City of Lynden

SEPA Environmental Checklist Form

SEPA # Date Received:

Receipt #

A. BACKGROUND

1. Name of proposed project, if applicable:

   Pepin Creek Relocation Project

2. Name of applicant:

   City of Lynden

3. Address and phone number of applicant and contact person:

   Steve Banham
   300 4th Street
   Lynden, WA 98264
   (360)354-3446

4. Date checklist prepared:

   March 11, 2022

5. Agency requesting checklist:

   City of Lynden

6. Proposed timing of schedule (include phasing, if applicable):

   This a multi-phased effort that will likely span the years from 2022- 2030

   City staff have identified the following phases directly related to the creek relocation (see attached exhibit):

   - Main Street Bridge and Channel: Construction planned for 2023
   - Pine Street Bridge and Channel (replaces existing road)
   - Pepin Creek Main Stem (north-south from Main Street to bend)
   - Pepin East/West Creek Corridor (from bend to Double Ditch Road)
   - Pepin Creek Channel Improvements Downstream of Main Street (shoreline stabilization and re-channelization)
   - Double Ditch Road Cross-Culvert (under Double Ditch Road) (Last)

7. Do you have any plans for future additions, expansion, or further activity related to or connected with this proposal?

   Improvements to Double Ditch Road are planned as a separate project following the realignment of Pepin Creek out of the roadside ditch. Additional drainage

improvements to Benson Road are also anticipated. A new collector street "Pepin Parkway" is planned to be constructed to connect Benson Road and Double Ditch Road which would include a bridge/box culvert crossing Pepin Creek south of the east/west creek corridor.

8. List any environmental information you know about that has been prepared, or will be prepared, directly related to this proposal.

- **Biological Assessment**
- **JARPA Application**
- **Cultural Resources Survey**
- **Restoration and Mitigation Plans**
- **Buffer Exhibit and Ecology Buffer Exception Form**

9. Do you know whether applications are pending for governmental approvals of other proposals directly affecting the property covered by your proposal? If yes, explain.

WSDOT replacement of the Double Ditch Culverts on SR-546 (Badger Road)

10. List any government approvals or permits that will be needed for your proposal, if known.

- **USACE Section 404 Permit**
- **WDFW Hydraulic Project Approval**
- **Approval of Annexation within the Project Area**

11. Give brief, complete description or your proposal, including the proposed uses and the size of the project and site.

The Pepin Creek Relocation Project is a key step in the development of the City of Lynden's Pepin Creek Subarea. This project will construct a new stream channel (~ 5,050 linear ft) for the existing fish-bearing Pepin Creek which currently flows in two ditches directly adjacent to Double Ditch Road. This current alignment is unsafe for drivers and pedestrians and provides minimal riparian and habitat value for fish.

The new Pepin Creek channel will increase stream capacity for higher flows and vastly improve fish habitat with a low flow meandering channel with riparian plantings and habitat features. Bank protection will be installed as necessary and in accordance with WDFW requirements along the bank of the channel to protect the existing properties. Furthermore, the relocation away from Double Ditch Road will allow the City to (at a future time) conduct the necessary improvements to that substandard street. As identified in previous question 6, this work will occur in numerous phases.

The project will also provide resilience and flood mitigation by adding capacity to convey the significant amount of stormwater more effectively in this watershed. This watershed crosses the international border with Canada and major winter rainfall events have historically resulted in significant flooding downstream in Lynden. This flooding impact is expected to increase in the future with Supreme Court mandated installation of larger culvert by WSDOT under Badger Road (SR-546) to improve fish passage. Larger culverts will release more water into Lynden and increase the potential for flooding.

Additionally, this project will construct two bridges. One bridge will be at Pine Street where the new channel will cross under the existing Pine Street. The second will be a new bridge on existing Main Street where the new Pepin Creek channel will flow south and then connect to

the existing Pepin Creek channel. A future public trail is also planned along one side of the newly realigned Creek to provide bike and pedestrian access to Isom Elementary School and for public recreation purposes.

