



City of Yelm

Fee	_____
Date Received	_____
By	_____
File No.	_____

Community Development Department **ENVIRONMENTAL CHECKLIST**

Instructions:

The State Environmental Policy Act (SEPA) requires all governmental agencies to consider the environmental impacts of a proposal before making decisions. The purpose of this checklist is to provide information to help identify impacts from your proposal, to reduce or avoid impacts from the proposal if it can be done, and to help the City decide whether an EIS is required. An environmental impact statement (EIS) must be prepared for any proposal with probable significant adverse impacts on environmental quality.

This environmental checklist asks you to describe some basic information about your proposal. The City will use this checklist to determine whether the environmental impacts of your proposal are significant and require preparation of an EIS. You must answer each question accurately, carefully and to the best of your knowledge. Answer the questions briefly, but give the best description you can. In most cases, you should be able to answer the questions from your own observations or project plans without the need for experts. If you do not know the answer, or if a question does not apply to your proposal, write "do not know" or "does not apply". Complete answers to the questions now may avoid delays later. If the space provided is too small, feel free to attach additional sheets.

Some questions ask about governmental regulations, such as zoning, shoreline, and landmark designations. Answer these questions if you can. If you have problems, the city staff can assist you.

The checklist questions apply to all parts of your proposal even if you plan to do them over a period of time or on different parcels of land. Attach any additional information that will help describe your proposal or its environmental effects. You may be asked to explain your answers or provide additional information for determining if there may be significant adverse impacts.

Nonproject Proposals Only:

Complete both the checklist (even though many questions may be answered "does not apply") and the **Supplemental Sheet for Nonproject Actions** (part D). For nonproject actions, the references in the checklist to the words "project," "applicant," and "property or site" should be read as "proposal," "proposer," and "affected geographic area," respectively.

**CITY OF YELM
ENVIRONMENTAL CHECKLIST**

CITY USE ONLY
FEE: \$150.00
DATE REC'D
BY:
FILE NO.

A. BACKGROUND

1. Name of proposed project, if any:

City of Yelm Water Rights Applications G2-29084, G2-29085, G2-29086

2. Name of applicant:

City of Yelm, Washington

3. Address, phone number and email address of applicant and of any other contact person:

**Shelly Badger, City Administrator
105 Yelm Avenue West
P.O. Box 479
Yelm, WA 98597**

4. Date checklist prepared:

September 26, 2008

5. Agency requesting checklist:

City of Yelm

6. Proposed timing or schedule (including phasing, if applicable):

Phase 1 (2010-2012) – 554 acre feet.

554 acre feet additional water added to the City's current portfolio of 952.27 acre feet (719.66 af withdrawn from downtown wells 1 & 2 and 232.61 af withdrawn from the golf course well). The new water would be withdrawn from 'well 1' in the new SW Yelm wellfield.

Phase 2 (2013-2017) – 388.34 acre feet.

Two new wells would be commissioned in the SW Yelm wellfield, pumping 554 acre feet each for a total withdrawal in the SW Yelm wellfield of 1,662 acre feet (well 1 from Phase 1 and wells 2 & 3 from Phase 2) . The downtown wells (719.66 af) would be transferred to the SW Yelm wellfield at the same time for a new water right of 388.34 af and a total water portfolio of 1,894.61 af (1,662 af withdrawn from SW Yelm and 232.61 withdrawn from the golf course well).

Phase 3 (2018-2024) – 875.39 acre feet.

Two additional wells (4 & 5) would be commissioned in the SW Yelm wellfield, pumping 554 acre feet for a total withdrawal in the SW Yelm wellfield of 2,770 af

(wells 1, 2, & 3 from Phases 1 and 2 and wells 4 & 5 from Phase 3). The golf course well (232.61 af) would be transferred to the SW Yelm wellfield at the same time for a new water right of 875.39 acre feet and a total water portfolio of 2,770 af, all being pumped from the SW Yelm wellfield.

Phase 4 (to 2037) – 1,416 acre feet

Three new wells in the SW Yelm wellfield, pumping 554 acre feet each for a total withdrawal in SW Yelm and a total water portfolio of 4,186 acre feet.

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

Upon approval of water rights, construction of new wells, treatment, storage, and distribution facilities would take place pursuant to the Water System Plan in place at the time of construction.

