



## King County ENVIRONMENTAL CHECKLIST

### Construction of Farm Pads on Snoqualmie Valley Farms

#### ***Purpose of the Checklist:***

The State Environmental Policy Act (SEPA), Chapter 43.21 RCW, requires all governmental agencies to consider the environmental impacts of a proposal before making decisions. An environmental impact statement (EIS) must be prepared for all proposals with probable significant adverse impacts on the quality of the environment. The purpose of this checklist is to provide information to help you and the agency identify impacts from your proposal (and to reduce or avoid impacts from the proposal, if it can be done) and to help the agency decide whether an EIS is required.

#### ***Instructions for Applicants:***

This environmental checklist asks you to describe some basic information about your proposal. Governmental agencies use this checklist to determine whether the environmental impacts of your proposal are significant, requiring preparation of an EIS. Answer the questions briefly, with the most precise information known, or give the best description you can.

You must answer each question accurately and carefully, to the best of your knowledge. In most cases, you should be able to answer questions from your own observations or project plans without the need to hire experts. If you really 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 unnecessary delays later.

Some questions ask about governmental regulations, such as zoning, shoreline, and landmark designations. Answer these questions if you can. If you have problems, the governmental agencies 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. The agency to which you submit this checklist may ask you to explain your answers or provide additional information reasonably related to determining if there may be a significant adverse impact.

#### ***Use of Checklist for Nonproject Proposals:***

Complete this checklist for nonproject proposals, even though questions may be answered “**does not apply**.” In addition, complete 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.

**A. BACKGROUND****1. Name of the proposed project, if applicable:**

Construction of Farm Pads on Snoqualmie Valley Farms

**2. Name of Applicant:**

King County Department of Natural Resources and Parks (DNRP), Water and Land Resources Division

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

201 South Jackson Street, Suite 600

Seattle, WA 98104-3855

Contact: Claire Dyckman

Phone: 206-1926

Fax: 206-296-0192

**4. Date checklist prepared:** June 22, 2009**5. Agency requesting checklist:**

King County Department of Natural Resources and Parks

Water and Land Resources Division

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

Farm pads have been proposed for construction in 2009. It is expected that additional farm pads will be will be proposed in future years.

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

Yes. Depending on the results of area-wide analysis of the availability of compensatory storage, other environmental impacts, and the needs of farmers for flood protection, it is possible that King County would allow larger pads in the future, but if so, we would amend the SEPA documents. Similarly, we would amend the analysis if future proposals were for farm pads on farms in the floodplain of the Green River.

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

Use of:

- Best Available Science, Volume I: A Review of Science Literature, King County Executive Report, February 2004.
- Best Available Science, Volume II: A Review of Science Literature, King County Executive Report, February 2004.
- Flood Hazard Management Plan: King County Washington. King County Department of Natural Resources and Parks, Water and Land Division. Seattle, Washington. 2006.
- Flood Insurance Study, King County Washington, Volumes I – III, Federal Emergency Management Agency, April 2005.

- King County Public Rule for Flood Hazard Areas, Nov 6, 2002, amended April 7, 2003, 21A.24.30
- King County Ordinance 17162, and associated SEPA documents.

**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.**

No.

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

King County Grading Permit

King County Shoreline Exemption

King Conservation District Farm Plan

**11. Give a 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. (Lead agencies may modify this form to include additional specific information on the project description.)**

The proposal is to reduce flood losses on farms in the Snoqualmie Valley floodplain through the construction of farm pads on existing farms that are within the one hundred year floodplain of the Snoqualmie River and within or adjacent to the designated Snoqualmie Agricultural Production District. The purpose of the project is to allow, on individual farms that are below the base flood elevation, an area of high ground above the base flood elevation for the protection of animals, equipment, and farm products. The number and size of farm pads to be allowed will be constrained by the ability of proposed farm pads to meet the applicable compensatory storage and conveyance standards and other environmental regulations. King County will conduct an analysis of potential upstream and downstream flood impacts on each proposed farm pad, and will not permit any pad that would result in a detectable flood level rise. Because of the similarity of possible impacts from the construction of these pads, their limited size, and the limited geographic area, King County Water and Land Resources Division is analyzing these similar actions in a single checklist, as allowed in WAC 197-11-060, 3, c., and is addressing them together in this determination. We intend that this programmatic SEPA process will cover applications for farm pad proposals received in 2009 and in future years.

