

# **Erdman Conservation Area**

1625 Main St, Lynden WA 98264

## **Stewardship Plan**

**October 2021**



## **1. Introduction**

The Erdmann Conservation Area Stewardship Plan begins to establish management, maintenance, and monitoring guidelines for the property which is being protected through a conservation easement.

### **a. Background**

The approximate  $\frac{3}{4}$  acre property (made up of 2 separate parcels) was purchased by the City in 2021 to add to the City's Pepin Creek Relocation Project infrastructure. Pepin Creek currently flows through the property twice as it encompasses a tight u-shaped bend in the creek. This property will protect Pepin Creek and its buffer downstream of Main Street before it rapidly descends towards the confluence with Fishtrap Creek.

The two Erdmann parcels directly abut the city owned parcels to the west (~ 2 acres). These properties combined give the city the appropriate space to place the new bridge over Main Street, to regrade and enhance the existing stream channel, and provide a location for a future Pepin Creek Trail connection.

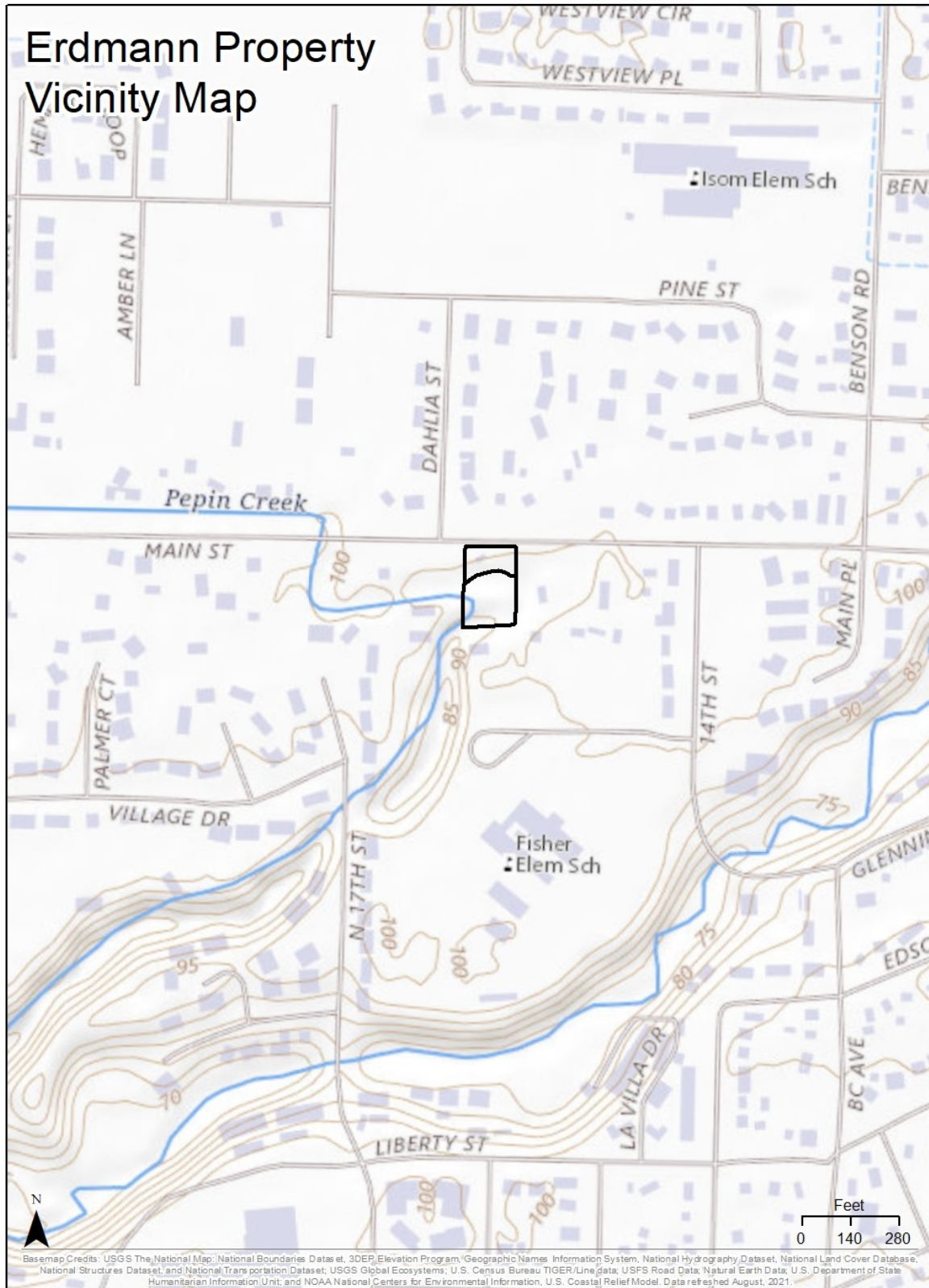
### **b. Land Use History**

The single-family residence was built on the northern parcel in 1930. The northern parcel also contains two small accessory structures – construction date unknown. All are within 50 ft of the creek edge. The southern parcel contains another accessory structure. All the buildings on the two parcels are in disrepair and not usable or occupiable. The driveway along the east side of the 2 parcels accesses a separate parcel (not included in this Stewardship Plan), which contains a single-family residence built in 1987.

