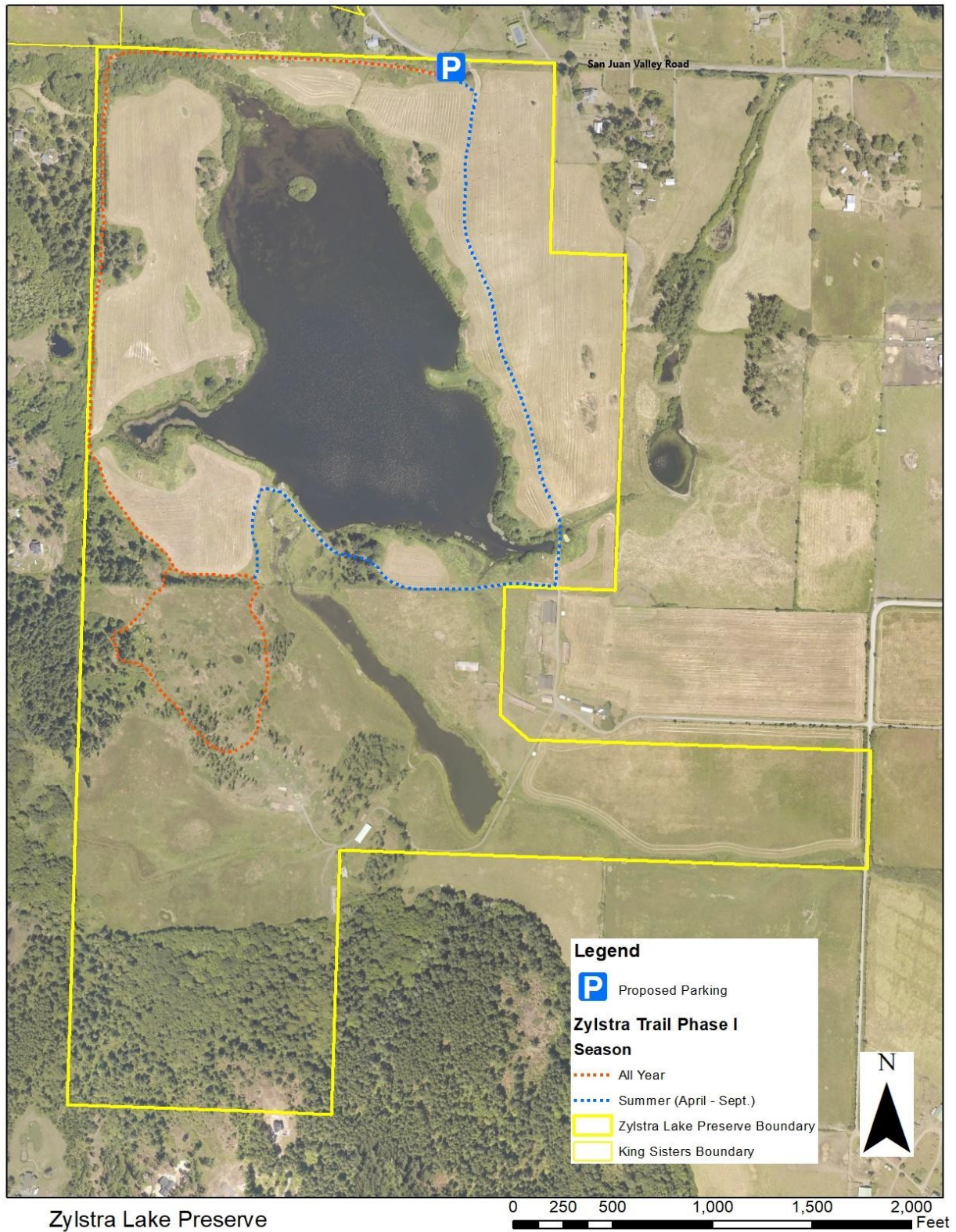
Once safety concerns associated with the upper dam are resolved, fishing from the upper dam's earthen bank will be open April through September. At this time, no permanent toilets or other facilities are proposed. Patterns of use will be recorded and assessed during the interim period to assure compliance with regulations and determine long-term needs for the Preserve. If use levels are high, or to facilitate longer stays, a temporary port-a-potty may be installed at the trailhead. Routine maintenance for public access will include mowing segments of pedestrian path in order to retain it for passage, picking up litter, reviewing posted signage and other tasks as needed. Land Bank staff, volunteers and contractors will perform this work.