Finally, on land purchased by the City directly south of Main St, the existing Pepin Creek will be regraded and improved to provide increased stream capacity and beneficial stream habitat before it continues downstream to the confluence with Fishtrap Creek. Large woody material will be placed as single logs or small log jams along the new channel. Riprap will be placed at the toe of the valley slope. Pool and riffle features will be constructed along the new channel.

12. Location of the proposal. Give sufficient information for a person to understand the precise location of the proposed project, including a street address, if any, and section, township, and range, if known.

The project is bounded by Double Ditch Road (west), Benson Road (east), Badger Road (north), and the existing Pepin Creek south of Main Street (south) and located in Section 18 and 19, Township 40N, Range 3E.

See attached vicinity map.

B. ENVIRONMENTAL ELEMENTS

1. Earth

a. General description of the site (circle one): (Flat,) rolling, hilly, steep slopes, other.

b. What is the steepest slope on the site (approximate percent slope)?

The majority of the project area is flat and much of it is currently agricultural land. South of Main Street, the slopes adjacent to the existing creek channel and developed land are steep with some many at 100%.

c. What general types of soils are found on the site?

Soils in the area are mapped as Edmonds-Woodlyn loams, Hale silt loam, and Laxton loam.

d. Are there surface indications or history of unstable soils in the immediate vicinity? If so, describe.

Bank stabilization has occurred along Pepin Creek south of Main Street and there is ongoing erosion on some unstable banks.

e. Describe the purpose, type, and approximate quantities of any filling or grading proposed. Indicate source of fill.

Approximately 185,500 cubic yards (CY) will be excavated for the construction of the new Pepin Creek channel. In addition, construction of the Main Street and Pine Street Bridges will require approximately 4,000 CY of material to be excavated. 10,500 CY of streambed gravel will be imported as substrate in the new alignment.

The existing channel/ditch on both sides of Double Ditch Road is to be replaced with as a piped non-fish bearing stormwater conveyance for

existing adjacent developments once the Creek has been realigned. This project will be detailed as part of the widening of Double Ditch Road.

f. Could erosion occur as a result of clearing, construction, or use? If so, generally describe.

Erosion may occur during construction due to excavation activities. However, approved stormwater BMP's will be in place to prevent and minimize any erosions that may occur as a result of construction.

g. About what percent of the site will be covered with impervious surfaces after project completion?

No additional impervious surface will be added to the project site (Pine and Main Street bridges replace existing asphalt) and disturbed existing impervious surfaces will be replaced in kind.

h. Proposed measures to reduce or control erosion, or other impacts to the earth, if any:

Proposed measures to reduce or control erosion and other impacts to the earth will be discussed and incorporated in the Temporary Erosion and Sediment Control (TESC) Plans associated with each project phase.

2. Air

a. What types of emissions to the air would result from the proposal during construction and when the project is completed. If any, generally describe and give approximate quantities.

Construction activities may temporarily generate small amounts of dust in the immediate vicinity of excavation, grading, etc.

b. Are there any off-site sources of emissions or odor that may affect your proposal? If so, generally describe.

There are no off-site sources of emissions that will affect the project.

c. Proposed measures to reduce or control emissions or other impacts to the air, if any.

Dust will be controlled with water if needed.

3. Water

a. Surface:

1. Is there any surface water body on or in the immediate vicinity of the site (including year-round and seasonal streams, lakes, ponds, wetlands)?

Pepin Creek currently flows through the project area within deep ditches on both sides of Double Ditch Road, through a cross-culvert under Double Ditch just north of Main Street, in a ditch along the north side of Main Street east of Double Ditch for approximately 2000 feet, through a culvert under Main Street, and in a channel south of Main Street. One small wetland, Wetland A, was identified in the agricultural field.