**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 plan, and topographic map, if reasonably available. While you should submit any plans required by the agency, you are not required to duplicate maps or detailed plans submitted with any permit applications related to this checklist.**

The programmatic SEPA covers the construction of farm pads on farms located in or immediately adjacent to the Snoqualmie Agricultural Production District and within the one

hundred year floodplain of the Snoqualmie River, in King County, Washington (Attachment A).

## B. ENVIRONMENTAL ELEMENTS

### 1. Earth

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

The proposed regulations apply to flat floodplains that have been cleared and modified for farming.

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

Slopes are zero to three percent.

- 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.*

Construction would occur on sites adjacent to or on prime farmland soils such as the Seattle Muck and Alderwood, Kitsap, Briscott, Puget, Pilchuck, Sultan, and Nooksack silty or sandy loams.

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

Areas may include soils that are eroded by floods or are subject to liquefaction.

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

This environmental analysis is limited to farm pads that do not exceed approximately 10,000 square feet at the top. The amount of fill needed depends on both the horizontal dimensions and the height needed to reach one foot above base flood elevation. It is expected that the farm pads considered in this analysis will require from 1500 to 5000 cubic yards of fill. Shallow grading could occur on some sites to prepare the site for receipt of the fill. The source of fill will be from permitted sites. Existing clearing and grading regulations apply.

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

Existing regulations apply. Both the Natural Resources Conservation Service (NRCS) and King County will oversee construction to insure that silt fences are used appropriately to contain any potential erosion during construction of the pads, and to insure that slopes are stabilized with seeding or rock after construction.

- g. *About what percent of the site will be covered with impervious surfaces after project construction (for example, asphalt or buildings)?*

Some farm pads will be pervious surfaces, some will have portions in impervious surface. However, it is expected that the area of impervious surface on the farm pad will be a very small percentage of the overall farm acreage on which it is built. For example, a 10,000 square foot pad (the largest to be included in this proposal) is well under one percent of a twenty acre farm.

- h. Proposed measures to reduce or control erosion, or other impacts to the earth, if any:*  
Existing regulations apply. Additional technical assistance and oversight will be provided by NRCS who will have a contract with many of the farmers to assist with pads and to ensure that best management practices related to erosion control will be followed. These include the installation of silt fences, if necessary, during construction, requiring sides to be at a slope that is stable, seeding of side slopes, proper compaction of pad, and treatment of the top surface.

## 2. Air

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

During construction of farm pads, emissions to the air may occur from equipment at the site, e.g., backhoes, loaders, tractors and trucks. These would include carbon monoxide and dioxide, reactive organic gases, and nitrogen oxide. Construction equipment is equipped with standard emission control devices.

Airborne dust particles may result from construction activities. Upon project completion, this impact will cease. The completed projects will not cause an increase in vehicle trips or contribute to air quality degradation.

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

Existing regulations apply to the sites from which fill will be procured.

- c. Proposed measures to reduce or control emissions or other impacts to the air, if any:*  
No.

## 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, saltwater, lakes, ponds, wetlands)? If yes, describe the type and provide names. If appropriate, state what stream or river it flows into.*

Construction will occur in the floodplain of the Snoqualmie River, sometimes within 200 feet of the river, an oxbow, or a major or minor tributary. These are Type S Aquatic Areas in the King County Critical Areas regulations and are also mapped and defined as shorelines of the state under the State Shoreline Management Act (RCW 90.58) and its rules (Chapter 173-26 WAC). Existing regulations apply.

Construction may also occur within 200 feet of a wetland or within a grazed wet meadow when other alternatives do not exist. Existing regulations will apply.

- 2) Will the project require any work over, in, or adjacent to (within 200 feet) of the described waters? If yes, please describe and attach available plans.*

The proposed regulations apply to lands that may be within 200 feet of the above waters. These lands are in existing agricultural use on areas that have already

been prior-cleared for agricultural use. Critical areas and shorelines are protected by existing regulations. Attachment A shows the area in which proposed pads may occur.