### **Signage**

Signage and contact from Land Bank staff and volunteers is the primary method of educating visitors about regulations. Signs are installed on preserves to inform visitors about the Land Bank's rules and restrictions, and to protect neighbor privacy and natural resources. As a general guideline, the Land Bank aims to keep signage to a minimum. Discreet signage planned for Zylstra Lake Preserve will educate visitors about regulations and include ecological rationale for the seasonal closure.



**Figure 2. Zylstra Recreation Proposal**



## Restrictions

Standard Land Bank restrictions will apply to the Zylstra Lake Preserve. Dogs will be required to remain on a leash. No camping, campfires, drones or commercial uses will be permitted. The County's Leave No Trace principles will be followed. A complete list of Land Bank restrictions is provided in Appendix C. When necessary, enforcement may be carried out by the San Juan County Sheriff's Office.

Additional restrictions in effect during the Zylstra Lake Preserve's interim access period include:

- No water access
- Seasonal trail closure (October – March)
- Seasonal dog use (April – September)
- Pedestrian use only

### **Outreach, Education and Research**

Interpretive programs may be organized by Land Bank and San Juan Preservation Trust staff or in collaboration with outside groups or experts. Where appropriate, the Land Bank may collaborate with local organizations, schools, universities and scientists to increase or disseminate knowledge of the Preserve's ecological resources. Educational and research activities will be subject to review, conducted on a permission-only basis and limited in size or duration.

### **Volunteers**

The Land Bank engages with volunteer monitors on many of its preserves. Volunteer monitors coordinate with Land Bank staff to visit a preserve regularly, observe its conditions, and note the level of use. They may also engage in routine maintenance activities, such as invasive species control and visitor education. The Land Bank will collaborate with the San Juan Preservation Trust to further engage volunteer monitors at Zylstra Lake Preserve.

### **Future Access Interests**

The Land Bank's ongoing planning process is expected to develop and refine public access objectives. To date, the community has expressed interest in a multitude of other opportunities such as: multi-use trails to accommodate horses and bicycles, open water access for non-motorized watercrafts, fishing and hunting. These activities are described in more detail below. Prior to permitting any other recreational uses of the Preserve, the Land Bank will complete feasibility assessments in order to determine any potential agricultural and ecological resource impacts. Additionally, the Land Bank will continue to evaluate potential uses with regards to the primary purpose as required by the grant and work

closely with its partner organizations and the public before making any final decisions related to long-term management.

### Trails

There is interest in opening trail use to equestrians and bicyclists and extending trails to surrounding neighborhoods and other public preserves. The Land Bank will look for opportunities and partnerships to connect the trail on Zylstra Lake Preserve to other trails beyond its boundaries. Potential future linkages to the north could include the King Sisters Preserve trail and the Ihiya Biological Reserve trail. Additionally, the SJI Trails Committee is currently exploring the feasibility of (re)creating the [Old Military Road Trail](#), which may have passed through the Zylstra Lake Preserve.

### Open Water Access

Access to open freshwater is a unique recreational opportunity on the island. Unfortunately, the water quality of the upper lake poses numerous health and safety concerns. Its shallow waters, though undeniably scenic, possess nutrients, bacteria and dense vegetation.

As previously reported, phosphorous, fecal coliform bacteria and blue-green algae all occur in the lake. Toxic algae blooms present the greatest danger. The conditions that trigger an algal bloom are not well understood. This makes them difficult to predict. Blooms can occur rapidly -- sometimes with the span of a few hours -- and develop lethal conditions for people and their pets. This harmful algae can also accumulate in fish and make them potentially unsafe for consumption. Additional phosphorus, beyond what was measured in the water samples, is presumed to exist in sediments at the bottom of the lake. Partial mixing of the water column, through activities like swimming and paddling, could elevate levels and lead to more algal blooms. A drier, warmer climate could also exacerbate these conditions; shallow, warm and stagnant water promotes plant and algae growth.