2. Will the project require any work over, in, or adjacent to the described waters?

The purpose of the project is to realign Pepin Creek away from Double

Ditch Road. Work will be required within Double Ditch at both the north and south ends to connect the new channel and redirect water flows. A portion of channel south of Main Street will also be realigned. The existing channel will be separated to exclude fish but will remain for stormwater conveyance. Wetland A will be eliminated during construction of the channel.

3. Estimate the amount of fill and dredge material that would be placed in or removed from surface water or wetlands and indicate the area of the site that would be affected. Indicate the source of fill material.

Up to 4,000 CY of material will be placed within the existing channel of Pepin Creek south of Main Street. Double Ditch will be filled south of the new culvert crossing in order to plug the ditch and reroute flows into the new channel. This crossing is approximately 1500 feet north of Main Street. This fill will require approximately 1,000 CY. About 750 CY of material will be removed from Wetland A.

4. Will the proposal require surface water withdrawals or diversions? Give general description, purpose, and approximate quantities if known.

The channel and bridge construction are planned to be completed prior to the diverting of the current Pepin Creek. When the channel is connected to the existing creek downstream of Main Street, cofferdams will be use to divert water out of the in-water work area. A similar process will be used when constructing the cross culvert under Double Ditch Road. This will make excavation and work in Pepin Creek possible, while protecting fish and other wildlife in the creek during construction.

5. Does the proposal lie within the 100-year flood plain? If so, note the location on the site plan.

No

6. Does the proposal involve any discharges of waste materials to surface waters? If so, describe the types of waste and anticipated volume of discharge.

No

b. Ground:

1 Will ground water be withdrawn, or will water be discharged to ground water? Give general description, purpose and approximate quantities, if known.

There will be no known discharge to the ground water. Some withdrawal of ground water (dewatering) may be necessary in the deeper trench locations and bridges, but the quantity is unknown.

2 Describe waste material that will be discharged into the ground from septic tanks or other sources, if any (for example: Domestic sewage; industrial containing the following chemicals; agricultural; etc.). Describe the general size of the system, the number of such systems, the number of houses to be served, etc.

N/A

c. **Water Runoff** (including storm water):

1. Describe the source of runoff (including storm water) and method of collection and disposal, if any (includes quantities, if known). Where will this water flow? Will this water flow into other waters? If so, describe.

The project preserves the stormwater system capacity along Double Ditch Road for runoff from existing development inside the City by separating and redirecting the larger County and Canadian stormwater flows into the realigned Pepin Creek. By so doing, it serves to protect existing properties from overland flow during high water events.

No additional impervious surface will be created. Runoff from Double Ditch Road currently sheet flows into the adjacent ditch/ Pepin Creek. This project will not change those runoff conditions; however, ditch flows from properties to the north and Canada will be rerouted away from roadway thus improving stormwater performance within the area.

An emergency ditch was constructed as an interim flood control measure in a portion of the proposed channel length which collects Double Ditch flood water from surrounding agricultural fields. This interim ditch collects flood water in emergency circumstances and does not currently connect to any other surface water. The emergency ditch protects Benson Road storm drainage from these floods. The project replaces the interim ditch with the relocated Pepin Creek channel.

1. Could waste materials enter ground or surface waters? If so, generally describe.

No.

d. Proposed measures to reduce or control surface, ground, and runoff water impacts, if any.

Proposed BMPs for protection of the surface, ground, and runoff waters will be discussed and incorporated in the Temporary Erosion and Sediment Control (TESC) Plan.

4. **Plants**

a. Check or circle types of vegetation found on the site:

- ☑ deciduous tree: alder, maple, aspen, other:
- ☑ evergreen tree: fir, cedar, pine, other:
- ☑ shrubs
- ☑ grass
- ☑ pasture
- ☑ crop or grain
- ☐ wet soil plants: cattail, buttercup, bulrush, skunk cabbage, other: _____
- ☐ water plants: water lily, eel grass, milfoil, other: _____
- ☐ other types of vegetation:

b. What kind and amount of vegetation will be removed or altered?