Approximately, 300 ft of Pepin Creek divides the two Erdmann parcels in 2 locations. The stream flows east to west along the boundary of the 2 parcels. Just across the eastern property line the stream makes a tight u-shaped bend and crosses back across the southern parcel on its course to the Fishtrap Creek confluence. Pepin Creek has been historically modified and has likely been channelized in this location. The channel is deep and grades downward dramatically. The stream bed contains large remnants of concrete sidewalk which was placed here when Main Street was upgraded in the 1980's.

The property has been neglected. As stated above, the buildings are deteriorating and the property, particularly the forested southern parcel, is mostly overrun by invasive plants (blackberry, English Ivy).

Figure 1. Vicinity Map – Erdmann Property, Lynden WA



## 2. Purpose – Landowner’s Goals

The City of Lynden acquired the Erdmann property with three goals.

- 1) *To increase the City property infrastructure available to alleviate the downstream impacts (south of Main St) of the larger scale Pepin Creek Relocation Project.*
- 2) *To protect and allow for the ecological enhancement of the stream and its buffer in this location.*
- 3) *To accommodate the planned Pepin Creek Trail through this area and provide a trail connection to the Jim Kaemingk Sr Trail.*

## 3. Relationship to other actions and plans

*Pepin Creek Subarea (PCSA) Plan:* While this property is not within the identified PCSA, the creek relocation project recognized improvements on this property as necessary for the future residential development of the subarea. This property is just east of the proposed relocated Pepin Creek and the new bridge at Main Street over that crossing. The stream channel under the new bridge will connect to the existing channel on the City owned adjacent parcel (west) of the Erdmann property.

*City of Lynden Park and Trail Master Plan:* The master plan indicates that the Pepin Creek trail will connect to the Jim Kaemingk Sr Trail south of this property. The Erdmann property will accommodate this key connection to the Pepin Creek Trail.

## 4. Current and Desired Conditions

### a. Fish use and habitat

Approximately 300 ft of Pepin Creek runs through the Erdmann property. Pepin Creek provides freshwater habitat for Washington State Department of Fish and Wildlife priority fish species and habitat. Chum (*Oncorhynchus keta*), fall Chinook (*Oncorhynchus tshawytscha*), bull trout (*Salvelinus malma*), winter steelhead (*Oncorhynchus mykiss*), cutthroat (*Oncorhynchus clarki*), and coho (*Oncorhynchus kisutch*) are documented to use this stream.

Pepin Creek has been highly modified for agriculture use and associated drainage north of this property. It provides some rearing and spawning grounds, but fish are more likely to move through this area on the way to other spawning grounds throughout the system. South of Main Street, including through this property, the stream is actively downcutting on its path to the confluence with Fishtrap Creek.

Desired Conditions

Regrade and relocate the channel through this property. Restore natural streambank, remove concrete sidewalk pieces, and enhance spawning gravel locations throughout the system. See Exhibit 1 for preliminary regrade concept.

**b. Riparian**

The riparian zone of Pepin Creek through this property is vegetated on the south parcel. The ground cover is dominated by invasive species, particularly English Ivy which is migrating up existing tree trunks wherever possible. The riparian zone on the north parcel contains insufficient cover, is characterized by a few scattered trees, unmaintained lawn, and the accessory structures to the house.

Desired Conditions

Care for the existing large healthy trees. Remove buildings from the parcels. Aggressive control of invasive plant species.