Other potential issues relate to “duck itch,” an irritation to the skin caused by parasites and the entanglement of boats or swimmers by the thick aquatic vegetation. Finally, much also remains unknown about the condition of the upper dam’s infrastructure. Recent flooding suggests the dam is not suited to impound the current volume of water withheld.

Drawdown of the lake to align with State dam regulations, irrigate agricultural operations and potentially provide in-stream flow to False Bay Creek, adds complexity to long-term management for open water access. Still, non-motorized boat access, such as hand-launching kayaks, will remain a consideration. During the interim period, the Land Bank

will work to determine monitoring protocols for algae and gain clarity on the integrity of the dams.

### Fishing

Bass fishing is of interest to the community and deemed compatible with Preserve goals. However, bank fishing will be initially prohibited because of safety issues. It is expected that these issues will be resolved during the interim period and that fishing will then be allowed from the upper dam from April through September. Fish consumption will be discouraged. Additional access for fishing, including using human-powered, non-motorized watercraft, will be explored as an option for long-term management.

### Wildlife Viewing

A viewing blind is under consideration in order to enhance wildlife observation. It would be a small, three-side structure located on a bluff near the northeast corner of upper lake.

### Hunting

The unnaturally high population densities of Black-tailed deer in the County has had a series of negative effects. Excessive herbivory disrupts forest succession as well as flowering and seed production which, in turn, limits food resources for insects and birds. Researchers and wildlife biologists have recommended control of deer populations both for conservation purposes and for the health of the animals themselves.<sup>23</sup> Currently, the Land Bank allows hunting on the Lopez Hill and Mount Grant Preserves. This activity may be considered for Zylstra Lake Preserve. However, the Land Bank will seek further public input before any decisions are made.

### Summary of proposed Public Access Activities:

- Develop a graveled 10-car parking area
- Construct fencing to delineate public access areas
- Install signage relevant to rules and site interpretation
- Explore greater access opportunities
- Manage failing culvert and dam infrastructure
- Develop trail crossings in wet areas

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<sup>23</sup> Arcese, 2012. Milner, 2018.

## F. Cost Projection

This cost projection is intended as a financial planning tool and is not a commitment of resources. It includes separate cost estimates for general operations and for one-time capital expenditures. All figures are approximate. Actual expenditures will be reviewed and revised during the Land Bank's budgeting process.

To date, the Land Bank's interim expenditures for Zylstra Lake Preserve (February 2018 – May 2020) have totaled \$90,646.08. This does not include staff time. Currently, there are five stewardship staff members working on this project.

**Table 1. Two-year cost projection** (for planning purposes, only)

Year	General Operations <sup>24</sup>		Capital Projects <sup>25</sup>		Subtotal
2020	\$35,000	General stewardship, maintenance and monitoring.	\$57,000	Parking lot construction; initial trail construction; signage and fencing.	\$92,000
2021	\$30,000	Riparian restoration planning; general stewardship, maintenance and monitoring.	\$80,000	Culvert remediation; dam assessments and compliance measures; soil health amendments.	\$110,000
2022	\$30,000	General stewardship, maintenance and monitoring.	\$48,000	Wildlife blind; trail improvements; dam access; interpretive signage. Soil health amendments.	\$78,000
Total					\$280,000

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<sup>24</sup> Recurring, non-capital improvement operating expenses such as monitoring and maintenance.

<sup>25</sup> One-time capital expenses.

## G. Planning Process Overview

To ensure that this document reflects the perspectives of both the broad public and key stakeholders regarding the use and management of Zylstra Lake Preserve, the Land Bank provided information and sought input in a variety of ways. These are summarized in the following table. As the Land Bank continues to develop long-term plans for the Preserve, continued efforts will be made to share information and seek public input.