Approximately 15 trees over 4 inches DBH are anticipated to be removed during the project, based on existing (2022) conditions. The alignment has been adjusted were possible to minimize the impact on exiting trees.

The existing vegetation along the Pepin Creek channel south of Main Street will be replaced with engineered woody debris to stabilize the shoreline and new planting for shade. The City acquisition of those properties and shoreline buffer will ensure that the areas with the new plantings are able to be established and remain viable. North of Main Street, landscaping shrubs and grass areas along the existing interim ditch and previously maintained lawns will also be removed and replace with native riparian vegetation alongside the new Pepin channel.

c. List threatened or endangered species known to be on or near the site.

None.

d. Proposed landscaping, use of native plants, or other measures to preserve or enhance vegetation on the site, if any.

Native trees and shrubs will be planted along the new creek channel to provide a vegetated buffer.

5. **Animals**

a. Circle any birds and animals that have been observed on or near the site, or are known to be on or near the site:

birds: hawk, heron, **eagle, songbirds**, other: _____

mammals: deer, bear, elk, beaver, other: _____

fish: bass, **salmon**, **trout**, herring, shellfish, other: _____

b. List any threatened or endangered species known to be on or near the site.

Steelhead, Bull trout, Chinook Salmon

c. Is the site part of a migration route? If so, explain.

The project area is part of the Pacific Flyway route for migratory birds. Salmon and trout in Pepin Creek also migrate through the project area to and from habitat upstream.

d. Proposed measures to preserve or enhance wildlife, if any.

The realignment of the channel will provide greatly improved habitat conditions within the Pepin Creek basin. Water quality in the basin will be improved as the new Pepin channel will be removed from direct runoff from Double Ditch Road (within City limits) and will run through the creation of planted buffers along the creek that provide additional water quality benefits.

All in-channel work in the waters of the existing system at both ends of the project will be conducted during the approved in-water work "fish window" required by the hydraulic permit. Construction will be isolated from any flowing water by cofferdams or other barriers. Additionally, any pumps used within the creek will have fish friendly screens installed.

The new channel will include the creation of more natural habitat with large woody debris, stream bed gravels and low-flow channel meanders.

Buffer creation will include the use of native plantings identified by the Washington State Department of Fish and Wildlife (WDFW), Army Corp of Engineers and other permitting agencies. The phased plantings along the creek channel will provide an opportunity for this vegetation to be established prior to use as an active stream corridor.

6. **Energy and Natural Resources**

a. What kinds of energy (electric, natural gas, oil, wood stove, solar) will be used to meet the completed project's energy needs? Described whether it will be used for heating, manufacturing, etc.

None.

b. Would your project affect the potential use of solar energy by adjacent properties?

Trees planted along the new stream corridor in the required stream buffer will eventually shade some areas.

c. What kinds of energy conservation features are included in the plans of this proposal? List other proposed measures to reduce or control energy impacts, if any.

None.

7. **Environmental Health**

a. Are there any environmental health hazards, including exposure to toxic chemicals, risk of fire and explosion, spill, or hazardous waste, that could occur as a result of this proposal? If so, describe.

1) Describe special emergency services that might be required.

None.

2) Proposed measure to reduce or control environmental health hazards, if any.

If contaminated soils or groundwater are encountered during construction, the Contractor will be required to contain, remove, and appropriately dispose of these hazards off-site in accordance with federal, state, and local regulations.

b. **Noise**

1. What types of noise exist in the area which may affect your project?

None.

2. What types and levels of noise would be created by or associated with the project on a short term or long-term basis? Indicate what hours noise would come from this site.

Short-term noise will be created during construction. Construction activities are anticipated to occur between the hours of 7:00am and 6:00pm, Monday through Friday. No long-term noise will be created by the project.

3. Proposed measures to reduce or control noise impacts, if any.

Short-term construction impacts will be minimized by limiting work to the hours listed above.

8. Land and Shoreline Use

a. What is the current use of the site and adjacent properties?