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

City of Yelm Water Rights Mitigation Plan (October 2008, City of Yelm)

Future Demand/Supply Forecast and Groundwater Modeling for Mitigation Planning (October, 2008, Golder Associates, Inc.)

Groundwater Modeling of New Water Right and Transfer Applications (January, 2008, Golder Associates, Inc.)

McAllister Wellfield Model: Comprehensive Pumping Scenario for Cities of Olympia, Lacey, and Yelm (July 2008, S.S. Papadopolus & Associates, Inc.)

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.

There are a number of pending developments within the Yelm water service area, which is identified as the Yelm Urban Growth Area. Development within Yelm and the Urban Growth Area adopted pursuant to the Growth Management Act is dependent, in part, on the City of Yelm being able to provide urban level infrastructure to accommodate urban growth, including potable water.

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

Water Rights Certificate – Washington Department of Ecology

Well Drillers Report – Thurston County Health Department

Well Construction Review and Approval – Washington Department of Health

Water System Plan Update – Washington Department of Health

Source, Storage, and Distribution Infrastructure Construction Review and Approval – Washington Department of Health

11. Give brief, complete description of your proposal, including the proposed uses and the size of the project and site. There are several questions later in this checklist that ask you to describe certain aspects of your proposal. You do not need to repeat those answers on this page.

The City of Yelm provides potable water to its residents and others within its water service area through the operation of a municipal water system. The present water service area is comprised of those properties within the City limits, and an area north of the Centralia power canal that Yelm has historically provided potable water. The water service area is approximately 9.7 square miles and includes a number of existing, independent water systems that are located adjacent to or inside the Yelm water service area.

To provide potable water to its customers, Yelm withdraws water from a well field located in the central business district, treats the water, stores it in two 500,000-gallon water tanks, and distributes it to water customers through a system of water mains and service lines. Water to serve the existing Yelm water system is pumped from an aquifer located in an Advance Vashon Outwash (Qga) deposit located in the Yelm Creek sub-basin of the Nisqually River watershed.

The City of Yelm currently does not have sufficient water rights to serve the entire water service area. Water right applications for additional rights sufficient to serve future growth in the City of Yelm and its Urban Growth Area were made to the Washington Department of Ecology in 1994 to withdraw water from the southwest quadrant of the City on property that is zoned for and being developed as a Master Planned Community. The application would withdraw water from the deeper Undifferentiated Tertiary Aquifer (TQu)

The City of Yelm hired the firm Golder and Associates to model the impacts of additional groundwater withdrawals on in-stream flows in Yelm Creek, the Nisqually River, and the Deschutes River. The City not only modeled the impacts of additional groundwater withdrawals by the City of Yelm, but also included a cumulative impacts analysis that considered additional and changed withdrawals by the Cities of Olympia and Lacey within the Nisqually watershed.

The mitigation plan provides a template for mitigating the short and long term impacts to in-stream flows attributable to additional groundwater withdrawals by the City of Yelm.

12. Location of the proposal. Give sufficient information for a person to understand the precise location of your proposed project, including a street address, if any, and section, township, and range, if known. If a proposal would occur over a range of area, provide the range or boundaries of the site(s). Provide a legal description, site plan, vicinity map, and topographic map, if reasonably available. You need not duplicate maps or detailed plans submitted with any permit applications related to this checklist.

The SW Yelm wellfield would be located in the Southwest quadrant of the City of Yelm in the area of the Thurston Highlands Master Planned Community. The property is approximately 1,240 acres and is located in the south ½ of Section 23, the east ½ of Section 26, and Section 27, Township 17 North, Range 1 East, W.M.

B. ENVIRONMENTAL ELEMENTS

1. **Earth**

a. General description of the site (circle one):
flat, rolling, **hilly**, steep slopes, mountainous, other _____

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

30%.

c. What general types of soils are found on the site (for example, clay, sand, gravel, peat, muck)? If you know the classification of agricultural soils, specify them and note any prime farmland.

Alderwood gravelly sandy loam, Everett gravelly sandy loam, Indanola loamy sand, Mukilteo muck, Tenino gravelly loam, and Yelm fine sandy loam.

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

Areas within the SW Yelm project area contain unstable soils. No wells would be developed within these areas.