Action	Completed (Planned)
Public Hearing and LB Commission approval of initial interim plan	December 2016
Public Open House	June 2018
Public Open House	June, Sept 2019
Public Scoping Meeting	November 2019
Review of Interim Public Access with Ecology and USFWS	May, July 2020
Public Update and LB Commission Approval of Revised Interim Goals	(September 2020)
Opening of Zylstra Lake Preserve for Interim Public Access	(September 2020)
Formation of Conservation Ag Resource Team (CART)	(January 2021)
LB Commission review of Draft Stewardship and Management Plan	(October 2021)
CART–Zylstra Committee review of Draft Stewardship and Management Plan	(December 2021)
Public review of Draft Stewardship and Management Plan	(February 2022)
LB Commission adoption of Final Stewardship and Management Plan	(July 2022)



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Additional information about Zylstra Lake Preserve will be made available upon request. Supporting digital documents are hyperlinked when possible.

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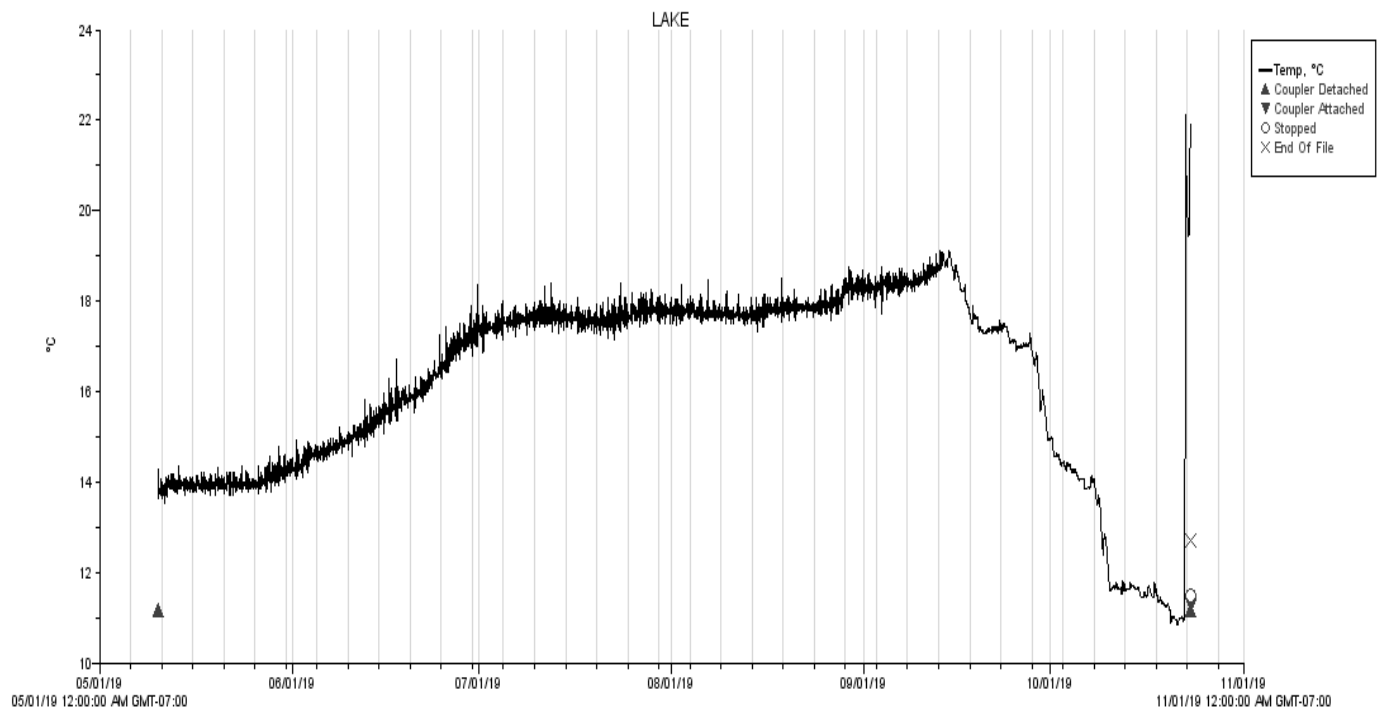
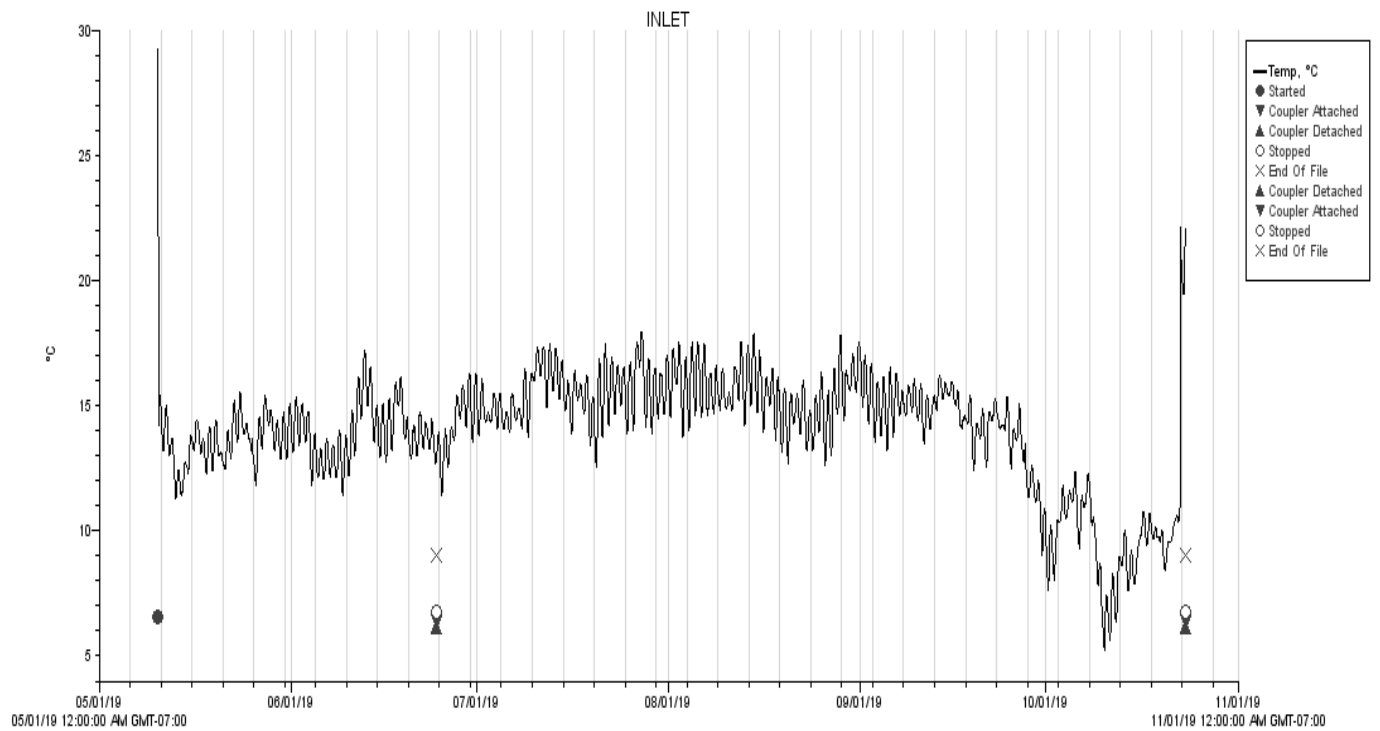
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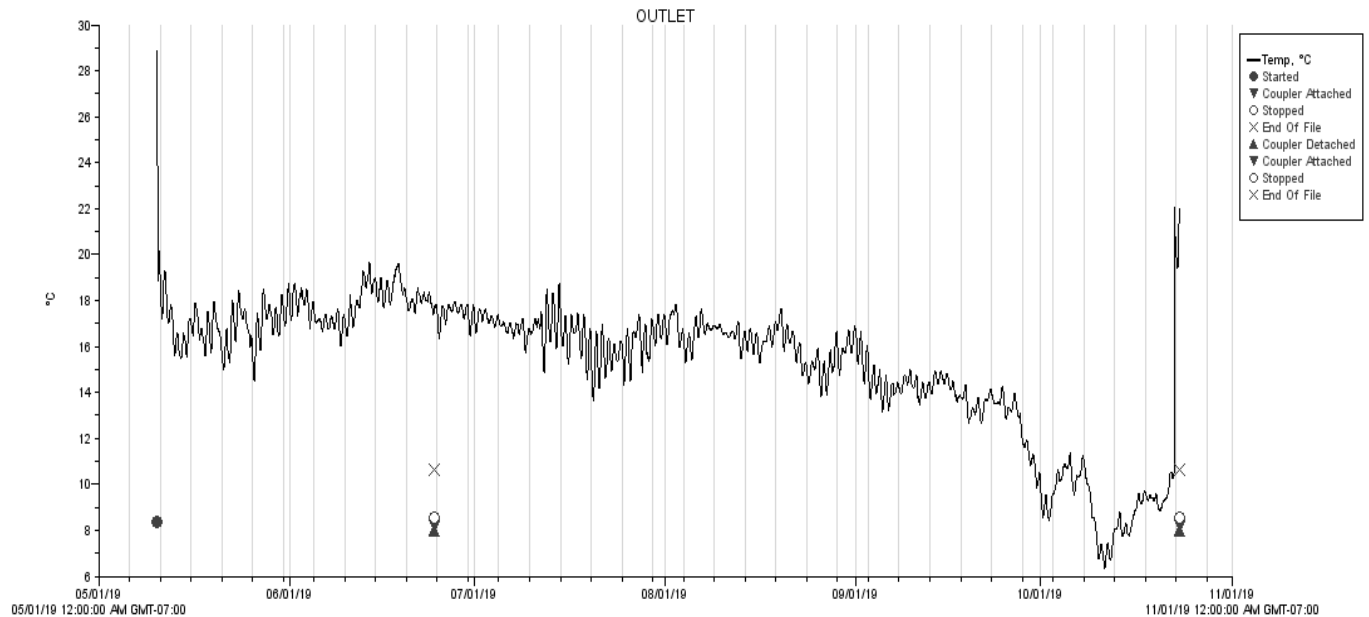
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## Appendix A. Water Temperatures