The site and adjacent properties include existing paved roadway with adjacent ditches, agricultural land, residences, vacant land, and Pepin Creek.

b. Has the site been use for agriculture?

The northern portion of the project area is currently used for agriculture.

c. Describe any structures on the site.

None.

d. Will any structures be demolished? If so, what?

None.

e. What is the current zoning classification of the site?

RM-PC Residential Multi-Family Pepin Creek

f. What is the current comprehensive plan designation of the site?

Residential, Low Density

g. If applicable, what is the current shoreline master program designation of the site?

N/A

h. Has any part of the site been classified as an "environmentally sensitive" area? If so, specify.

Pepin Creek is a Fish and Wildlife Conservation Area. Wetland A is also classified as environmentally sensitive.

i. Approximately how many people would reside or work in the completed project?

None

j. Proposed measures to avoid or reduce displacement impacts, if any.

N/A

k. Proposed measures to ensure the proposal is compatible with existing and projected land uses and plans, if any.

The realignment of Pepin Creek has been investigated by the City for quite some time to decrease flooding potential in existing developed areas. The City of Lynden Stormwater Management Plan was amended in April 2009 with a recommendation to realign Pepin Creek within the City UGA to the midpoint between Benson and Double Ditch Roads. Between 2019 and 2020, the City completed an in-depth study of the Pepin Creek Subarea Plan. The study was undertaken to investigate development in the sub-area and potential issues. The results of that study were incorporated as an amendment to the City of Lynden Comprehensive Plan adopted in March 2020. The revised subarea plan

was adopted in August 2021 which reflects the current proposed creek realignment sometimes referred to as "Pepin Lite".

9. Housing

a. Approximately how many units would be provided, if any?

None.

b. Approximately how many units, if any, would be eliminated?

None.

c. Proposed measures to reduce or control housing impacts, if any.

N/A

10. Aesthetics

a. What is the tallest height of any proposed structure(s), not including antennas; what is the principal exterior building material(s) proposed?

N/A

b. Proposed measures to reduce or control aesthetic impacts, if any.

None.

11. Light and Glare

a. What type of light or glare will the proposal produce? What time of day would it mainly occur?

None.

b. Could light or glare from the finished project be a safety hazard or interfere with views?

No.

c. What existing off-site sources of light or glare may affect your proposal?

None.

d. Proposed measures to reduce or control light and glare impacts, if any?

N/A

12. Recreation

a. What designated and informal recreational opportunities are in the immediate vicinity?

None.

b. Would the proposed project displace any existing recreational uses? If so, describe.

None.

c. Proposed measures to reduce or control impacts on recreation, including recreation opportunities to be provided by the project or applicant, if any.

Recreational and multi-modal trail accommodations are included in the channel design which includes the trail design. These facilities may be

constructed with the channel, or the areas identified and reserved for construction later. One of the goals of the Pepin Creek Sub-area plan being implemented by the relocation is to provide a corridor for a public use trail for recreational and other non-motorized transportation needs. The trail/facility system is expected to run the length of the new Pepin channel with connections for future development. The trail will be located be located in the buffer area.

13. Historic and Cultural Preservation

a. Are there any places or objects listed on, or proposed for national, state, or local preservation registers known to be on or next to the site? If so, generally describe.

No.

b. Proposed measures to reduce or control impacts, if any.

The project will include an Inadvertent Discovery Plan.

14. Transportation

a. Identify public streets and highways serving the site, and describe proposed access to the existing street system. Show on site plans, if any.

The site is adjacent to Double Ditch Road, Benson Roads, and Main Street.

b. Is the site currently served by public transit? If not, what is the approximate distance to the nearest transit stop?

The nearest transit stop is at the corner of Main Street and Double Ditch Road on WTA Route 26. Relocation of the creek will enable the improvement of Double Ditch Road to a complete arterial street with bike and pedestrian facilities. The street widening and pedestrian accommodations in this area will create a safer environment and improved access for users and transit drivers. The City will work with WTA to see if the developments in and around the new channel would merit a revised transit route.

c. How many parking spaces would the completed project have? How many would the project eliminate?