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

Minor amounts of cuts and fills would be expected for the construction of wells and pump houses after water rights have been allocated.

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

Localized erosion could take place during well construction or the construction of pump houses after water rights have been allocated.

g. About what percent of the site will be covered with impervious surfaces after project construction such as asphalt or buildings?

Less than 1%.

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

Standard erosion control methods required by the City of Yelm during construction activities.

2. **Air**

- a. What types of emissions to the air would result from the proposal (i.e., dust, automobile exhaust, odors, industrial wood smoke) during construction and when the project is completed? If any, generally describe and give approximate quantities if known.

Emissions from well drilling rigs and construction equipment during well drilling and construction of pump houses.

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

No.

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

None required.

3. **Water**

- a. Surface Water

- 1) Is there any surface water body or wetland on or in the immediate vicinity of the site (including year-round and seasonal streams, saltwater, lakes, ponds)? If yes, describe type and provide names. State what stream or river it flows into?

The proposed SW Yelm wellfield is located in the northwest quadrant of the Nisqually watershed, within the Yelm Creek sub-basin. The principal surface water features of this sub-basin include Yelm Creek, the Centralia Power Canal, and Thompson Creek.

Yelm Creek drains most of the Yelm prairie and discharges to the Nisqually River.

The Centralia Power Canal is a man-made diversion used to generate electrical power for the City of Centralia. Surface water is diverted from the Nisqually River, used to power electrical generators at a power generation facility located near the western edge of the Yelm City limits and discharged back to the Nisqually.

Thompson Creek drains the western edge of the Yelm prairie adjacent to the site before discharging to the Nisqually River about one-half mile downstream of the Yelm Creek discharge.

The Nisqually River, sourced by the Nisqually Glacier on Mount Rainier, is located about one mile northeast of the site and flows into Puget Sound at the Nisqually Delta, about 10 miles northwest of Yelm. The Deschutes River, located about 6 miles southwest of the site, has headwaters in the Cascade foothills and flows into Budd Inlet of Puget Sound in Olympia.

- 2) Will the project require any work over, in, or adjacent to (within 300 feet) the described waters? If yes, please describe and attach available plans.

No.

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.

None.

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

No.

5) Does the proposal lie within a 100-year floodplain? If so, note elevation on the site plan.

No.

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

No.

b. Groundwater:

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

The application is for the allocation of new water rights in the amount of 3,233.73 acre feet in phases over the upcoming 30 year planning horizon.

The proposal includes the the transfer of water rights from the downtown Yelm wells, which are located in the Yelm Sub-basin of the Nisqually River

2) Describe the underlying aquifer with regard to quality and quantity, sensitivity, protection, recharge areas, etc.

The application would draw water from the Undifferentiated Tertiary Aquifer (Tqu) a deep regional aquifer. The potential impacts to this and other aquifers are described in detail in the mitigation plan.

3) Describe waste material that will be discharged into or onto the ground from septic tanks or other sources, if any (such as domestic sewage; industrial byproducts; agricultural chemicals).

None.

c. Water Runoff (including storm water):

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

Minor amounts of stormwater runoff could be generated from impervious surfaces associated with the pump houses.

2) 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:

The Yelm Water Rights Mitigation Plan, attached to and incorporated into this checklist by reference, establishes a program and process to mitigate impacts on the upper McAllister Valley, Nisqually River Valley (including Yelm Creek), the Woodland Creek Sub-basin (including Hicks, Long and Pattison Lakes) and the Deschutes River and tributaries attributable to the additional withdrawal of groundwater by the City of Yelm. The Mitigation Plan is consistent with the Nisqually Watershed Plan, the Detailed Implementation Plan, and Mitigation Plans prepared by the Cities of Olympia and Lacey in order to address cumulative watershed impacts.

4. **Plants**

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

deciduous tree: alder, maple, oak, aspen, other

evergreen tree: fir, cedar, pine, other

shrubs

grasses

pasture

crops or grains

wet soil plants: cattail, buttercup, bulrush, skunk cabbage, other

water plants: water lily, eelgrass, milfoil, other

other types of vegetation

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

Minor amounts of vegetation, mostly grasses and shrubs, would be removed for the construction of wells and subsequent pump houses.

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

Oak.

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

None required.

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, ducks, eagle, songbirds,

other: _____

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

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

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

Western Bluebird.