## Appendix B. Priority Habitats and Species

The Washington Department of Fish and Wildlife maintains a list of Priority Habitats and Species for each region of the state. Some listings are made based on ecological significance, others because of their importance as game animals. As defined in the current state Priority Habitats and Species List (2008, updated June 2016), three priority habitats, one habitat feature, and fifteen species have been identified to be present at Zylstra Lake Preserve.

### *Habitats*

Fresh Water Wetlands and Fresh Deepwater  
Instream  
Westside Prairie/Herbaceous Balds

### *Habitat Features*

Snags and logs

### *Species*

#### Fish

Chinook Salmon\*  
Coho Salmon\*  
Chum Salmon\*  
Sea-run Cuthroat Trout\*

## Birds

Pileated Woodpecker  
Bald eagle  
Band –tailed Pigeon  
Great Blue Heron  
Cavity nesting ducks (Wood Duck, Barrow’s Goldeneye, Common Goldeneye, Bufflehead)  
Trumpeter Swan  
Waterfowl Concentrations  
Peregrine Falcon

## Mammals

Columbian black-tailed deer\*\*

\*Surveys by WDFW biologists and other organizations have identified these fish species as juveniles or adults within False Bay Creek system. Presence on the preserve is not known.

\*\*Black-tailed deer are abundant and thriving in the San Juans and are not considered a priority species in the context of Land Bank management of this preserve.

## **Appendix C. Rules and Use Restrictions**

An enforcement ordinance governing activity on Land Bank preserves was adopted by the San Juan County Council on August 25, 2009. When necessary, enforcement actions may be carried out through the San Juan County Sheriff’s office.

- Daytime use only
- Dog on leash
- No overnight parking
- No camping
- No fires
- No vehicles
- No hunting
- No launching or landing of UAV (drones and similar devices) except on a permission-only basis
- No commercial use
- No collection of botanical, zoological, geologic or other specimens except on a permission-only basis for scientific or educational purposes