- 3) *Estimate the amount of fill and dredge material that could 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.*

Existing regulations do not allow fill to be placed in or removed from wetlands. Some pads will be built in grazed wet meadows if there is no other alternative. These projects will receive additional review from appropriate agencies and existing regulations will apply.

- 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 location on the site plan.*

The construction of farm pads will occur in the 100 year floodplain of the Snoqualmie River, including the mapped FEMA floodway (Attachment A).

- 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. *Ground:*

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

No.

- 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 (if applicable), or the number of animals or humans the system(s) are expected to serve.*

Existing regulations apply to waste discharges in the floodplain. The Dairy Nutrient Management Program and the King County Livestock regulate animal wastes that may occur on farm pads.

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.*

Existing stormwater regulations apply. The Snoqualmie Valley in this location is a direct discharge area. Runoff is governed by a combination of the stormwater manual and NRCS best management practices.

2) *Could waste materials enter ground or surface waters? If so, generally describe.*  
Existing regulations apply. Some farms do not have existing driveways to the construction site. Special measures such as hog fuel and street sweeping will be prescribed in the permit process to prevent sediment from endangering roadways or entering into surface waters.

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

Farm pads will be located on pervious surfaces where there is little slope. The construction site will be surrounded by pervious areas (dirt and/or grass). Existing regulations and permit conditions apply. Construction sites will be staked or flagged to insure that fill is properly located. Silt fences will be installed between the construction site and any nearby wetland, stream, or river.

#### 4. Plants

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

A variety of plants could be found on any farm constructing a farm pad. It is unlikely that trees will be affected. Most of the projects are in farm fields.

- Deciduous trees: alder, maple, aspen, other
- Evergreen trees: fir, cedar, pine, other
- Shrubs
- Grass
- Pasture
- Crop or grain
- 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?*

The majority of vegetation removal will occur on cultivated agricultural fields or developed portions of existing farms. There will be no clearing of trees. In some instances, small areas of blackberries, other invasives, young scrub alder, dogwood, or other shrubs may be cleared.

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

It is unlikely that any rare or endangered plants occur on the sites of any proposed farm pads, as they will be located on highly altered farm fields.

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

Existing critical areas mitigation regulations apply.

**5. Animals**

- a. *Check or underline any birds or animals that have been observed on or near the site, or are known to be on or near the site:*

The proposed regulations apply to agricultural lands used by many species of birds and wildlife.

- 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.*

Chinook, Steelhead, and Bull Trout.

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

Portions of the floodplains are used by bird species in the Pacific flyway. Fish migrate in the rivers, including at flood stage.

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

Existing regulations apply.

**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? Describe whether it will be used for heating, manufacturing, etc.*

Petroleum fuels will be used to operate construction equipment for construction of farm pads. Some energy will be used within new agricultural buildings that may be built on the pads in the future including electricity for lighting and running equipment such as coolers or food washing equipment.

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

Because of the low density land use, and large size of most farms, there is no anticipated effect on the potential use of solar energy by adjacent properties.

- 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 proposed. Existing regulations would apply to any buildings constructed on farm pads in the future.

**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.*

The construction of agricultural buildings out of the floodwaters will reduce contamination of flood waters from livestock manure and will reduce the likelihood that farm fertilizers, pesticides, or farm automotive products will contaminate flood waters.

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

The purpose of constructing the farm pads for livestock, equipment and supplies to be above the Base Flood Elevation is to reduce the need for rescue or emergency services.

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

The County is participating in a Product Safety program that is improving storage of potentially hazardous materials in the floodplain.

b. *Noise:*

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

Normal agricultural noise (e.g. animals, tractor engines) will not have an effect.

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

The project will not have long-term effects on noise levels.

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

Existing regulations apply.

## 8. Land and Shoreline Use

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

The proposed project applies exclusively to sites that are in agricultural use.

- b. *Has the site been used for agriculture? If so, describe.*

Yes, see 8a. The sites are existing farm fields.

- c. *Describe any structures on the site.*

It is unlikely that there will be structures on the sites of the farm pads, although a variety of buildings may be found on the farms.