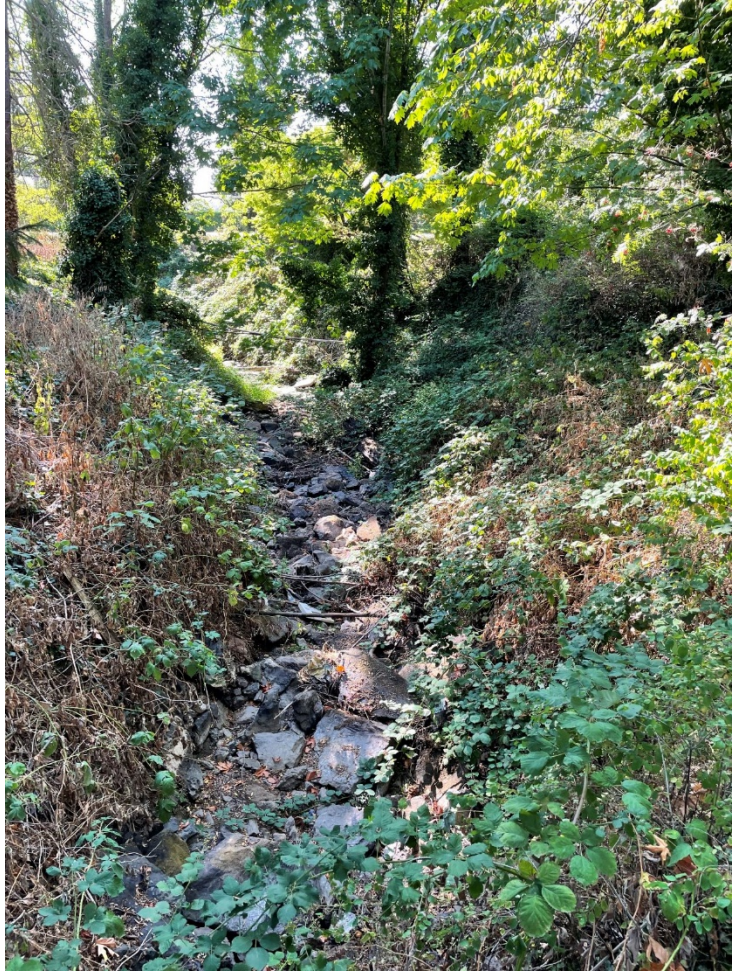


### **c. Hydrologic**

The property is dominated by the presence of the Pepin Creek channel. There are no wetlands on the property. Pepin Creek is fed by groundwater and surface water runoff throughout the watershed.

#### **Desired Conditions**

Protect the streambanks from erosion and restore natural hydrogeomorphic processes where feasible.



### **d. Soils and Soil Stability**

The soils on this property are identified as Laxton loam, which are considered moderately well drained. Pepin Creek is in a fairly deep channel on this property and is actively downcutting. This can result in erosive forces on the steep slopes of the channel.

#### **Desired Conditions**

Enhance vegetative cover on the streambanks. Direct any future public use onto appropriate trails and pathways suitable for that use.

### **e. Upland**

The upland portion of the Erdmann property contains the deteriorating house and accessory structures. There is also a hardened (not paved) driveway and parking area.

Desired Conditions

Appropriately remove the structures, finalize the future use of the property, and restore/enhance the existing stream buffer with native plantings and invasive species control.



**f. Public Use**

The property does not currently accommodate public use. The dilapidated structures pose a safety threat at this point.

Desired Conditions

Further evaluate the relationship of this property to the location of the future Pepin Creek trail. Determine trail location through this property as the channel redesign is finalized.

**g. Cultural and Historic Resources**

A Cultural Resources Assessment of the larger Pepin Creek Relocation Project was conducted by Garth Baldwin in 2013. While this property is considered to have a moderate

to high risk of containing cultural resources, no documented sites are located here. Any future ground disturbing activity (channel modification, trail construction, etc.) may require Inadvertent Discovery Protocol to be established for that activity.

The house is more than 90 years old. It has likely been modified over the years and is in very poor condition. The accessory structures on the property are in need of demolition.

Desired Conditions

Establish Inadvertent Discovery Protocol as necessary for future ground disturbing activity.

Remove structures to accommodate stream restoration and enhancement activity.

**5. Maintenance and Monitoring Schedule**

<b>Activity</b>	<b>Timing</b>	<b>Effectiveness Review</b>
Establish the defined uses of the property	2021-2022	Review and revise as needed
Channel regrade design and establishment	2022-2023	Review and revise as needed
Native Planting and Invasive Species Control	After channel regrade	Ongoing plant maintenance until establishment and invasive plant species control in perpetuity
Public use plan – determine how this property might accommodate recreational uses (Pepin Creek Trail)	2022-ongoing	Once established, ongoing maintenance will be required.

**6. Adaptive Management Plan**

Once the channel is regraded and moved, ongoing management of the system may be required.

**7. Roles, Responsibilities, and Funding**

The Lynden Public Works Department is responsible for the infrastructure development on this property (building removal, channel regrade, trail improvements).

The Lynden Parks Department will be responsible for the maintenance of future recreational improvements.



## 8. Constraints and Uncertainties

The long-term care and management of this property will require balancing public use and desires with careful ecological management.

Securing funding and allocating the appropriate resources for this work will be substantial.

## 9. Attachments

- a. **Vicinity Map:** Incorporated above
- b. **Site Plan:** Incorporated above and Exhibit 1 below
- c. **Photos:** Incorporated above
- d. **Permit requirements:**
  - Demolition permit: for house and structure removal and asbestos abatement.
  - Future infrastructure development may need permits (HPA, Critical Area review) that will be identified at that time.
- e. **Monitoring Protocols:**

Future native plantings once stream regrade occurs - annual survival counts and coverage until plantings established (~ 5 years) and invasive species controlled.

# Exhibit 1: Preliminary Shoreline Stabilization and Channel Regrade