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

No.

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

None required.

6. Energy and Natural Resources

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

Electric energy to run water pumps.

- b. Would your project affect the potential use of solar energy by adjacent properties? If so, generally describe.

No.

- 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:

Compliance with energy codes.

7. Environmental Health

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

Some toxic chemicals such as caustic soda may be used to treat water in order to meet Department of Health standards for potable water quality.

- 1) Describe special emergency services that might be required.

None.

- 2) Proposed measures to reduce or control environmental health hazards, if any:

None required.

- b. Noise

- 1) What types of noise exist in the area which may affect your project (for example: traffic, equipment operation, other)?

None.

2) What types and levels of noise would be created by or associated with the project on a short-term or a long-term basis (for example: traffic, construction, operation, other)? Indicate what hours noise would come from the site.

Minor amounts of noise during well construction during daytime hours for up to several weeks.

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

None required.

8. Land and Shoreline Use

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

The area of the proposed SW Yelm wellfield is currently vacant but an application is being processed for the Thurston Highlands Master Planned Community on the property.

b. Has the site been used for mineral excavation, agriculture or forestry? If so, describe.

Prior to annexation into the City of Yelm in the mid-1990's, the site was managed for commercial forestry.

c. Describe any structures on the site.

None.

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

No.

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

Master Planned Community.

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

Master Planned Community.

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

Not Applicable.

h. Has any part of the site been classified as a "natural resource", "critical" or "environmentally sensitive" area? If so, specify.

The area in which the proposed SW Yelm wellfield would be located contains critical areas including priority habitats, wetlands, and erosion hazard areas. No well within the wellfield would be located in any of these

environmentally sensitive areas. The entire City of Yelm is identified as a critical aquifer recharge area.

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

None.

- j. Approximately how many people would the completed project displace?

None.

- k. Proposed measures to avoid or reduce displacement impacts, if any:

None required.

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

Obtaining additional water rights to serve the City of Yelm and its Urban Growth Area is consistent with the Yelm Comprehensive Plan and Joint Plan with Thurston County, which plans to accommodate population growth as allocated by the Washington State Office of Financial Management and Thurston County. The acquisition of additional water rights is required to remain consistent with the goals of the Growth Management Act and the Yelm Comprehensive Plan to continue urbanization within an identified urban growth area.

9. **Housing**

- a. Approximately how many units would be provided, if any? Indicate whether high, middle, or low-income housing.

None.

- b. Approximately how many units, if any, would be eliminated? Indicate whether high, middle, or low-income housing.

None.

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

None required.

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?

25 feet.

- b. What views in the immediate vicinity would be altered or obstructed?

None.

- c. Proposed measures to reduce or control aesthetic impacts, if any:

None required.

11. **Light and Glare**

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

Localized security lighting at pump houses after well construction.

- 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:

None required.

12. **Recreation**

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

The property is currently vacant, but ultimately will be developed at urban densities with urban recreational amenities in the general area.

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

None.

- c. Proposed measures to reduce or control impacts or provide recreation opportunities:

None required.

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. Generally describe any landmarks or evidence of historic, archeological, scientific, or cultural importance known to be on or next to the site.

None.

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

None required.

14. **Transportation**

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

The property is currently vacant.

- b. Is site currently served by public transit? By what means? If not, what plans exist for transit service?

No.

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

Pump houses would require 1 to 2 parking spaces each and none would be eliminated.

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

No.

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

No.

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

Less than 10 at each pump house.

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

None required.

15. **Public Services**

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

No.

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

Not Applicable.

16. **Utilities**

- a. Circle utilities currently available at the site: electricity, natural gas, water, refuse service, telephone, sanitary sewer, septic system, 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.

Electricity and water. Eventually, the entire SW Yelm area will be developed at urban densities and all public utilities will be located in the area.

C. SIGNATURE

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

Signature: Shelly Badger
Shelly Badger, City Administrator

Date Submitted: 12-17-08

SUPPLEMENTAL ENVIRONMENTAL CHECKLIST FOR NONPROJECT ACTIONS

(Do not use this sheet for project actions.)

When answering these questions, be aware of the extent of 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 or 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 or natural resources?

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

4. How would the proposal be likely to use or affect critical or 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 natural resource areas?

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

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 services and 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.