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

It is conceivable that an agricultural building may be demolished to be replaced by a pad, but that occurrence is unlikely. The demolition would be covered by existing regulations.

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

Farm pads will be built on Agriculture (A)-Zoned parcels in unincorporated King County, and perhaps on a few Rural (RA 10) sites that are adjacent to the A-zone and in agricultural use.

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

The land use designation is Agriculture. The area is known as the Agriculture Production District (APD), which is King County's designation of Agricultural Lands of Long-Term Commercial Significance under the Growth Management Act.

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

The proposed project will occur on lands in the Resource Designation of the Shoreline Master Program.

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

The proposed regulations apply to floodplains that are considered “environmentally sensitive” areas and are protected by the existing critical area regulations. Within the floodplain there are many classified rivers, streams, agricultural waterways, and wetlands that are considered “environmentally sensitive” areas. Because the proposed project is on existing farms with farm plans, they are subject to flexible standards within the Critical Areas Ordinance.

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

Residences are not allowed on farm pads. Some farm buildings on pads may be used by one or two farm workers year-round or by a larger number of farm workers on a seasonal basis.

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

Farm pads do not displace any people.

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

NA.

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

The proposed pads are intended to help support the designated agricultural land use yet retain the zero-rise safety standard for the floodplain.

## **9. Housing**

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

NA.

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

NA.

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

NA.

## **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?*

The height of farm pads ranges from a few feet to over 15 feet depending on the elevation of the farm in relation to the Base Flood Elevation. The King County zoning code would limit the height of structures placed on farm pads to 35 feet.

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

Agricultural structures are a low-density land-use and immediate views are generally not obstructed.

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

Nothing proposed.

**11. Light and Glare**

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

Possibly some additional lighting would be used within new agricultural buildings on farm pads but these would not have a significant impact on neighbors.

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

No. Many of the pads will be built near areas with buildings that are lit. Should buildings be permitted on the top of pads they will be subject to existing regulations.

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

None anticipated.

- d. *Describe proposed measures to reduce or control light and glare impacts, if any.*

None proposed.

**12. Recreation**

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

River recreation and biking on farm roads occur within the APD; customers and the public visit farms.

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

No. This is agricultural land.

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

NA.

**13. Historical 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.*

A number of the existing agricultural buildings on these sites may be included in the King County Historic Barn inventory. It is highly unlikely that a historic building would be negatively affected by this proposal. The project is intended to help support the historic agriculture use of the site. In the unlikely event that any historic agricultural building were proposed to be affected, it would be reviewed by the King County Landmarks Commission; if federal funding were used, the project would be subject to the National Historic Preservation Act.

- b. *Generally describe any landmarks or evidence of historical, archaeological, scientific, or cultural importance known to be on or next to the site.*

The sites of the pads are farm fields. Since there will be no excavation on site, it is not expected that any historical, archeological, scientific, or cultural resources will be disturbed.

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

Mitigation measures that could be applied to historic buildings include archival photographic report, measured floor plans, historic narrative, minimization of visual

intrusion through choice of materials and colors, restoring historic features such as access ramps and interior barn features and landscape screening of new elevated foundations.

#### 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.*

These sites are served by agricultural roads, by county roads including the Woodinville-Duvall Road, NE 124<sup>th</sup>, West Snoqualmie Valley Road, Union Hill Road, Tolt Hill Road, Novelty Hill Road, NE Cherry Valley Road, Ames Lake – Carnation Road, Snoqualmie River Road; and state routes 520, 202, and 203.

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

No.

- 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).*

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.*

None.

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

NA.

#### 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:*

None.

#### 16. Utilities

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

Most of the sites will not have existing underground utilities because they are farm fields. Existing regulations apply for any building that may be placed on a farm pad in the future.

- 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 that might be needed.

New electrical or water service may be needed for new agricultural structures on farm pads. Water would be from on-site wells and electricity from Puget Sound Energy.

There is no sewer service in the area. On-site septic systems will not be permitted on farm pads.

**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:



Title:

Program Manager, Agriculture, Forestry & Incentives

Date Submitted:

6/22/2009