None.

d. Will the proposal require any new roads or streets, or improvements to existing roads or streets, not including driveways? If so, generally describe (indicate whether public or private).

Two bridges are required to redirect the new Pepin Creek channel away from Double Ditch Road to flow south and connect to the existing channel south of Main Street. These bridges will be located on Main Street and at Pine Street. Double Ditch Road is rebuilt south of the diversion of Pepin Creek. It will to be built to City arterial standards including multimodal facilities and stormwater facilities to address water quality and quantity standards. The project anticipates other future roads that will be built by development in the subarea. Multi-modal

accommodations will be made along the new Pepin Creek corridor to connect existing developments within the Pepin Creek sub-basin with the rest of the City transportation network. This will include multi-modal trails/paths constructed within the new channel buffers.

e. Will the project use (or occur in the immediate vicinity of water, rail, or air transportation? If so, generally describe.

N/A

f. How many vehicular trips per day would be generated by the completed project? If known, indicate when peak volumes would occur.

None.

g. Proposed measures to reduce or control transportation impacts, if any.

Long term, this project benefits the local and regional transportation network by providing safe routes during flooding conditions and improving Double Ditch Road to include pedestrian and multi-modal travel methods. The multi-modal trail system provides access to work and commercial businesses located at either end of the Pepin sub-basin.

Traffic control plans will be implemented during the phased construction to minimize transportation impacts. Phased construction will also help reduce traffic impacts.

15. Public Services

a. Would the project result in an increased need for public services (for example: fire or police protection, schools, health care, other)? If so, generally describe.

No.

b. Proposed measures to reduce or control direct impacts on public services, if any.

N/A

16. Utilities

a. Circle utilities currently available at this site: **Electricity, natural gas, water, refuse service, telephone, sanitary sewer**, other:

b. Describe the utilities that are proposed for the project, the utility providing the service, and the general construction activities on the site or in the immediate vicinity which might be needed.

N/A

C. SIGNATURE

The above answers are true and complete to the best of my knowledge. I understand that the lead agency is relying on them to make its decision.

Signature: . . . . . .

Date Submitted: . . . . . .

$300.00 SEPA FEE

D. SUPPLEMENTAL SHEET FOR NONPROJECT ACTIONS

(Do not use this sheet for project actions)

Because these questions are very general, it may be helpful to read them in conjunction with the list of the elements of the environment.

When answering these questions, be aware of the extent the proposal, or the types of activities likely to result from the proposal, would affect the item at a greater intensity or at a faster rate than if the proposal were not implemented. Respond briefly and in general terms.

1. How would the proposal be likely to increase discharge to water; emissions to air; production, storage, or release of toxic hazardous substances; or production of noise?

Proposed measures to avoid or reduce such increases are:

2. How would the proposal be likely to affect plants, animals, fish or marine life?

Proposed measures to protect or conserve plants, animals, fish, or marine life are:

3. How would the proposal be likely to deplete energy of natural resources?

Proposed measures to protect or conserve energy and natural resources are:

4. How would the proposal be likely to use or affect environmentally sensitive areas or areas designated (or eligible or under study) for governmental protection; such as parks, wilderness, wild and scenic rivers, threatened or endangered species habitat, historic or cultural sites, wetlands, floodplains, or prime farmlands?

5. How would the proposal be likely to affect land and shoreline use, including whether it would allow or encourage land or shoreline uses incompatible with existing plans?

Proposed measures to avoid or reduce shoreline and land use impacts are:

6. How would the proposal be likely to increase demands on transportation or public service utilities?

Proposed measures to reduce or respond to such demand(s) are:

7. Identify, if possible, whether the proposal may conflict with local, state, or federal laws or requirements for the protection of the environment.

Proposed measures to protect such resources or to avoid or reduce impacts are: