

USDA-Rural Development  
Form RD 1940-21  
(Rev. 6-88)

ENVIRONMENTAL ASSESSMENT FOR CLASS I ACTION

1. Description

- a. Name of Project: Rainier Biogas LLC
- b. Project Number: 125029042
- c. Location: 43218 208th Ave. SE, Enumclaw, WA 98022

2. Protected Resources

The following land uses or environmental resources will either be affected by the proposal or are located within the project site. (Check appropriate box for every item of the following checklist. If more than one item is checked "yes" the environmental assessment format for a Class II action must be completed, except if the action under review is either (1) an application for a Housing Preservation Grant or (2) normally a categorical exclusion that has lost its exclusion status. The reviewer should not initiate the Assessment for a Class I action when it is obvious that the assessment format for a Class II action will be required.)

	YES	NO
a. Wetlands .....	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b. Floodplains .....	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c. Wilderness (designated or proposed under the Wilderness Act) .....	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d. Wild or Scenic River (proposed or designated under the Wild and Scenic Rivers Act) .....	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e. Historical, Archeological Sites .....	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(listed on the National Register of Historic Places or which may be eligible for listing)		
f. Critical Habitat or Endangered/Threatened Species (listed or proposed) .....	<input type="checkbox"/>	<input checked="" type="checkbox"/>
g. Coastal Barrier included in Coastal Barrier Resources System .....	<input type="checkbox"/>	<input checked="" type="checkbox"/>
h. Natural Landmark (listed on National Registry of Nature Landmark) .....	<input type="checkbox"/>	<input checked="" type="checkbox"/>
i. Important Farmlands .....	<input type="checkbox"/>	<input checked="" type="checkbox"/>
j. Prime Forest Lands .....	<input type="checkbox"/>	<input checked="" type="checkbox"/>
k. Prime Rangeland .....	<input type="checkbox"/>	<input checked="" type="checkbox"/>
l. Approved Coastal Zone Management Area .....	<input type="checkbox"/>	<input checked="" type="checkbox"/>
m. Sole Source Aquifer Recharge Area .....	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(designated by Environmental Protection Agency)		

For an item checked "yes", I have attached as Exhibit 1 both the necessary documentation to demonstrate compliance with the Agency's requirements for the protection of the resource and a discussion setting forth the reasons why the potential impact on the resource is not considered to be significant. If item e. is checked "no", the results of the consultation process with the State Historic Preservation Officer is also attached.

**3. General Impacts**

I have reviewed the environmental data submitted, dated and signed by the applicant as well as any previously completed environmental impact analysis and conclude the following:

- a. The project, the project area, and the primary beneficiaries are adequately identified;
- b. No incompatible land uses will be created nor direct impacts to parks, beaches, dunes, barrier islands, or important wildlife habitats or recreational areas; and
- c. Only minimal impacts or no impacts will result to the following checked items:

- |  |  |
|--|--|
| <input checked="" type="checkbox"/> Air Quality            | <input checked="" type="checkbox"/> Wildlife             |
| <input checked="" type="checkbox"/> Water Quality          | <input checked="" type="checkbox"/> Energy               |
| <input checked="" type="checkbox"/> Solid Waste Management | <input checked="" type="checkbox"/> Construction Impacts |
| <input checked="" type="checkbox"/> Transportation         | <input checked="" type="checkbox"/> Secondary Impacts    |
| <input checked="" type="checkbox"/> Noise                  |  |

An analysis of an item which cannot be checked, therefore having a potential for more than minimal impacts, is attached as Exhibit \_\_\_\_\_.  
*(If more than one item is unchecked, the environmental assessment format for a Class II action must be completed).*

**4. State, Regional and/or Local Government Consultation**

- Yes  No This project is subject to review by State, regional, or local agencies under the requirements of Executive Order 12372, Intergovernmental Review of Federal Programs.

If "Yes" is checked, complete (a), or (b) or (c). *(If negative environmental comments have been received, the environmental assessment format for a Class II action must be completed).*

- a.  The review period has expired and no comments were received.
- b.  No negative comments of an environmental nature were received and the review period is complete, with the comments attached.
- c.  Negative comments of an environmental nature have been received.

**5. Controversy**

- Yes  No This action is controversial for environmental reasons or is the subject of an environmental complaint. If yes, check one of the following::

- The action is the subject of isolated environmental complaints or questions have been raised which focus on a single impact. Attached as Exhibit \_\_\_\_\_ is an analysis of the complaint or questions, and no further analysis is considered necessary.

**6. Cumulative Impacts**

- Yes  No The cumulative impacts of this action and other Rural Development actions, other federal actions, or related nonfederal actions exceed the criteria for a Class I action; or the action represents a phase or segment of a larger project, the latter which exceeds the criteria for a Class I action.

**7. Need for the Project and Alternatives to it**

Attached as Exhibit \_\_\_\_\_ is a brief statement of Rural Development's position regarding the need for the project. Also, briefly discussed are (a) the alternatives which have been considered by the applicant and Rural Development and (b) the environmental impacts of these alternatives. Alternatives include alternative locations, alternative designs, alternative projects having similar benefits, and no action.

**8. Measures to Avoid or Mitigate Adverse Environmental Impacts**

- Yes  No Mitigation measures are required. Attached as Exhibit \_\_\_\_\_ is a description of the site or design change that the applicant has agreed to make as well as mitigation measures that will be placed as special condition within the offer of financial assistance or subdivision approval.

**9. Compliance With Highly Erodible Land and Wetland Conservation Requirements**

- Yes  No This action is subject to the highly erodible and wetland conservation requirements contained in Exhibit M of RD Instruction 1940-G.

If "yes" is checked, complete (a), (b), (c), and (d).

a. Attached as Exhibit \_\_\_\_\_ is a completed Form SCS-CPA-026 which documents the following:

Yes  No Highly erodible land is present on the farm property.

Yes  No Wetland is present on the farm property.

Yes  No Converted wetland is present on the farm property.

b.  Yes  No This action qualifies for the following exemption allowed under Exhibit M:

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c.  Yes  No The applicant must complete the following requirements prior to approval of the action in order to retain or regain its eligibility for Agency financial assistance:

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d.  Yes  No Under the requirements of Exhibit M, the applicant's proposed activities are eligible for Agency financial assistance.

**10. Environmental Determinations**

The following recommendations shall be completed and the environmental reviewer shall sign the assessment in the space provided below.

a. Based on an examination and review of the foregoing information and such supplemental information attached hereto, I recommend that the approving official determine that this project:

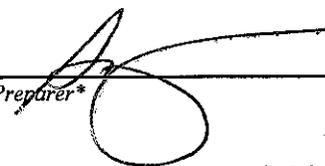
- will have a significant effect on the quality of the human environment and an Environmental Impact Statement must be prepared;
- will not have a significant effect on the quality of the human environment,
- will require further analysis through completion of the assessment format for a Class II action.

b. I recommend that the approving official make the following compliance determinations for the below listed environmental requirements.

Not In Compliance	In Compliance	
<input type="checkbox"/>	<input checked="" type="checkbox"/>	Clean Air Act
<input type="checkbox"/>	<input checked="" type="checkbox"/>	Federal Water Pollution Control Act
<input type="checkbox"/>	<input checked="" type="checkbox"/>	Safe Drinking Water Act-Section 1424(e)
<input type="checkbox"/>	<input checked="" type="checkbox"/>	Endangered Species Act
<input type="checkbox"/>	<input checked="" type="checkbox"/>	Coastal Barrier Resources Act
<input type="checkbox"/>	<input checked="" type="checkbox"/>	Coastal Zone Management Act-Section 307(c)(1) and (2)
<input type="checkbox"/>	<input checked="" type="checkbox"/>	Wild and Scenic Rivers Act
<input type="checkbox"/>	<input checked="" type="checkbox"/>	National Historic Preservation Act
<input type="checkbox"/>	<input checked="" type="checkbox"/>	Archeological and Historic Preservation Act
<input type="checkbox"/>	<input checked="" type="checkbox"/>	Highly Erodible Land and Wetland Conservation, Food Security Act
<input type="checkbox"/>	<input checked="" type="checkbox"/>	Executive Order 11988, Floodplain Management
<input type="checkbox"/>	<input checked="" type="checkbox"/>	Executive Order 11990, Protection of Wetlands
<input type="checkbox"/>	<input checked="" type="checkbox"/>	Farmland Protection Policy Act
<input type="checkbox"/>	<input checked="" type="checkbox"/>	Departmental Regulation 9500-3, Land Use Policy
<input type="checkbox"/>	<input checked="" type="checkbox"/>	State Office Natural Resource Management Guide

c. I have reviewed and considered the types and degrees of adverse environmental impacts identified by this assessment. I have also analyzed the proposal for its consistency with Rural Development environmental policies, particularly those related to land use, and have considered the potential benefits of the proposal. Based upon a consideration and balancing of these factors, I recommend from an environmental standpoint that the project

- be approved       not be approved because of the attached reasons (see Exhibit \_\_\_\_\_).

  
 \_\_\_\_\_  
 Signature of Preparer\*

\_\_\_\_\_

Title Business Programs Specialist

09-01-2010  
 \_\_\_\_\_  
 Date

\*See Section 1940.302 for listing of officials responsible for preparing assessment.

\_\_\_\_\_  
*Signature of Concurring Official* <sup>1</sup>

09-01-2010

*Date*

*Title* \_\_\_\_\_

I have reviewed this environmental assessment and supporting documentation. Following are my Positions regarding its adequacy and the recommendations reached by the preparer. For any matter in which I do not concur, my reasons are attached as Exhibit \_\_\_\_\_

Do not

Concur

Concur

- |                          |                                     |                                    |
|--------------------------|-------------------------------------|------------------------------------|
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | Adequate Assessment                |
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | Environmental Impact Determination |
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | Compliance Determinations          |
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | Project Recommendation             |

  
\_\_\_\_\_  
*Signature of State Environmental Coordinator* <sup>2</sup>

09-01-2010

*Date*

<sup>1</sup> See Section 1940.316 for both the instances when a concurring official must sign the assessment and who is authorized to sign as the concurring official.

<sup>2</sup> See Section 1940.316 for instances when State Environmental Coordinator's review is required.

AMENDED  
CLASS 1  
ENVIRONMENTAL  
ASSESSMENT  
ATTACHMENT  
SEPTEMBER 1, 2010

RAINIER BIOGAS LLC  
COMMUNITY  
ANAEROBIC MANURE  
DIGESTER

## **PROJECT DESCRIPTION**

**Applicant's Name:** Rainier Biogas LLC  
20206 436<sup>th</sup> St.  
Enumclaw, WA 98022

**Project Title, Size, or Capacity:**  
Anaerobic Digester to be located in Enumclaw, WA.

**Project Number/Case Number:** 125029042

**Location:**  
The Rainier Biogas LLC site will be situated on property located at 43218  
208<sup>th</sup> Ave. SE, Enumclaw, WA 98022

**Legal Description:**

Located on a tract of land identified as parcel ID 202006-9001

**Project Description:**

This project is located in a rural area serving rural residents. It is a proposal to construct a farm based anaerobic digester for processing dairy manure and the production of electrical power in King County. This digester will be located on a tract of farm land located off of 436<sup>th</sup> and 208<sup>th</sup> west of Enumclaw.

Rainier Biogas LLC plans to install an anaerobic manure digester, a concrete receiving pit, a mechanical building with an attached fiber storage area. There will also be two pipelines associated with the project. An approximate 500 foot pipeline will run from the neighboring dairy barn to the Rainier Biogas pit, and an approximately 1000 foot pipe will run from

the Rainier Biogas pit to the neighboring dairy farm lagoon storage. Both pipes will be directionally drilled under the county road.

A manure digester is a heated, concrete vessel that processes dairy manure and other organic wastes in an oxygen-free environment designed to induce digestion by anaerobic bacteria. Afterwards, the digested fiber solids are separated and dried. The processed manure liquid returns to the farms via truck or pipe and is stored in existing farmers' lagoons and spread on fields in accordance with the Department of Agriculture's Livestock Nutrient Management Program. The digester facility itself will be operated in accordance with the Department of Ecology's Guidelines for Operating an Anaerobic Digester Exempt from Solid Waste Permitting, which allows the importation of limited food-based materials for processing in the digester. The digestion process kills insect larvae, bacteriological pathogens and weed seeds; it greatly reduces manure odor and breaks down macronutrients for faster plant uptake and reduced risk of nitrate runoff. Additionally Rainier Biogas will install post-digestion equipment to remove solids from the manure. This will result in reduction in manure macronutrients phosphorous and nitrogen. The reduced nutrient content of the manure, as well as the reduction of chemical oxygen demand and near-elimination of manure fecal coliform will protect area water quality and also reduce farmer's manure application expenses. The harvested nutrients will meet Washington Class A Biosolids specifications (although they will contain no "biosolids" materials such as human waste) and will be sold into various soil amendment markets or else land-applied as manure on fields that can absorb the nutrients at an agronomic rate.

The digestion process also produces methane-rich biogas which has a variety of uses. The gas will be burned in a piston engine generator on site to create electricity for export to the Puget Sound Energy electrical grid while also heating the digester vessel to sustain bacteria growth and reduce pathogens.

The digester on this site will measure approximately 75x175 feet. It is 16 feet tall in total and will be buried approximately 8 feet in the ground, or less as limited by the depth of the water table. Earth is piled against the digester on all sides as insulation. The digester will be built by Andgar Corporation, of Ferndale Washington. Andgar has constructed Washington's four operational manure digesters. This digester will be capable of converting animal manure from up to 2000 cows into methane gas used to drive electrical power generators

Next to the digester will sit an approximately 45 X 45 pre-engineered steel mechanical building that houses the control equipment, electrical transfer

equipment, and up to two sixteen-cylinder continuous duty gensets that run on methane with a combined output of 1.5 megawatts. The initial installation will include only a single, 750 kW generator (commonly referred to as a “genset”). Excess methane gas from the digester is flared so that no combustible gas will be stored on site.

There will also be a roughly 45 X 25 covered area beside the mechanical building for storing digested fiber and a 20X 75 concrete slab for electrical auxiliary equipment.

The facility will receive manure from up to 2,000 milking cows on 4-8 partner farms via truck and pipeline. Processed manure will be returned via return trips on the truck. Approximately 10 round trips per day each consisting of an average of eight miles will be necessary to supply the digester. The facility will also receive food waste via truck at the rate of approximately one load per day. The facility will comply with Dept of Ecology guidelines for processing food waste in ag-exempt anaerobic digesters and will obtain an air emissions permit from the Northwest Clean Air Agency. The facility will also generate approximately one truck round trip per day for the hauling of digested fiber to farms. This type of truck traffic is within norms for agricultural operations in the area.

The digester system will be designed for a life span of 30 to 50 years. If for any reason the concrete vessel would need to be decommissioned, the cover would be removed and the vessel would be cleaned and filled with an inert material which will render the site stable and prevent people from falling into the tank.

Equipment would be disassembled and salvaged wherever possible. The manure from within the vessel would be pumped into the farmers’ lagoons for future use as fertilizer for their crops so that no animal waste remains on site. If any additional substrates had been processed at the digester, any remaining amounts of that material would also be removed as appropriate.

There are no wastes that create a special concern for disposal during the dismantling and decommissioning of the anaerobic digester system. It is estimated to take four people two months and a forklift, excavator and crane to dismantle and dispose of the entire system the piping would be cut up and sold as scrap metal and the equipment would be sold as used equipment depending on the condition and remaining useful life of the equipment.

It is estimated that labor (\$80,000), equipment rental (\$60,000) and fill dirt (\$25,000) necessary to dismantle and dispose of the system would cost \$165,000. Project is expected to have a lifetime of 30 years.

Decommissioning of the complete facility includes:

- Performing the digester system decommissioning described above
- Buildings and other permanent structures that can be reused would be cleaned and left in place.
- Process equipment would be removed and salvaged
- Other land would be returned to predevelopment conditions.

The proposal is made in response to the Renewable Energy Grant and Loan Program and the Business and Industry Loan Guarantee Program and is consistent with the objectives of the US Department of Agriculture to develop alternative and renewable energy sources and to support creation of new businesses. The project meets criteria for “Green Tags” and is an approved design consistent with the AgSTAR program. AgSTAR is a joint program of the USDA, EPA and DOE designed to encourage the widespread use of livestock manure as an energy source.

**Proposed Action and USDA Rural Development's Position Regarding the Need for the Project:**

USDA’s proposed action is to allow Rainier Biogas LLC to use USDA’s \$500,000 funds for a grant and USDA’s \$1,386,500 funds for a loan guarantee to assist in the financing of the Anaerobic Digester Project. Also, through the Department of Energy’s (DOE) State Energy Program (SEP) funding, DOE is proposing to allow Rainier Biogas LLC to use \$417,750 funds for a grant and \$974,750 funds for a direct loan to further assist in the financing of the Anaerobic Digester Project.

The project is needed to generate electricity, initially 750 kW and later up to 1.5 megawatts, while reducing emissions of carbon dioxide from fossil fuel combustion as well as to offer an alternative method to dispose of livestock manures that reduces emissions of methane, and improves air and water quality.

The USDA Rural Development’s mission is to enhance the ability of rural communities to develop, to grow, and to improve their quality of life by funding projects that create or preserve quality jobs or promote a clean rural environment. This project adheres to the Rural Development mission.

**Applicant's Contact Person:**

Name: Daryl Maas  
Title: Co-Owner  
Rainier Biogas LLC  
Address: 20206 436<sup>th</sup> St  
Enumclaw, WA 98022  
Phone: (360) 424.4519  
Fax: 360-419.4669

**Rural Development's Contact Person:**

Name: Sharon Exley  
Title: Business Programs Specialist  
Address: 2021 E. College Way, Suite 216  
Mount Vernon, WA 98273  
Phone: (360) 428.4322 x159

**Business and Developments That Will Expand and Benefit Due to the Project:**

The primary beneficiary will be Rainier Biogas LLC, a newly formed business that will benefit by utilizing a portion of the energy produced to run the digester and provide excess production to the grid for sale. Fiber material derived from the digester will be sold to area businesses as a sawdust replacement.

Ritter Dairy, on site, will provide manure for the digester. There are several neighboring farms in a five mile radius that may provide additional manure, however at this time no additional contract have been signed. Manure will be delivered to the digester for processing and in turn the farm will be receiving processed manure liquid to spread on fields in accordance with the Department of Agriculture's Livestock Nutrient Management Plan. Additionally, some fiber will be returned to the dairy for use as cow bedding.

Local area residents and those who work in the general vicinity are expected to benefit by an estimated 90% reduction in odor normally associated with dairy operations.

**Related Activities (Interdependent Parts) of Rural Development Action:**

There are no known related Federal actions that are related or would be affected by this proposal.

**Description of Project Site:**

The project site is an approximately 4 acre parcel of farmland along the west side the city of Enumclaw. It lies within a portion of the NE ¼ of Section 20, Township 20, Range 06 E.W.M. within King County.

The land is flat farmland. Traffic near the site is light and consists largely of agricultural vehicles. There is no known wildlife use of the site.

There are no known streams or ditches on the proposed site.

According to current FEMA flood maps, the site not within the floodplain.

This parcel also contains a small mobile home and some barns. According to NRCS data, the site's soil is 100% Alderwood Gravelly Sandy Loam. Soil compression tests and water table measurements are anticipated but not completed.

**Present Land use of Project site:**

This site is currently in planted with grass and corn which is chopped and stored for cow food, with applications of cow manure between cuttings.

**Surrounding Land Uses:**

The surrounding land is primarily zoned Agricultural and is used as farmland or for isolated homes. The site selected for this project is unique in that it lies near dozens of active dairy farms.

**Surrounding Sensitive Areas:**

The surrounding land is all zoned Agricultural and is used as farmland or isolated homes. The land is flat. There are no known streams or ditches on the proposed site. There is no known wildlife use of the site.

A State Environment Policy Act checklist will be filed within a week of energy grant award. King County Water and Land Resources Division responded in a letter for review and comment that the county has been supportive of this project from its early developmental state. Dairies on the Enumclaw Plateau have been under significant financial pressure from rising costs of animal feed, bedding material and environmentally-sound manure management. At the same time, declining milk prices are reducing revenue. This project seeks to reduce the dairies costs for manure management and bedding while providing environmental benefits through production of renewable energy and improvements in water quality in the Green and Wither River watersheds. These objectives are consistent with the county's environmental stewardship, renewable energy and agricultural policies." regarding a proposed conditional land use permit for the project and states "

Any manure digester will be reviewed for consistency with state and local regulation including but not limited to SEPA, Building Code, Fire Code, and from a preliminary standpoint, the proposal appears to be consistent with those regulations."

# SECTION I

## I.0 Compliance with Air Quality Requirements

An email response was received from Claude Williams of Northwest Clean Air Agency indicating an Order of Approval to Construct (OAC) permit will be required prior to construction and is listed as a mitigation measure within this report.

In addition, manure slurry and digester liquid effluent will need to be stored safely on site until processed or transferred offsite to avoid hydrogen sulfide and ammonia emissions. NWCAA will require full review of the engineering data to determine the complete permit conditions.

Other sources of criteria pollutant emissions associated with construction and operation of the facility would include exhaust and fugitive emissions from construction equipment, trucks for delivery to the site of construction materials and animal manure in future years and for hauling away from the site of construction debris and solid byproduct material and vehicles for commuting by workers and visitors. Only a few construction machines/vehicles and a small number of commuting vehicles are expected during the projected 4-6 month construction period. The number of truck trips used for delivery of construction materials to the proposed facility site and removal of construction debris would be about one per day, and that for hauling away dried solid material for sale would average about one to two per day. Collection and delivery of manure in future years would require an additional ten truck round-trips per day. A few commuting vehicles are expected for a full time operator of the facility and potentially a part time worker during the operational period.

Emissions from construction equipment would be intermittent and temporary. Emissions would exist only during daytime working hours. Water spraying techniques will be used to control fugitive dust when necessary.

Any future waste would be delivered in a sealed tank on a truck and pumped through an air-sealed connection to a covered collection tank. Thus, sources of odor at the facility would be limited to the solid composting area, an enclosed area adjacent to the digester, only during the time while the solid recovered from the separator is being transferred to the area for temporary

storage and while the solid material is being loaded onto trucks to be hauled away for sale.

## **2.0 Compliance with Coastal Zone Management Act:**

### **A. Coastal Zone Management Area Requirements:**

The project is located in King County, which is within a coastal zone management area. A Certification of Consistency with Washington's Coastal Zone Management Program was submitted to Ms. Loree Randle, Federal Consistency Coordinator for the Department of Ecology on 5/17/2010. Brenda McFarland, Section Manager responded that Ecology agreed that funding this project is consistent with Washington's coastal Zone Management Program and that any construction activities will be subject to all enforceable policies of the Coastal Zone management program, such as the State Environmental Policy act and State Air Quality Requirements.

### **B. State Shoreline Permit Requirements:**

The property is outside of the shoreline jurisdictional area and no shoreline permit is required.

Per the King County Critical Area Ordinance website, the subject site appears to be outside of the state shoreline area. All land use and development permit applications submitted to King County Planning are reviewed for conformance with the provisions of the King County Critical Area Ordinance. King County reserves the right to require additional information and conditions associated with permit review/approval.

## **3.0 Compliance with Endangered Species Act:**

### **A. Effect on Endangered or Candidates to Become Endangered Species:**

Mr. Larry Fisher, Area Habitat Biologist for the Washington Department of Fish and Wildlife confirmed in a letter dated

5/26/2010 that WDFW concurs with the information submitted to them that none of the state listed endangered species would be affected by the project, as habitat for these animals was not found at the project site during the WDFW review. It also does not appear the pipeline linking to the DeGroot Dairy will cross any jurisdictional watercourses, so a Hydraulic Project Approval permit is not required for the project.

**4.0 Compliance with Farmland Protection Policy Act and Department Regulation 9500-3, Land Use Policy:**

Land use will change a cow food producing parcel by creating the low profile digester and a small building to house the mechanical equipment to be placed on the building lot.

All surrounding land, directly impacted by this action, is currently in dairy operations and minimal corn crop production and is expected to remain so for the foreseeable future.

The Natural Resources Conservation Service (NRCS) database was consulted regarding this project's impact on important forest land and farmland in the area. Based on the King County Soil survey, the land is comprised of Alderwood Gravelly Sandy Loam. In previous discussions with Chuck Natsuhara, NRCS Soil Conservationist, he stated the site would not be considered prime forestland or rangeland or farmland. It would only be prime farmland if irrigated, which the site is not".

**5.0 Compliance with Executive Order 11988, Floodplain Management, and Executive Order 11990, Protection of Wetlands:**

**A. Project Relationship to Floodplains:**

The digester project is not located within the 100 year floodplain.

**B. Project Relationship to Wetlands:**

There are no wetlands listed for this location. The project site is currently in corn crop production.

**6.0 Compliance with Forestland Protection Policy Act and Department Regulation 9500-3, Land Use Policy:**

The Natural Resources Conservation Service (NRCS) database was consulted regarding this project's impact on important forest land in the area. NRCS indicated that the soil is not a hydric soil. Alderwood Gravelly Sandy Loam is not a hydric soil and therefore is not considered prime forestland.

**7.0 Compliance with National Historic Preservation Act and Archaeological and Historic Preservation Act:**

A Historic and Cultural Resources Project Review was requested of the Department of Archaeology and Historic Preservation Office (DAHP) on 5/17/2010

The Department of Archaeology and Historic Preservation Office, by letter dated 5/17/2010 concurred with USDA's determination of the Area of Potential Effect (APE) as detailed in our letter.

Letters were written on 5/13/2010 to the following Tribes, advising them of the proposed construction and requesting their assistance with information or comments on the project, the potential effect of the project and any potential effect on the undertaking of any historic property which might be affected by the proposed project:

Colville Tribe  
Muckleshoot Tribe  
Snoqualmie Tribe  
Yakama Nation

One independent tribal response was received from Muckleshoot requesting a cultural resource study. This study was ordered on 6/3 and conducted by Equinox Research Consulting (Kelley Bush). No protected cultural resources or historic properties were identified during the archaeological investigation within the project area.

A copy of this study was forwarded to DHAP and the four tribes on 6/17/2010. DHAP responded 6/21/2010 concurring with the determination of No Historic Properties affected.

**8. A Compliance with National Natural Landmarks Program:**

**A. National Historic Places:**

A review of the National Register of Historic Places indicates that this site is not on the National Historic Registry. Washington State has no National Memorials, National Battlefields, National Cemeteries, National Seashores or National Parkways.

**B. National Areas Reserves:**

According to the Washington State Department of Natural Resources Natural Heritage Information System website the parcel does not appear as a surveyed land section identified as reported to contain Natural Heritage Features

Mr. John Gamon, Natural Heritage Program Manager for Washington State Department of Natural Resources was consulted on May 14, 2010 and a follow-up request was placed to obtain comments, however no response has been received to date. Since the farm is previously disturbed site that is currently planted in grass and corn, no take to natural plants is anticipated.

Washington State has only two National Historic Sites: Whitman Mission and Fort Vancouver.

**8. B Compliance with USDA policy re: impact to a National Parks System:**

A review of the National Parks Service website shows that there are no National Parks in the vicinity of the project.

Washington State has only two National Historic Parks: San Juan Island and Klondike Gold Rush-Seattle Unit.

Washington State has three National Recreational Areas: Lake Roosevelt, Lake Chelan and Ross Lake.

**8. C Compliance with Columbia River Gorge National Scenic Area Act:**

The proposed location is not in the vicinity of and will not impact the Columbia River Gorge.

**8. D Compliance with USDA policy re: impact to a National Parks System:**

A review of the National Trails Service website shows that there are no National Trails in the vicinity of the project.

**9.0 Compliance with Department Regulation 9500-3, Land Use Policy on Rangeland:**

The Natural Resources Conservation Service (NRCS) database was consulted regarding this project's impact on important forest land and farmland in the area. Review of the database information confirms this is not considered Rangeland.

**10.0 Sole Source Aquifers**

The project is not located in a sole source aquifer per the EPA web-site.

**11.0 Water Quality- Compliance with Clean Water Act, Safe Drinking Water Act, Federal Water Pollution Control Act:**

Impacts from construction of the digester should be minor. Construction will take place on the project site in a previously disturbed area. There is a potential for minor erosion during construction of the digester facility, however, Best Management Practices used to control erosion will be employed to prevent adverse impacts.

The roads on site will be gravel, and there will be single access onto 208<sup>th</sup> Ave. SE.

Because the project site is flat, there should be no significant erosion impacts during operation of the facility.

The lagoon and digester facility will be contained. Operational impacts to water quality should not occur from the lagoon and digester if operational guidelines are followed properly.

King County Planning will review the SEPA application for consistency with state and local regulation including but not limited to SEPA, Building Code, Fire Code, and from a preliminary standpoint, the proposal appears to be consistent with those regulations

A Storm Water Construction General Permit will be filed with the Department of Ecology. Department of Ecology is expected to issue a Construction Stormwater General Permit which explains general permit requirements and conditions the client must meet in order to satisfy the permit. Those conditions likely will include weekly visual inspections of the site and inspection by a Certified Erosion and Sediment Control Lead and sampling of stormwater discharge.

Ecology's Water Quality Program encourages AD operators to apply for Water Quality Discharge Permits. As long as all discharges are prevented, the digester operation and land application at agronomic rates of AD effluent may be done under other applicable laws and regulations, for example dairies must comply with the Dairy Nutrient Management Program of Ch 90.64 RCW.

Water Quality Discharge Permits (NPDES and/or State Waste Discharge Permits) are required for all discharges of polluting or waste materials to waters of the state. Waters of the state include surface waters and ground waters. Depending on the type of feed stocks accepted for a manure digester, the operator may be able to manage the digested effluents through land application at agronomic rates thus preventing discharges.

Washington State Department of Ecology Facilities Specialist Kara Stewart, Waste 2 Resources program reviewed the proposal and indicated their program has no comments on the NEPA application.

The application states that the digester facility "will comply with the Department of Ecology's Guidelines for Operating an Anaerobic Digester Exempt from Solid Waste Permitting." This document is Ecology

publication no 09-07-029, located at  
<http://www.ecy.wa.gov/biblio/0907029.html>.

The applicant must submit to Ecology a notification of intent to operate an exempt agricultural anaerobic digester no less than 30-days prior to startup of the operation. The notification form is available at <http://www.ecy.wa.gov/biblio/ecy070356.html>. At that time the W2R program will review the operation to assess compliance with the conditions of the solid waste handling permit exemption.

Any intent to sell post-digested liquid or solids into various soil amendment markets (mentioned in Project Description) requires pre-approval by W2R in order for the digester to remain in compliance with the solid waste handling permit exemption.

**12.0 Compliance with Executive order 11990- Protection of Wetlands, USDA Regulation 9500-3 Land Use Policy, Public Law 99-198, Food Security Act of 1985, Wetland Conservation and applicable sections of the 1990 Farm Bill:**

According to USGS Maps and USFW National Inventory Maps, no wetlands exist at this site.

**13.0 Compliance with Wild and Scenic Rivers Act:**

Washington State currently has three designated Federal Wild and Scenic Rivers, those having been described as:

Skagit River: The segment from pipe line at Sedro-Wooley to and including the mouth of Bacon Creek.

Cascade River: From the mouth to the junction of the north and south Forks: the south fork to the boundary of Glacier Peak Wilderness Area:

Suiattle River: From the mouth to the junction of Elliott Creek; north fork of Sauk River from its junction with the south fork and the Sauk to the boundary of Glacier Peak Wilderness Area. (See exhibit 22)

No portion of this site is within one of these three designated rivers.

#### **14.0 Compliance with the Wilderness Act of 1964:**

The act views wilderness areas as “generally larger than 5000 acres that have retained their primeval character”. Washington State has 30 wilderness areas managed by four federal agencies. Local comprehensive plans do not indicate any wilderness areas in the vicinity of the project.

#### **15.0 Compliance with Intergovernmental Review Process:**

King County does not participate in the Washington Intergovernmental Review Process.

## SECTION II

### Other Environmental Factors and Concerns

#### 1.0 Hazardous Substances- Waste

There are no hazardous wastes or radioactive wastes identified on or near this project area per the EPA Hazardous Sites List.

There is no asbestos present at and there are no underground storage tanks on the site.

Main sources of solid wastes or solid products generated at the facility include construction debris generated during the construction period and solid material separated from digester effluent during operations.

The quantity of construction debris is estimated as equal to or less than a truck-load per day. Construction debris will be hauled away to a licensed landfill site for disposal.

Solids in the digester effluent would not be disposed of as solid waste; rather they will be transported to a composting area in the enclosed building for drying and eventual sale as bedding or soil amendment.

Any manure digester will be reviewed for consistency with state and local regulation including but not limited to SEPA, Building Code, Fire Code, and from a preliminary standpoint, the proposal appears to be consistent with those regulations.

#### 2.0 Radioactive Waste

In 1988, Ecology created a new Nuclear Waste Program to deal specifically with Hanford-related activities and cleanup, and other sources of mixed radioactive and chemically hazardous wastes. The focus of the NWP is Hanford, but the program also has regulatory responsibility for mixed wastes generated at the Puget Sound Naval Shipyard and commercial facilities in the Tri-Cities area, and the program oversees disposal and policy issues concerning commercial low-level radioactive wastes. This project will not generate radioactive waste.

### **3.0 Underground Storage**

There are no known underground storage tanks at this location. Should a tank be encountered, appropriate removal and groundwater monitoring would be conducted.

### **4.0 Radon Gas**

Radon is a chemically inert radioactive element found in soils and rocks that make up the earth's crust. Because it is a gas, it can easily move thorough soil and water into the atmosphere. Most of the higher levels of radon have been found in Northeastern Washington due to the naturally occurring radium in the soil and rock. Western Washington does not appear to have significant radon levels. The only way to know is to test. No Federal standards for radon gas exist. State requirements are regulated by Indoor Air Quality and Uniform Building Codes. Should there be a concern regarding radon gas in the future, the applicants will ventilate the building and seal entry points to eliminate entry into the building.

### **5.0 Asbestos**

No buildings exist on the site; therefore the risk of asbestos is highly unlikely and not anticipated after construction.

### **6.0 Geological Hazards and Constraints:**

In addition to any permit requirements, Andgar, the design/build contractor on the project, has implemented design characteristics intended to mitigate the results from any seismic activity.

There would be no vibrations caused by the use of this structure except possibly during the construction phase. There will be some minor vibration caused during preparation of soils and foundation construction; however this inconvenience would be limited to reasonable daylight hours.

### **7.0 Lead Hazards:**

Lead can be found in drinking water and in household paint. No drinking water is planned at this site and no buildings exist on the site, therefore the risk of lead hazards is not anticipated.

## **8.0 Clandestine Drug Labs:**

No buildings exist on the site; therefore the risk of clandestine drug activity is highly unlikely and not anticipated after construction.

## **9.0 Mold:**

No buildings exist on the proposed site; therefore the risk of mold hazards is not anticipated.

## **10.0 Compliance with Title III of the Energy and Conservation and Production Act:**

There will be no negative impacts to energy resource supplies. The project is an energy generating project that will utilize a portion of the energy produced on the farm, provide waste heat to provide excess production to the grid for sale. The project will not consume energy, but conserve and add to the supplies already available. The plans call for a sustained yield of energy at 750kW through the production of methane gas to be burned in a power generation unit.

## **11.0 Compliance with Subpart B on Noise Abatement and Control:**

Next to the digester will sit an approximately 45 x 45 pre-engineered steel mechanical building that houses the control equipment, electrical transfer equipment, and up to two sixteen-cylinder continuous duty gensets that run on methane with a combined output of 1.5 megawatts. The initial installation will include only a single, 750 kW generator (commonly referred to as a “genset”). Excess methane gas from the digester is flared so that no combustible gas will be stored on site.

There will also be a roughly 45 x 25 covered area beside the mechanical building for storing digested fiber and a 20 x 75 concrete slab for electrical auxiliary equipment.

The facility will receive manure from up to 2,000 milking cows on 4-8 partner farms via truck. Processed manure will be returned via return trips on the truck. Approximately 10 round trips per day each consisting of an average of eight miles will be necessary to supply the digester. The facility

will also receive food waste via truck at the rate of approximately one load per day. The facility will comply with Dept of Ecology guidelines for processing food waste in ag-exempt anaerobic digesters and will obtain an air emissions permit from the Northwest Clean Air Agency. The facility will also generate approximately one truck round trip per day for the hauling of digested fiber to farms. This type of truck traffic is within norms for agricultural operations in the area. Impacts from the construction and operations of the Anaerobic Digester Project are expected to be small.

## **12.0 Socioeconomics and Environmental Justice**

Socioeconomic impacts include employment of a full time operator and potential part time worker. No new or a small change to truck driver labor would occur since the farmers are currently trucking the material for disposal. Other impacts include the sale of the electric power to the grid and sale of soil amendments. Socioeconomic impacts are expected to be positive.

No impacts to communities with high percentage of minority and low-income populations were identified that would experience impacts exceeding those identified for the general population. Disproportionately high and adverse impacts would be unlikely as a result of the Proposed Action.

## **13.0 Reaction to Project**

### **A. Public Comments and Responses-**

No stated objections to this project have been received to date. All persons contacted are supportive of a project that will reduce odors, improve air quality and produce energy.

A Preliminary Notice of Possible Impact to Important Land Resource was published the week of May 19 and May 26, 2010 to allow for additional public comment and responses. No responses have been received by the RD office.

### **B. Letters of Support:**

Letters of support have been submitted by King County Water and Land Resources Division, King County Conservation District, King County Agriculture Commission, Middle Green River Coalition, Mid-Puget Fisheries Enhancement Group and Muckleshoot Indian Tribe.

#### **14.0 Cumulative Impacts, Unavoidable Adverse Impacts; Short-Term Uses and Long-Term Productivity; and Irretrievable commitments of Resources:**

This project would convert farmland used to grow livestock feed to an anaerobic digester facility. Project is located across the street from existing farms and except for a small increase in traffic no other known cumulative impacts, direct or indirect, are expected.

Short-term versus long-term effects are minor. Long term effects of the proposed action are positive. The project is needed to generate electricity while reducing emissions of carbon dioxide from fossil fuel combustion as well as to offer an alternative method to dispose of livestock manure that reduces emissions of methane, and improves air and water quality.

Irreversible/irretrievable impacts are small. Current land that is being used for agriculture will be converted to a facility that will support local agriculture thereby reducing emissions of methane and improving air and water quality.

#### **15.0 Alternatives:**

##### **A. Alternate Locations:**

Alternative locations were not included because of the required proximity of the proposed project to the farms as a source of input material. In particular, it is close to the source of a large portion of the raw materials to be provided. Any other site would require extensive construction for roads, power and distribution lines as well as removal of a site from food crop production. The proposed project requires the least impact to land and other resources since it is immediately adjacent to the primary farm and close to the neighboring farms.

##### **B. Alternate Designs;**

The plug-flow digester design is the most time tested and efficient of the three digester systems currently in use. Use of an alternate design would result in less efficiency and less energy output, which would obviate the need for the project.

**C. Alternate Projects with Similar Benefits:**

Alternate projects with similar benefits were considered in the design phase of the project and found to be acceptable in general environmental terms; however, the chosen system has a proven track record for production efficiency and ease of operation and maintenance.

**D. No Action Alternative:**

The no-action alternative is to not fund this project. By taking no action the farmers will continue to apply untreated manure to their fields. No energy would be generated and no odor would be mitigated.

This project meets the RD Business Program loan criteria and is an eligible entity. Environmental and funding criteria have been met...

**16.0 Mitigation Measures:**

Mitigation Measures recommended are reasonable and follow regulatory agencies direction to minimize adverse comments and concerns. Mitigation measures will appear in the USDA Letter of Conditions, or other financing instruments which offers RD's commitment for this project. A copy of the mitigation measures will be sent to the engineer, architect, or other representative of the applicant, to help ensure that these measures are incorporated into the project's development plans as appropriate. The mitigation measures described in this section and, any others determined during USDA's decision processes, will become a commitment for the applicant to meet. Measures include:

1. Pollution control measures and safety measures in the design and operating procedures to mitigate impacts resulting from potential hydrogen sulfide and ammonia gas releases.
2. Construction activities will be scheduled to reduce traffic, dust and noise impacts in residential areas. Equipment shall not be operated without proper mufflers or other noise suppressers as appropriate for the type of equipment involved. Equipment must meet current State of Washington regulations for noise.
3. Daily operation of equipment and construction shall comply with the Maximum Environmental Noise Levels chapter of 173-60

WAC and King County Codes. Public roadways will be swept daily so as to leave no excavation material on driving surfaces.

4. Construction hours to be monitored. Normal construction hours to be Monday through Friday, not to exceed 7:00am to 5:00pm. (Or daylight hours depending on county restrictions).
5. Berming will be utilized to guard against excess surface runoff and erosion entering off site area. Grass swales will be placed to control surface runoff and erosion. Cuts will be kept to a minimum and fills will not be required. Storm water run-off from roofs and storm surfaces will be directed to drainage swales. Site grading will provide for surface run-off as required by King County building requirements.
6. The digester operational plan will include a response plan in case of a catastrophic event.
7. An engineered compaction soils report will be required for all structures placed on fill material.
8. Temporary erosion/ sedimentation control measures will be established in accordance with the King County Department of Public Works.
9. Northwest Clean Air Agency requirements will be complied with, including filing an application for an Order of Approval to Construct (OAC) permit prior to construction.
10. The applicant will comply with any provisions of the King County Drainage Ordinances.
11. The applicant will comply with all relevant provisions of the King County Critical Areas Ordinance.
12. Any Fire Marshal and King County Health Department requirements will be met.
13. WAD 173-201A and 173-200 will be complied with as required to address surface water quality issues and ground water issues and permit conditions will be met. Weekly visual site inspections to ensure best management practices shall be utilized to prevent interference with and/or degradation of water quality and to control soil erosion. Whenever possible, the site's storm

water will be directed into the digester tank. A Stormwater Pollution Prevention Plan will be on site prior to start of construction.

14. An Unanticipated Discovery Plan (UDP) must be in place before a Notice to Proceed is issued. In the event that any ground-disturbing activities in any future development uncover protected cultural materials (e.g., bones, shell, and stone tools), all work in the immediate vicinity should stop, the area should be secured, and any equipment moved to a safe distance away from the location. Then the contractor or landowner should contact the Department of Archaeology and Historic Preservation (Robert Whitlam 360-586-3080), a professional and qualified archaeologist, and the Muckleshoot Indian Tribe (Laura Murphy, Tribal Archaeologist 253-867-3272) immediately in order to help assess the situation and determine how to preserve the resources. Compliance with all applicable laws pertaining to archaeological resources is required.
  
15. If earth disturbing activities during any area of the project uncover human remains, all work shall cease immediately in accordance with the Native American Graves Protection and Repatriation Act of 1990 (NAGPRA) and state statues RCW 27.44. The area around the discovery shall be secured and the King County Sheriff's Department (260-296-4155) and the King County Medical Examiner's office (206-731-3232) shall be contacted to determine if the remains are forensic in nature. If the remains are not forensic in nature, the Department of Archaeology and Historic Preservation (Guy Tasa, Physical Anthropologist 360-586-3534) will take the lead on managing the remains.
  
16. Updated nutrient management plans will be required for the receiving farms.
  
17. Submit to Ecology a notification of intent to operate an exempt agricultural anaerobic digester and comply with all conditions of Ecology publication # 09-07-029, *Guidelines for Operations an Anaerobic Digester Exempted from Solid Waste Handling Permit*. Provide all necessary design, operational and record keeping documents to demonstrate compliance.

18. Client will obtain necessary permits from local and other governmental agencies.

19. Work in public right-of-ways shall have all necessary permits.

**17.0 Environmental Determinations:**

Based on an examination and review of the foregoing information and such supplemental information attached hereto, the proposal is consistent with USDA Rural Development environmental policies.

I recommend that the approving official determine that this project will not have a significant effect on the quality of the human environment.

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Preparer-Sharon A. Exley/ Business Programs Specialist

Date 9/1/2010

USDA- Rural Development  
Form RD 1940-21  
(Rev. 6-88)

ENVIRONMENTAL ASSESSMENT FOR CLASS I ACTION

1. Description

- a. Name of Project: Rainier Biogas LLC
- b. Project Number: WA 125029042
- c. Location: 43218 208th Ave. SE., Enumclaw, WA 98022

2. Protected Resources

The following land uses or environmental resources will either be affected by the proposal or are located within the project site. (Check appropriate box for every item of the following checklist. If more than one item is checked "yes" the environmental assessment format for a Class II action must be completed, except if the action under review is either (1) an application for a Housing Preservation Grant or (2) normally a categorical exclusion that has lost its exclusion status. The reviewer should not initiate the Assessment for a Class I action when it is obvious that the assessment format for a Class II will be required.)

	YES	NO
a. Wetlands	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b. Floodplains	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c. Wilderness (designated or proposed under the Wilderness Act)	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d. Wild or Scenic River (proposed or designated under the Wild and Scenic Rivers Act)	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e. Historical, Archeological Sites (listed on the National Register of Historical Places or which may be eligible for listing)	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f. Critical Habitat or Endangered/Threatened Species (listed or proposed)	<input type="checkbox"/>	<input checked="" type="checkbox"/>
g. Coastal Barrier included in Coastal Barrier Resources System	<input type="checkbox"/>	<input checked="" type="checkbox"/>
h. Natural Landmark (Listed on National Registry of Natural Landmarks)	<input type="checkbox"/>	<input checked="" type="checkbox"/>
i. Important Farmlands	<input type="checkbox"/>	<input checked="" type="checkbox"/>
j. Prime Forest Lands	<input type="checkbox"/>	<input checked="" type="checkbox"/>
k. Prime Rangeland	<input type="checkbox"/>	<input checked="" type="checkbox"/>
l. Approved Coastal Zone Management Area	<input type="checkbox"/>	<input checked="" type="checkbox"/>
m. Sole Source Aquifer Recharge Area (designated by Environmental Protection Agency)	<input type="checkbox"/>	<input checked="" type="checkbox"/>

For an item checked "yes", I have attached as Exhibit I both the necessary documentation to demonstrate compliance with the Agency's requirements for the protection of the resource and a discussion setting forth the reasons why the potential impact on the resource is not considered to be significant. If item e. is checked "no", the results of the consultation process with the State Historic Preservation Officer is also attached.

3. General Impacts

I have reviewed the environmental data submitted, dated and signed by the applicant as well as any previously completed environmental impact analysis and conclude the following:

- a. The project, the project area, and the primary beneficiaries are adequately identified;
- b. No incompatible land uses will be created nor direct impacts to parks, beaches, dunes, barrier islands, or important wildlife habitats or recreational areas; and
- c. Only minimal impacts or no impacts will result to the following checked items:

- |  |  |
|--|--|
| <input checked="" type="checkbox"/> Air Quality            | <input checked="" type="checkbox"/> Wildlife             |
| <input checked="" type="checkbox"/> Water Quality          | <input checked="" type="checkbox"/> Energy               |
| <input checked="" type="checkbox"/> Solid Waste Management | <input checked="" type="checkbox"/> Construction Impacts |
| <input checked="" type="checkbox"/> Transportation         | <input checked="" type="checkbox"/> Secondary Impacts    |
| <input checked="" type="checkbox"/> Noise                  |  |

An analysis of an item which cannot be checked, therefore having a potential for more than minimal impacts, is attached as Exhibit \_\_\_\_\_. (If more than one item is unchecked, the environmental assessment format for a Class II action must be completed.)

4. State, Regional and/or Local Government Consultation

Yes  No This project is subject to review State, regional, or local agencies under requirements of Executive Order 12372, Intergovernmental Review of Federal Programs.

If "yes" is checked, complete (a), or (b), or (c). (If negative environmental comments have been received, the environmental assessment format for a Class II action must be completed.)

- a.  The review period has expired and no comments were received.
- b.  No negative comments of an environmental nature were received and the review period is complete, with the comments attached.
- c.  Negative comments of an environmental nature have been received.

5. Controversy

Yes  No This action is controversial for environmental reasons or is the subject of an environmental complaint. If yes, check on of the following:

- The action is the subject of isolated environmental complaints or questions have been raised which focus on a single impact. Attached as Exhibit \_\_\_\_ is an analysis of the complaint or questions, and no further analysis is considered necessary.

6. Cumulative Impacts

Yes  No The cumulative impacts of this action and other Rural Development actions, of the federal actions, or related nonfederal actions exceed the criteria for a Class I action; or the action represents a phase or segment of a larger project, the latter which exceeds the criteria for a Class I action.

7. Need for the Project and Alternatives to it

Attached as Exhibit \_\_\_\_ is a brief statement of Rural Development's position regarding the need for the project. Also, briefly discussed are (a) the alternatives which have been considered by the applicant and Rural Development and (b) the environmental impacts of these alternatives. Alternatives include alternative locations, alternative designs, alternative projects having similar benefits, and no action.

**8. Measures to Avoid or Mitigate Adverse Environment Impacts**

- Yes  No Mitigation measures are required. Attached as Exhibit \_\_\_\_ is a description of the site or design change that the applicant has agreed to make as mitigation measures that will be placed as special condition within the offer or financial assistance or subdivision approval.

**9. Compliance With Highly Erodible Land and Wetland Conservation Requirements**

- Yes  No This action is subject to the highly erodible land and wetland conservation requirements contained in Exhibit M of RD Instruction 1940-G

If "yes" is checked, please complete (a), (b), (c), and (d).

a. Attached as Exhibit \_\_\_\_ is a completed Form SCS-CPA-026 which documents the following:

- Yes  No Highly erodible land is present on the farm property.  
 Yes  No Wetland is present on the farm property.  
 Yes  No Converted wetland is present on the farm property.

b.  Yes  No This action qualifies for the following exemption allowed under Exhibit M:

\_\_\_\_\_  
\_\_\_\_\_

c.  Yes  No The applicant must complete the following requirements prior to approval of the action in order to retain or regain its eligibility for Agency financial assistance:

\_\_\_\_\_  
\_\_\_\_\_

d.  Yes  No Under the requirements of Exhibit M, the applicant's proposed activities are eligible for Agency financial assistance.

10. Environmental Determinations

The following recommendations shall be completed and the environmental reviewer shall sign the assessment in the space provided below.

a. Based on an examination and review of the foregoing information and such supplemental information attached hereto, I recommend that the approving official determine that this project:

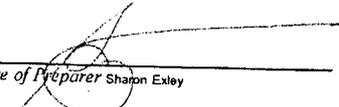
- will have significant effect on the quality of the human environment and an Environmental Impact Statement must be prepared;
- will not have a significant effect on the quality of the human environment;
- will require further analysis through completion of the assessment format for a Class II action.

b. I recommend that the approving official make the following compliance determinations for the below listed environmental requirements.

Not In Compliance	In Compliance	
<input type="checkbox"/>	<input checked="" type="checkbox"/>	Clean Air Act
<input type="checkbox"/>	<input checked="" type="checkbox"/>	Federal Water Pollution Control Act
<input type="checkbox"/>	<input checked="" type="checkbox"/>	Safe Drinking Water Act-Section 1424(e)
<input type="checkbox"/>	<input checked="" type="checkbox"/>	Endangered Species Act
<input type="checkbox"/>	<input checked="" type="checkbox"/>	Coastal Barrier Resources Act
<input type="checkbox"/>	<input checked="" type="checkbox"/>	Coastal Zone Management Act-Section 307(c)(1) and (2)
<input type="checkbox"/>	<input checked="" type="checkbox"/>	Wild and Scenic Rivers Act
<input type="checkbox"/>	<input checked="" type="checkbox"/>	National Historic Preservation Act
<input type="checkbox"/>	<input checked="" type="checkbox"/>	Archeological and Historic Preservation Act
<input type="checkbox"/>	<input checked="" type="checkbox"/>	Highly Erodible Land and Wetland Conservation, Food Security Act
<input type="checkbox"/>	<input checked="" type="checkbox"/>	Executive Order 11988, Floodplain management
<input type="checkbox"/>	<input checked="" type="checkbox"/>	Executive Order 11990, Protection of Wetlands
<input type="checkbox"/>	<input checked="" type="checkbox"/>	Farmland Protection Policy Act
<input type="checkbox"/>	<input checked="" type="checkbox"/>	Departmental Regulation 9500-3, Land Use Policy
<input type="checkbox"/>	<input checked="" type="checkbox"/>	State Office National Resource Management Guide

c. I have reviewed and considered the types and degrees of adverse environmental impacts identified by the assessment. I have also analyzed the proposal for its consistency with Rural Development environmental policies, particularly those related to land use, and have considered the potential benefits of the proposal. Based upon a consideration and balancing of these factors, I recommend from an environmental standpoint that the project

- be approved
- not be approved because of the attached reason (see Exhibit \_\_\_\_\_)

  
 \_\_\_\_\_  
*\*Signature of Preparer Sharon Exley*

\_\_\_\_\_  
 Title Business Programs Specialist

6/25/2010  
 \_\_\_\_\_  
 Date

\*See Section 1940.302 for listing of officials responsible for preparing assessment.

*[Handwritten Signature]*  
 Signature of Concurring Official<sup>1</sup>  
 Title BCP Director

6/28/10  
 Date

I have reviewed the environmental assessment and supporting documentation. Following are my positions regarding its adequacy and the recommendations reached by the preparer. For any matter in which I do not concur, my reasons are attached as Exhibit \_\_\_\_.

- |                          |                                     |                                    |
|--------------------------|-------------------------------------|------------------------------------|
| Do not                   |                                     |                                    |
| Concur                   | Concur                              |                                    |
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | Adequate Assessment                |
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | Environmental Impact Determination |
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | Compliance Determination           |
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | Project Recommendation             |

*[Handwritten Signature]*  
 Signature of State Environmental Coordinator<sup>2</sup>

6/28/10  
 Date

<sup>1</sup> See Section 1940.316 for both the instances when a concurring official must sign the assessment and who is authorized to sign as the concurring official.

<sup>2</sup> See Section 1940.316 for instances when State Environmental Coordinator's review is required.

## Mitigation Measures

Mitigation measures recommended are reasonable and follow regulatory agencies direction to minimize adverse comments and concerns. Mitigation measures must appear in the LOC, or other financing instruments which offer RD's commitment for this project. In addition, please send a copy of the mitigation measures to the engineer or other representatives of the applicant, to help ensure that these measures are incorporated into the project development plans as appropriate.

1. Equipment must meet current State of Washington regulations for noise.
2. Construction activities will be scheduled to reduce traffic, dust and noise impacts in residential areas.
3. Ground-breaking work on the project cannot occur until there is adequate time for the Tribes to respond to the cultural resource survey (CRS). This would be at least until July 20, 2010, approximately 30 days from the date the CRS was sent out by USDA. This date could be extended if USDA receives comments from Tribes that would need to be addressed.
4. An Unanticipated Discovery Plan (UDP) must be "in place" before Notice to Proceed is issued. If earth disturbing activities during project construction uncover cultural materials (i.e. structural remains, historic artifacts, or prehistoric artifacts), all work shall cease and the Washington State Archaeologist at the Department of Archaeology and Historic Preservation (DAHP), the interested tribes and the RD State Environmental Coordinator (SEC) shall be notified immediately.
5. If earth disturbing activities during any area of the project uncover human remains, all work shall cease immediately in accordance with Washington State Statutes RCW 27.44. The area around the discovery shall be secured and the King County Coroner, State Archeologist at DAHP and the RD SEC shall be notified immediately.
6. Client to obtain necessary permits from local and other governmental agencies.
7. Work in public right-of-ways shall have all necessary permits.



STATE OF WASHINGTON

**DEPARTMENT OF ARCHAEOLOGY & HISTORIC PRESERVATION**

1063 S. Capitol Way, Suite 106 • Olympia, Washington 98501  
Mailing address: PO Box 48343 • Olympia, Washington 98504-8343  
(360) 586-3065 • Fax Number (360) 586-3067 • Website: [www.dahp.wa.gov](http://www.dahp.wa.gov)

June 21, 2010

Ms. Janice Roderick  
USDA—Rural Development  
1835 Black Lake Blvd., SW, Suite B  
Olympia, Washington 98512-5716

Re: Rainier Biogas Facility Project  
Log No: 051710-02-USDA-RD

Dear Ms. Roderick:

Thank you for contacting our Department. We have reviewed the materials you provided for the proposed Rainier Biogas Facility Project at 43218 208<sup>th</sup> Avenue SE, Enumclaw, King County, Washington.

We concur with the determination of No Historic Properties Affected.

We would appreciate receiving any correspondence or comments from concerned tribes or other parties that you receive as you consult under the requirements of 36CFR800.4(a)(4).

These comments are based on the information available at the time of this review and on the behalf of the State Historic Preservation Officer in conformance with Section 106 of the National Historic Preservation Act and its implementing regulations 36CFR800. Should additional information become available, our assessment may be revised.

In the event that archaeological or historic materials are discovered during project activities, work in the immediate vicinity must stop, the area secured, and the tribes' cultural departments and this department notified. Thank you for the opportunity to comment and a copy of these comments should be included in subsequent environmental documents.

Sincerely,

Robert G. Whitlam, Ph.D.  
State Archaeologist  
(360) 586-3080  
email: [rob.whitlam@dahp.wa.gov](mailto:rob.whitlam@dahp.wa.gov)



**USDA- Rural Development**  
Form RD 1940-21  
(Rev. 6-88)

**ENVIRONMENTAL ASSESSMENT FOR CLASS I ACTION**

**1. Description**

- a. Name of Project: Rainier Biogas LLC
- b. Project Number: ~~125~~ 125029042
- c. Location: 43218 208th Ave. SE., Enumclaw, WA 98022

**2. Protected Resources**

The following land uses or environmental resources will either be affected by the proposal or are located within the project site. (Check appropriate box for every item of the following checklist. If more than one item is checked "yes" the environmental assessment format for a Class II action must be completed, except if the action under review is either (1) an application for a Housing Preservation Grant or (2) normally a categorical exclusion that has lost its exclusion status. The reviewer should not initiate the Assessment for a Class I action when it is obvious that the assessment format for a Class II will be required.)

	YES	NO
a. Wetlands	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b. Floodplains	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c. Wilderness (designated or proposed under the Wilderness Act)	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d. Wild or Scenic River (proposed or designated under the Wild and Scenic Rivers Act)	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e. Historical, Archeological Sites (listed on the National Register of Historical Places or which may be eligible for listing)	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f. Critical Habitat or Endangered/Threatened Species (listed or proposed)	<input type="checkbox"/>	<input checked="" type="checkbox"/>
g. Coastal Barrier included in Coastal Barrier Resources System	<input type="checkbox"/>	<input checked="" type="checkbox"/>
h. Natural Landmark (Listed on National Registry of Natural Landmarks)	<input type="checkbox"/>	<input checked="" type="checkbox"/>
i. Important Farmlands	<input type="checkbox"/>	<input checked="" type="checkbox"/>
j. Prime Forest Lands	<input type="checkbox"/>	<input checked="" type="checkbox"/>
k. Prime Rangeland	<input type="checkbox"/>	<input checked="" type="checkbox"/>
l. Approved Coastal Zone Management Area	<input type="checkbox"/>	<input checked="" type="checkbox"/>
m. Sole Source Aquifer Recharge Area (designated by Environmental Protection Agency)	<input type="checkbox"/>	<input checked="" type="checkbox"/>

For an item checked "yes", I have attached as Exhibit I both the necessary documentation to demonstrate compliance with the Agency's requirements for the protection of the resource and a discussion setting forth the reasons why the potential impact on the resource is not considered to be significant. If item e. is checked "no", the results of the consultation process with the State Historic Preservation Officer is also attached.

**3. General Impacts**

I have reviewed the environmental data submitted, dated and signed by the applicant as well as any previously completed environmental impact analysis and conclude the following:

- a. The project, the project area, and the primary beneficiaries are adequately identified;
- b. No incompatible land uses will be created nor direct impacts to parks, beaches, dunes, barrier islands, or important wildlife habitats or recreational areas; and
- c. Only minimal impacts or no impacts will result to the following checked items:

- |  |  |
|--|--|
| <input checked="" type="checkbox"/> Air Quality            | <input checked="" type="checkbox"/> Wildlife             |
| <input checked="" type="checkbox"/> Water Quality          | <input checked="" type="checkbox"/> Energy               |
| <input checked="" type="checkbox"/> Solid Waste Management | <input checked="" type="checkbox"/> Construction Impacts |
| <input checked="" type="checkbox"/> Transportation         | <input checked="" type="checkbox"/> Secondary Impacts    |
| <input checked="" type="checkbox"/> Noise                  |  |

An analysis of an item which cannot be checked, therefore having a potential for more than minimal impacts, is attached as Exhibit \_\_\_\_\_. (If more than one item is unchecked, the environmental assessment format for a Class II action must be completed.)

**4. State, Regional and/or Local Government Consultation**

Yes  No This project is subject to review State, regional, or local agencies under requirements of Executive Order 12372, Intergovernmental Review of Federal Programs.

If "yes" is checked, complete (a), or (b), or (c). (If negative environmental comments have been received, the environmental assessment format for a Class II action must be completed.)

- a.  The review period has expired and no comments were received.
- b.  No negative comments of an environmental nature were received and the review period is complete, with the comments attached.
- c.  Negative comments of an environmental nature have been received.

**5. Controversy**

Yes  No This action is controversial for environmental reasons or is the subject of an environmental complaint. If yes, check on of the following:

- The action is the subject of isolated environmental complaints or questions have been raised which focus on a single impact. Attached as Exhibit \_\_\_\_ is an analysis of the complaint or questions, and no further analysis is considered necessary.

**6. Cumulative Impacts**

Yes  No The cumulative impacts of this action and other Rural Development actions, of the federal actions, or related nonfederal actions exceed the criteria for a Class I action; or the action represents a phase or segment of a larger project, the latter which exceeds the criteria for a Class I action.

**7. Need for the Project and Alternatives to it**

Attached as Exhibit \_\_\_\_ is a brief statement of Rural Development's position regarding the need for the project. Also, briefly discussed are (a) the alternatives which have been considered by the applicant and Rural Development and (b) the environmental impacts of these alternatives. Alternatives include alternative locations, alternative designs, alternative projects having similar benefits, and no action.

**8. Measures to Avoid or Mitigate Adverse Environment Impacts**

- Yes     No    Mitigation measures are required. Attached as Exhibit \_\_\_\_ is a description of the site or design change that the applicant has agreed to make as mitigation measures that will be placed as special condition within the offer or financial assistance or subdivision approval.

**9. Compliance With Highly Erodible Land and Wetland Conservation Requirements**

- Yes     No    This action is subject to the highly erodible land and wetland conservation requirements contained in Exhibit M of RD Instruction 1940-G

If "yes" is checked, please complete (a), (b), (c), and (d).

a. Attached as Exhibit \_\_\_\_ is a completed Form SCS-CPA-026 which documents the following:

- Yes     No    Highly erodible land is present on the farm property.  
 Yes     No    Wetland is present on the farm property.  
 Yes     No    Converted wetland is present on the farm property.

b.  Yes     No    This action qualifies for the following exemption allowed under Exhibit M:

\_\_\_\_\_  
\_\_\_\_\_

c.  Yes     No    The applicant must complete the following requirements prior to approval of the action in order to retain or regain its eligibility for Agency financial assistance:

\_\_\_\_\_  
\_\_\_\_\_

d.  Yes     No    Under the requirements of Exhibit M, the applicant's proposed activities are eligible for Agency financial assistance.

10. Environmental Determinations

The following recommendations shall be completed and the environmental reviewer shall sign the assessment in the space provided below.

a. Based on an examination and review of the foregoing information and such supplemental information attached hereto, I recommend that the approving official determine that this project:

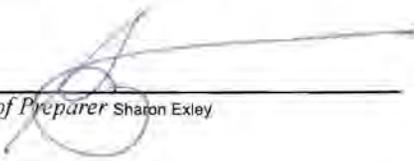
- will have significant effect on the quality of the human environment and an Environmental Impact Statement must be prepared;
- will not have a significant effect on the quality of the human environment;
- will require further analysis through completion of the assessment format for a Class II action.

b. I recommend that the approving official make the following compliance determinations for the below listed environmental requirements.

Not In Compliance	In Compliance	
<input type="checkbox"/>	<input checked="" type="checkbox"/>	Clean Air Act
<input type="checkbox"/>	<input checked="" type="checkbox"/>	Federal Water Pollution Control Act
<input type="checkbox"/>	<input checked="" type="checkbox"/>	Safe Drinking Water Act-Section 1424(e)
<input type="checkbox"/>	<input checked="" type="checkbox"/>	Endangered Species Act
<input type="checkbox"/>	<input checked="" type="checkbox"/>	Coastal Barrier Resources Act
<input type="checkbox"/>	<input checked="" type="checkbox"/>	Coastal Zone Management Act-Section 307(c)(1) and (2)
<input type="checkbox"/>	<input checked="" type="checkbox"/>	Wild and Scenic Rivers Act
<input type="checkbox"/>	<input checked="" type="checkbox"/>	National Historic Preservation Act
<input type="checkbox"/>	<input checked="" type="checkbox"/>	Archeological and Historic Preservation Act
<input type="checkbox"/>	<input checked="" type="checkbox"/>	Highly Erodible Land and Wetland Conservation, Food Security Act
<input type="checkbox"/>	<input checked="" type="checkbox"/>	Executive Order 11988, Floodplain management
<input type="checkbox"/>	<input checked="" type="checkbox"/>	Executive Order 11990, Protection of Wetlands
<input type="checkbox"/>	<input checked="" type="checkbox"/>	Farmland Protection Policy Act
<input type="checkbox"/>	<input checked="" type="checkbox"/>	Departmental Regulation 9500-3, Land Use Policy
<input type="checkbox"/>	<input checked="" type="checkbox"/>	State Office National Resource Management Guide

c. I have reviewed and considered the types and degrees of adverse environmental impacts identified by the assessment. I have also analyzed the proposal for its consistency with Rural Development environmental policies, particularly those related to land use, and have considered the potential benefits of the proposal. Based upon a consideration and balancing of these factors, I recommend from an environmental standpoint that the project

- be approved
- not be approved because of the attached reason (see Exhibit \_\_\_\_.)

  
 \_\_\_\_\_  
 \*Signature of Preparer Sharon Exley

6/25/2010  
 \_\_\_\_\_  
 Date

Title Business Programs Specialist

\*See Section 1940.302 for listing of officials responsible for preparing assessment.

\_\_\_\_\_  
*Signature of Concurring Official*<sup>1</sup>

\_\_\_\_\_  
*Date*

\_\_\_\_\_  
*Title*

I have reviewed the environmental assessment and supporting documentation. Following are my positions regarding its adequacy and the recommendations reached by the preparer. For any matter in which I do not concur, my reasons are attached as Exhibit \_\_\_\_.

Do not  
Concur

Concur

Adequate Assessment  
Environmental Impact Determination  
Compliance Determination  
Project Recommendation

\_\_\_\_\_  
*Signature of State Environmental Coordinator*<sup>2</sup>

\_\_\_\_\_  
*Date*

<sup>1</sup> See Section 1940.316 for both the instances when a concurring official must sign the assessment and who is authorized to sign as the concurring official.

<sup>2</sup> See Section 1940.316 for instances when State Environmental Coordinator's review is required.

CLASS 1  
ENVIRONMENTAL  
ASSESSMENT  
ATTACHMENT  
June 25, 2010

RAINIER BIOGAS LLC  
COMMUNITY  
ANAEROBIC MANURE  
DIGESTER

## **PROJECT DESCRIPTION**

**Applicant's Name:** Rainier Biogas LLC  
20206 436<sup>th</sup> St.  
Enumclaw, WA 98022

**Project Title, Size, or Capacity:**  
Anaerobic Digester to be located in Enumclaw, WA.

**Project Number/Case Number:** 125029042

**Location:**  
The Rainier Biogas LLC site will be situated on property located at 43218  
208<sup>th</sup> Ave. SE, Enumclaw, WA 98022

**Legal Description:**

Located on a tract of land identified as parcel ID 202006-9001

**Project Description:**

This project is located in a rural area serving rural residents. It is a proposal to construct a farm based anaerobic digester for processing dairy manure and the production of electrical power in King County. This digester will be located on a tract of farm land located off of 436<sup>th</sup> and 208<sup>th</sup> west of Enumclaw.

Rainier Biogas LLC plans to install an anaerobic manure digester, a concrete receiving pit, a mechanical building with an attached fiber storage area. There will also be one pipeline associated with the project.

A manure digester is a heated, concrete vessel that processes dairy manure and other organic wastes in an oxygen-free environment designed to induce digestion by anaerobic bacteria. Afterwards, the digested fiber solids are separated and dried. The processed manure liquid returns to the farms via truck or pipe and is stored in existing farmers' lagoons and spread on fields in accordance with the Department of Agriculture's Livestock Nutrient Management Program. The digester facility itself will be operated in accordance with the Department of Ecology's Guidelines for Operating an Anaerobic Digester Exempt from Solid Waste Permitting, which allows the importation of limited food-based materials for processing in the digester. The digestion process kills insect larvae, bacteriological pathogens and weed seeds; it greatly reduces manure odor and breaks down macronutrients for faster plant uptake and reduced risk of nitrate runoff. Additionally Rainier Biogas will install post-digestion equipment to remove solids from the manure. This will result in reduction in manure macronutrients phosphorous and nitrogen. The reduced nutrient content of the manure, as well as the reduction of chemical oxygen demand and near-elimination of manure fecal coliform will protect area water quality and also reduce farmer's manure application expenses. The harvested nutrients will meet Washington Class A Biosolids specifications (although they will contain no "biosolids" materials such as human waste) and will be sold into various soil amendment markets or else land-applied as manure on fields that can absorb the nutrients at an agronomic rate.

The digestion process also produces methane-rich biogas which has a variety of uses. The gas will be burned in one a piston engine generator on site to create electricity for export to the Puget Sound Energy electrical grid while also heating the digester vessel to sustain bacteria growth and reduce pathogens.

The digester on this site will measure approximately 75x175 feet. It is 16 feet tall in total and will be buried approximately 8 feet in the ground, or less as limited by the depth of the water table. Earth is piled against the digester on all sides as insulation. The digester will be built by Andgar Corporation, of Ferndale Washington. Andgar has constructed Washington's four operational manure digesters. This digester will be capable of converting animal manure from up to 2000 cows into methane gas used to drive electrical power generators

Next to the digester will sit an approximately 45 X 45 pre-engineered steel mechanical building that houses the control equipment, electrical transfer equipment, and up to two sixteen-cylinder continuous duty gensets that run on methane with a combined output of 1.5 megawatts. The initial installation will include only a single, 750 kW generator (commonly

referred to as a “genset”). Excess methane gas from the digester is flared so that no combustible gas will be stored on site.

There will also be a roughly 45 X 25 covered area beside the mechanical building for storing digested fiber and a 20X 75 concrete slab for electrical auxiliary equipment.

The facility will receive manure from up to 2,000 milking cows on 4-8 partner farms via truck. Processed manure will be returned via return trips on the truck. Approximately 10 round trips per day each consisting of an average of eight miles will be necessary to supply the digester. The facility will also receive food waste via truck at the rate of approximately one load per day. The facility will comply with Dept of Ecology guidelines for processing food waste in ag-exempt anaerobic digesters and will obtain an air emissions permit from the Northwest Clean Air Agency. The facility will also generate approximately one truck round trip per day for the hauling of digested fiber to farms. This type of truck traffic is within norms for agricultural operations in the area.

The proposal is made in response to the Renewable Energy Grant and Loan Program and the Business and Industry Loan Guarantee Program and is consistent with the objectives of the US Department of Agriculture to develop alternative and renewable energy sources and to support creation of new businesses. The project meets criteria for “Green Tags” and is an approved design consistent with the AgSTAR program. AgSTAR is a joint program of the USDA, EPA and DOE designed to encourage the widespread use of livestock manure as an energy source.

**Project Purpose and USDA Rural Development's Position Regarding the Need for the Project:**

The project is needed to generate electricity while reducing emissions of carbon dioxide from fossil fuel combustion as well as to offer an alternative method to dispose of livestock manures that reduces emissions of methane, and improves air and water quality.

The USDA Rural Development’s mission is to enhance the ability of rural communities to develop, to grow, and to improve their quality of life by funding projects that create or preserve quality jobs or promote a clean rural environment. This project adheres to the Rural Development mission.

**Applicant's Contact Person:**

Name: Daryl Maas  
Title: Co-Owner  
Rainier Biogas LLC  
Address: 20206 436<sup>th</sup> St  
Enumclaw, WA 98022  
Phone: (360) 424.4519  
Fax: 360-419.4669

**Rural Development's Contact Person:**

Name: Sharon Exley  
Title: Business Programs Specialist  
Address: 2021 E. College Way, Suite 216  
Mount Vernon, WA 98273  
Phone: (360) 428.4322 x159

**Business and Developments That Will Expand and Benefit Due to the Project:**

The primary beneficiary will be Rainier Biogas LLC, a newly formed business that will benefit by utilizing a portion of the energy produced to run the digester and provide excess production to the grid for sale. Fiber material derived from the digester will be sold to area businesses as a sawdust replacement.

Ritter Dairy, on site, will provide manure for the digester. There are several neighboring farms in a five mile radius that may provide additional manure, however at this time no additional contract have been signed. Manure will be delivered to the digester for processing and in turn the farm will be receiving processed manure liquid to spread on fields in accordance with the Department of Agriculture's Livestock Nutrient Management Plan. Additionally, some fiber will be returned to the dairy for use as cow bedding.

Local area residents and those who work in the general vicinity are expected to benefit by an estimated 90% reduction in odor normally associated with dairy operations.

**Related Activities (Interdependent Parts) of Rural Development Action:**

There are no known related Federal actions that are related or would be affected by this proposal.

**Description of Project Site:**

The project site is an approximately 4 acre parcel of farmland along the west side the city of Enumclaw. It lies within a portion of the NE ¼ of Section 20, Township 20, Range 06 E.W.M. within King County.

The land is flat farmland. Traffic near the site is light and consists largely of agricultural vehicles. There is no known wildlife use of the site.

There are no known streams or ditches on the proposed site.

According to current FEMA flood maps, the site not within the floodplain.

This parcel also contains a small mobile home and some barns. According to NRCS data, the site's soil is 100% Alderwood Gravelly Sandy Loam. Soil compression tests and water table measurements are anticipated but not completed.

**Present Land use of Project site:**

This site is currently in planted with grass and corn which is chopped and stored for cow food, with applications of cow manure between cuttings.

**Surrounding Land Uses:**

The surrounding land is primarily zoned Agricultural and is used as farmland or for isolated homes. The site selected for this project is unique in that it lies near dozens of active dairy farms.

**Surrounding Sensitive Areas:**

The surrounding land is all zoned Agricultural and is used as farmland or isolated homes. The land is flat. There are no known streams or ditches on the proposed site. There is no known wildlife use of the site.

A State Environment Policy Act checklist will be filed within a week of energy grant award. King County Water and Land Resources Division responded in a letter for review and comment that the county has been supportive of this project from its early developmental state. Dairies on the Enumclaw Plateau have been under significant financial pressure from rising costs of animal feed, bedding material and environmentally-sound manure management. At the same time, declining milk prices are reducing revenue. This project seeks to reduce the dairies costs for manure management and bedding while providing environmental benefits through production of renewable energy and improvements in water quality in the Green and Wither River watersheds. These objectives are consistent with the county's environmental stewardship, renewable energy and agricultural policies." regarding a proposed conditional land use permit for the project and states "

Any manure digester will be reviewed for consistency with state and local regulation including but not limited to SEPA, Building Code, Fire Code, and from a preliminary standpoint, the proposal appears to be consistent with those regulations."

# SECTION I

## **I.0 Compliance with Air Quality Requirements**

An email response was received from Claude Williams of Northwest Clean Air Agency indicating an Order of Approval to Construct (OAC) permit will be required prior to construction and is listed as a mitigation measure within this report.

In addition, manure slurry and digester liquid effluent will need to be stored safely on site until processed or transferred offsite to avoid hydrogen sulfide and ammonia emissions. NWCAA will require full review of the engineering data to determine the complete permit conditions.

Other sources of criteria pollutant emissions associated with construction and operation of the facility would include exhaust and fugitive emissions from construction equipment, trucks for delivery to the site of construction materials and animal manure in future years and for hauling away from the site of construction debris and solid byproduct material and vehicles for commuting by workers and visitors. Only a few construction machines/vehicles and a small number of commuting vehicles are expected during the projected 4-6 month construction period. The number of truck trips used for delivery of construction materials to the proposed facility site and removal of construction debris would be about one per day, and that for hauling away dried solid material for sale would average about one to two per day. Collection and delivery of manure in future years would require an additional ten truck round-trips per day. A few commuting vehicles are expected for a full time operator of the facility and potentially a part time worker during the operational period.

Emissions from construction equipment would be intermittent and temporary. Emissions would exist only during daytime working hours. Water spraying techniques will be used to control fugitive dust when necessary.

Any future waste would be delivered in a sealed tank on a truck and pumped through an air-sealed connection to a covered collection tank. Thus, sources of odor at the facility would be limited to the solid composting area, an enclosed area adjacent to the digester, only during the time while the solid recovered from the separator is being transferred to the area for temporary

storage and while the solid material is being loaded onto trucks to be hauled away for sale.

## **2.0 Compliance with Coastal Zone Management Act:**

### **A. Coastal Zone Management Area Requirements:**

The project is located in King County, which is within a coastal zone management area. A Certification of Consistency with Washington's Coastal Zone Management Program was submitted to Ms. Loree Randle, Federal Consistency Coordinator for the Department of Ecology on 5/17/2010. Brenda McFarland, Section Manager responded that Ecology agreed that funding this project is consistent with Washington's coastal Zone Management Program and that any construction activities will be subject to all enforceable policies of the Coastal Zone management program, such as the State Environmental Policy act and State Air Quality Requirements.

### **B. State Shoreline Permit Requirements:**

The property is outside of the shoreline jurisdictional area and no shoreline permit is required.

Per the King County Critical Area Ordinance website, the subject site appears to be outside of the state shoreline area. All land use and development permit applications submitted to King County Planning are reviewed for conformance with the provisions of the King County Critical Area Ordinance. King County reserves the right to require additional information and conditions associated with permit review/approval.

## **3.0 Compliance with Endangered Species Act:**

### **A. Effect on Endangered or Candidates to Become Endangered Species:**

Mr. Larry Fisher, Area Habitat Biologist for the Washington Department of Fish and Wildlife confirmed in a letter dated

5/26/2010 that WDFW concurs with the information submitted to them that none of the state listed endangered species would be affected by the project, as habitat for these animals was not found at the project site during the WDFW review. It also does not appear the pipeline linking to the Wallin Dairy will cross any jurisdictional watercourses, so a Hydraulic Project Approval permit is not required for the project.

**4.0 Compliance with Farmland Protection Policy Act and Department Regulation 9500-3, Land Use Policy:**

Land use will change a cow food producing parcel by creating the low profile digester and a small building to house the mechanical equipment to be placed on the building lot.

All surrounding land directly impacted by this action is currently in nursery production, dairy operations and minimal corn crop production and is expected to remain so for the foreseeable future.

The Natural Resources Conservation Service (NRCS) database was consulted regarding this project's impact on important forest land and farmland in the area. Based on the King County Soil survey, the land is comprised of Alderwood Gravelly Sandy Loam. In previous discussions with Chuck Natsuhara, NRCS Soil Conservationist, he stated the site would not be considered prime forestland or rangeland or farmland. It would only be prime farmland if irrigated, which the site is not".

On physical inspection by the EA preparer, the soil has been tilled and is currently planted in corn, therefore it would be considered prime farmland.

**5.0 Compliance with Executive Order 11988, Floodplain Management, and Executive Order 11990, Protection of Wetlands:**

**A. Project Relationship to Floodplains:**

The digester project is not located within the 100 year floodplain.  
(See exhibit 11)

**B. Project Relationship to Wetlands:**

There are no wetlands listed for this location. The project site is currently in corn crop production.

**6.0 Compliance with Forestland Protection Policy Act and Department Regulation 9500-3, Land Use Policy:**

The Natural Resources Conservation Service (NRCS) database was consulted regarding this project's impact on important forest land in the area. NRCS indicated that the soil is not a hydric soil. Alderwood Gravelly Sandy Loam is not a hydric soil and therefore is not considered prime forestland.

**7.0 Compliance with National Historic Preservation Act and Archaeological and Historic Preservation Act:**

A Historic and Cultural Resources Project Review was requested of the Department of Archaeology and Historic Preservation Office (DAHP) on 5/17/2010

The Department of Archaeology and Historic Preservation Office, by letter dated 5/17/2010 concurred with USDA's determination of the Area of Potential Effect (APE) as detailed in our letter.

Letters were written on 5/13/2010 to the following Tribes, advising them of the proposed construction and requesting their assistance with information or comments on the project, the potential effect of the project and any potential effect on the undertaking of any historic property which might be affected by the proposed project:

Colville Tribe  
Muckleshoot Tribe  
Snoqualmie Tribe  
Yakama Nation

One independent tribal response was received from Muckleshoot requesting a cultural resource study. This study was ordered on 6/3 and conducted by Equinox Research Consulting (Kelley Bush). No protected cultural resources or historic properties were identified during the archaeological investigation within the project area.

A copy of this study was forwarded to DHAP and the four tribes on 6/17/2010. DHAP responded 6/21/2010 concurring with the determination of No Historic Properties affected.

**8. A Compliance with National Natural Landmarks Program:**

**A. National Historic Places:**

A review of the National Register of Historic Places indicates that this site is not on the National Historic Registry. Washington State has no National Memorials, National Battlefields, National Cemeteries, National Seashores or National Parkways.

**B. National Areas Reserves:**

According to the Washington State Department of Natural Resources Natural Heritage Information System website, as of July 21, 2009, parcel T40N R02E S21 does not appear as a surveyed land section identified as reported to contain Natural Heritage Features

Mr. John Gamon, Natural Heritage Program Manager for Washington State Department of Natural Resources was consulted on May 14, 2010. and a follow-up request was placed to obtain comments, however no response has been received to date. Since the farm is previously disturbed site that is currently planted in grass and corn, no take to natural plants is anticipated.

Washington State has only two National Historic Sites: Whitman Mission and Fort Vancouver.

**8. B Compliance with USDA policy re: impact to a National Parks System:**

A review of the National Parks Service website shows that there are no National Parks in the vicinity of the project.

Washington State has only two National Historic Parks: San Juan Island and Klondike Gold Rush-Seattle Unit.

Washington State has three National Recreational Areas: Lake Roosevelt, Lake Chelan and Ross Lake. (See exhibit 16)

**8. C Compliance with Columbia River Gorge National Scenic Area Act:**

The proposed location is not in the vicinity of and will not impact the Columbia River Gorge.

**8. D Compliance with USDA policy re: impact to a National Parks System:**

A review of the National Trails Service website shows that there are no National Trails in the vicinity of the project. (See exhibit 17)

**9.0 Compliance with Department Regulation 9500-3, Land Use Policy on Rangeland:**

The Natural Resources Conservation Service (NRCS) database was consulted regarding this project's impact on important forest land and farmland in the area. Review of the database information confirms this is not considered Rangeland.

**10.0 Sole Source Aquifers**

The project is not located in a sole source aquifer per the EPA web-site.

**11.0 Water Quality- Compliance with Clean Water Act, Safe Drinking Water Act, Federal Water Pollution Control Act:**

Impacts from construction of the digester should be minor. Construction will take place on the project site in a previously disturbed area. There is a potential for minor erosion during construction of the digester facility, however, Best Management Practices used to control erosion will be employed to prevent adverse impacts.

The roads on site will be gravel, and there will be single access onto 208<sup>th</sup> Ave. SE.

Because the project site is flat, there should be no significant erosion impacts during operation of the facility.

The lagoon and digester facility will be contained. Operational impacts to water quality should not occur from the lagoon and digester if operational guidelines are followed properly.

King County Planning will review the SEPA application for consistency with state and local regulation including but not limited to SEPA, Building Code, Fire Code, and from a preliminary standpoint, the proposal appears to be consistent with those regulations

A Storm Water Construction General Permit will be filed with the Department of Ecology. Department of Ecology is expected to issue a Construction Stormwater General Permit which explains general permit requirements and conditions the client must meet in order to satisfy the permit. Those conditions likely will include weekly visual inspections of the site and inspection by a Certified Erosion and Sediment Control Lead and sampling of stormwater discharge.

Ecology's Water Quality Program encourages AD operators to apply for Water Quality Discharge Permits. As long as all discharges are prevented, the digester operation and land application at agronomic rates of AD effluent may be done under other applicable laws and regulations, for example dairies must comply with the Dairy Nutrient Management Program of Ch 90.64 RCW.

Water Quality Discharge Permits (NPDES and/or State Waste Discharge Permits) are required for all discharges of polluting or waste materials to waters of the state. Waters of the state include surface waters and ground waters. Depending on the type of feed stocks accepted for a manure digester, the operator may be able to manage the digested effluents through land application at agronomic rates thus preventing discharges.

Washington State Department of Ecology Facilities Specialist Kara Stewart, Waste 2 Resources program reviewed the proposal and indicated their program has no comments on the NEPA application.

The application states that the digester facility "will comply with the Department of Ecology's Guidelines for Operating an Anaerobic Digester Exempt from Solid

Waste Permitting.” This document is Ecology publication no 09-07-029, located at <http://www.ecy.wa.gov/biblio/0907029.html>.

The applicant must submit to Ecology a notification of intent to operate an exempt agricultural anaerobic digester no less than 30-days prior to startup of the operation. The notification form is available at <http://www.ecy.wa.gov/biblio/ecy070356.html>. At that time the W2R program will review the operation to assess compliance with the conditions of the solid waste handling permit exemption.

Any intent to sell post-digested liquid or solids into various soil amendment markets (mentioned in Project Description) requires pre-approval by W2R in order for the digester to remain in compliance with the solid waste handling permit exemption.

**12.0 Compliance with Executive order 11990- Protection of Wetlands, USDA Regulation 9500-3 Land Use Policy, Public Law 99-198, Food Security Act of 1985, Wetland Conservation and applicable sections of the 1990 Farm Bill:**

According to USGS Maps and USFW National Inventory Maps, no wetlands exist at this site.

**13.0 Compliance with Wild and Scenic Rivers Act:**

Washington State currently has three designated Federal Wild and Scenic Rivers, those having been described as:

Skagit River: The segment from pipe line at Sedro-Wooley to and including the mouth of Bacon Creek.

Cascade River: From the mouth to the junction of the north and south Forks: the south fork to the boundary of Glacier Peak Wilderness Area:

Suiattle River: From the mouth to the junction of Elliott Creek; north fork of Sauk River from its junction with the south fork and the Sauk to the boundary of Glacier Peak Wilderness Area. (See exhibit 22)

No portion of this site is within one of these three designated rivers.

**14.0 Compliance with the Wilderness Act of 1964:**

The act views wilderness areas as “generally larger than 5000 acres that have retained their primeval character”. Washington State has 30 wilderness areas managed by four federal agencies. Local comprehensive plans do not indicate any wilderness areas in the vicinity of the project.

**15.0 Compliance with Intergovernmental Review Process:**

King County does not participate in the Washington Intergovernmental Review Process.

## SECTION II

### Other Environmental Factors and Concerns

#### 1.0 Hazardous Substances- Waste

There are no hazardous wastes or radioactive wastes identified on or near this project area per the EPA Hazardous Sites List. (See exhibit 23)

There is no asbestos present at and there are no underground storage tanks on the site.

Main sources of solid wastes or solid products generated at the facility include construction debris generated during the construction period and solid material separated from digester effluent during operations.

The quantity of construction debris is estimated as equal to or less than a truck-load per day. Construction debris will be hauled away to a licensed landfill site for disposal.

Solids in the digester effluent would not be disposed of as solid waste; rather they will be transported to a composting area in the enclosed building for drying and eventual sale as bedding or soil amendment.

Any manure digester will be reviewed for consistency with state and local regulation including but not limited to SEPA, Building Code, Fire Code, and from a preliminary standpoint, the proposal appears to be consistent with those regulations.

#### 2.0 Radioactive Waste

In 1988, Ecology created a new Nuclear Waste Program to deal specifically with Hanford-related activities and cleanup, and other sources of mixed radioactive and chemically hazardous wastes. The focus of the NWP is Hanford, but the program also has regulatory responsibility for mixed wastes generated at the Puget Sound Naval Shipyard and commercial facilities in the Tri-Cities area, and the program oversees disposal and policy issues concerning commercial low-level radioactive wastes. This project will not generate radioactive waste.

### **3.0 Underground Storage**

There are no known underground storage tanks at this location. Should a tank be encountered, appropriate removal and groundwater monitoring would be conducted.

### **4.0 Radon Gas**

Radon is a chemically inert radioactive element found in soils and rocks that make up the earth's crust. Because it is a gas, it can easily move thorough soil and water into the atmosphere. Most of the higher levels of radon have been found in Northeastern Washington due to the naturally occurring radium in the soil and rock. Western Washington does not appear to have significant radon levels. The only way to know is to test. No Federal standards for radon gas exist. State requirements are regulated by Indoor Air Quality and Uniform Building Codes. Should there be a concern regarding radon gas in the future, the applicants will ventilate the building and seal entry points to eliminate entry into the building.

### **5.0 Asbestos**

No buildings exist on the site; therefore the risk of asbestos is highly unlikely and not anticipated after construction.

### **6.0 Geological Hazards and Constraints:**

In addition to any permit requirements, Andgar, the design/build contractor on the project, has implemented design characteristics intended to mitigate the results from any seismic activity.

There would be no vibrations caused by the use of this structure except possibly during the construction phase. There will be some minor vibration caused during preparation of soils and foundation construction; however this inconvenience would be limited to reasonable daylight hours.

### **7.0 Lead Hazards:**

Lead can be found in drinking water and in household paint. No drinking water is planned at this site and no buildings exist on the site, therefore the risk of lead hazards is not anticipated.

## **8.0 Clandestine Drug Labs:**

No buildings exist on the site; therefore the risk of clandestine drug activity is highly unlikely and not anticipated after construction.

## **9.0 Mold:**

No buildings exist on the proposed site; therefore the risk of mold hazards is not anticipated.

## **10.0 Compliance with Title III of the Energy and Conservation and Production Act:**

There will be no negative impacts to energy resource supplies. The project is an energy generating project that will utilize a portion of the energy produced on the farm, provide waste heat to a nearby nursery and provide excess production to the grid for sale. The project will not consume energy, but conserve and add to the supplies already available. The plans call for a sustained yield of energy at 750kW through the production of methane gas to be burned in a power generation unit.

## **11.0 Compliance with Subpart B on Noise Abatement and Control:**

Next to the digester will sit an approximately 45 x 45 pre-engineered steel mechanical building that houses the control equipment, electrical transfer equipment, and up to two sixteen-cylinder continuous duty gensets that run on methane with a combined output of 1.5 megawatts. The initial installation will include only a single, 750 kW generator (commonly referred to as a “genset”). Excess methane gas from the digester is flared so that no combustible gas will be stored on site.

There will also be a roughly 45 x 25 covered area beside the mechanical building for storing digested fiber and a 20 x 75 concrete slab for electrical auxiliary equipment.

The facility will receive manure from up to 2,000 milking cows on 4-8 partner farms via truck. Processed manure will be returned via return trips on the truck. Approximately 10 round trips per day each consisting of an average of eight miles will be necessary to supply the digester. The facility

will also receive food waste via truck at the rate of approximately one load per day. The facility will comply with Dept of Ecology guidelines for processing food waste in ag-exempt anaerobic digesters and will obtain an air emissions permit from the Northwest Clean Air Agency. The facility will also generate approximately one truck round trip per day for the hauling of digested fiber to farms. This type of truck traffic is within norms for agricultural operations in the area.

## **12.0 Reaction to Project**

### **A. Public Comments and Responses-**

No stated objections to this project have been received to date. All persons contacted are supportive of a project that will reduce odors, improve air quality and produce energy.

A Preliminary Notice of Possible Impact to Important Land Resource was published the week of May 19 and May 26, 2010 to allow for additional public comment and responses. No responses have been received by the RD office.

### **B. Letters of Support:**

Letters of support have been submitted by King County Water and Land Resources Division, King County Conservation District, King County Agriculture Commission, Middle Green River Coalition, Mid-Puget Fisheries Enhancement Group and Muckleshoot Indian Tribe.

## **13.0 Cumulative Impacts of Project:**

This project would convert farmland used to grow livestock feed to an anaerobic digester facility. Project is located across the street from existing farms and except for an increase in traffic no other known impacts, direct or indirect, are expected.

## **14.0 Alternatives:**

### **A. Alternate Locations:**

Alternative locations were not included because of the required proximity of the proposed project to the farms as a source of input material and as a source for the nursery designated to receive the waste heat. In particular, it is close to the source of a large portion of the raw materials to be provided. Any other site would require extensive construction for roads, power and distribution lines as well as removal of a site from food crop production. The proposed project requires the least impact to land and other resources since it is immediately adjacent to the primary farm and close to the neighboring farms.

### **B. Alternate Designs;**

The plug-flow digester design is the most time tested and efficient of the three digester systems currently in use. Use of an alternate design would result in less efficiency and less energy output, which would obviate the need for the project.

### **C. Alternate Projects with Similar Benefits:**

Alternate projects with similar benefits were considered in the design phase of the project and found to be acceptable in general environmental terms; however, the chosen system has a proven track record for production efficiency and ease of operation and maintenance.

### **D. No Action Alternative:**

The no-action alternative is to not fund this project. By taking no action the farmers will continue to apply untreated manure to their fields. No energy would be generated and no odor would be mitigated.

This project meets the RD Business Program loan criteria and is an eligible entity. Environmental and funding criteria have been met...

## 15.0 Mitigation Measures:

Mitigation Measures recommended are reasonable and follow regulatory agencies direction to minimize adverse comments and concerns. Mitigation measures will appear in the USDA Letter of Conditions, or other financing instruments which offers RD's commitment for this project. A copy of the mitigation measures will be sent to the engineer, architect, or other representative of the applicant, to help ensure that these measures are incorporated into the project's development plans as appropriate. Measures include:

1. Pollution control measures and safety measures in the design and operating procedures to mitigate impacts resulting from potential hydrogen sulfide and ammonia gas releases.
2. A contract specification to control dust and noise during construction. Equipment shall not be operated without proper mufflers or other noise suppressers as appropriate for the type of equipment involved.
3. Daily operation of equipment and construction shall comply with the Maximum Environmental Noise Levels chapter of 173-60 WAC and King County Codes. Public roadways will be swept daily so as to leave no excavation material on driving surfaces.
4. Construction hours to be monitored. Normal construction hours to be Monday through Friday, not to exceed 7:00am to 5:00pm. (Or daylight hours depending on county restrictions).
5. Berming will be utilized to guard against excess surface runoff and erosion entering off site area. Grass swales will be placed to control surface runoff and erosion. Cuts will be kept to a minimum and fills will not be required. Storm water run-off from roofs and storm surfaces will be directed to drainage swales. Site grading will provide for surface run-off as required by King County building requirements.
6. The digester operational plan will include a response plan in case of a catastrophic event.
7. An engineered compaction soils report will be required for all structures placed on fill material.

8. Temporary erosion/ sedimentation control measures will be established in accordance with the King County Department of Public Works.
9. Northwest Clean Air Agency requirements will be complied with, including filing an application for an Order of Approval to Construct (OAC) permit prior to construction.
10. The applicant will comply with any provisions of the King County Drainage Ordinances.
11. The applicant will comply with all relevant provisions of the King County Critical Areas Ordinance.
12. Any Fire Marshal and King County Health Department requirements will be met.
13. WAD 173-201A and 173-200 will be complied with as required to address surface water quality issues and ground water issues and permit conditions will be met. Weekly visual site inspections to ensure best management practices shall be utilized to prevent interference with and/or degradation of water quality and to control soil erosion. Whenever possible, the site's storm water will be directed into the digester tank. A Stormwater Pollution Prevention Plan will be on site prior to start of construction.
14. An Unanticipated Discovery Plan (UDP) must be in place before a Notice to Proceed is issued. In the event that any ground-disturbing activities in any future development uncover protected cultural materials (e.g., bones, shell, and stone tools), all work in the immediate vicinity should stop, the area should be secured, and any equipment moved to a safe distance away from the location. Then the contractor or landowner should contact the Department of Archaeology and Historic Preservation (Robert Whitlam 360-586-3080), a professional and qualified archaeologist, and the Muckleshoot Indian Tribe (Laura Murphy, Tribal Archaeologist 253-867-3272) immediately in order to help assess the situation and determine how to preserve the resources. Compliance with all applicable laws pertaining to archaeological resources is required.
15. If earth disturbing activities during any area of the project uncover human remains, all work shall cease immediately in

accordance with the Native American Graves Protection and Repatriation Act of 1990 (NAGPRA) and state statues RCW 27.44. The area around the discovery shall be secured and the King County Sheriff's Department (260-296-4155) and the King County Medical Examiner's office (206-731-3232) shall be contacted to determine if the remains are forensic in nature. If the remains are not forensic in nature, the Department of Archaeology and Historic Preservation (Guy Tasa, Physical Anthropologist 360-586-3534) will take the lead on managing the remains.

16. Updated nutrient management plans will be required for the receiving farms.
17. Submit to Ecology a notification of intent to operate an exempt agricultural anaerobic digester and comply with all conditions of Ecology publication # 09-07-029, *Guidelines for Operations an Anaerobic Digester Exempted from Solid Waste Handling Permit*. Provide all necessary design, operational and record keeping documents to demonstrate compliance.

#### **16.0 Environmental Determinations:**

Based on an examination and review of the foregoing information and such supplemental information attached hereto, the proposal is consistent with USDA Rural Development environmental policies.

I recommend that the approving official determine that this project will not have a significant effect on the quality of the human environment.

---

Preparer-Sharon A. Exley/ Business Programs Specialist

Date 6/24/2010

**Exley, Sharon - Mount Vernon, WA**

---

**From:** Jimenez, Cathy [Cathy.Jimenez@kingcounty.gov]  
**Sent:** Friday, June 11, 2010 11:04 AM  
**To:** Exley, Sharon - Mount Vernon, WA  
**Cc:** Reinlasoder, Rick; Creahan, Kathy; Isaacson, Mark; True, Christie; Burns, Bob  
**Subject:** Rainier Biogas Anaerobic Digester Project comments  
**Attachments:** usdadigester\_rfc\_20100611105419.pdf; usdadigestercommentltr\_20100611105204.pdf

Dear Ms. Exley,

Thank you for your letter dated May 14, 2010 requesting comments from King County DNRP on the Rainier Biogas Anaerobic Digester Project. Attached is a copy of the letter reflecting our comments as well as your original letter of request. A hard copy of this letter has also been mailed to you.

Thank you for the opportunity to provide comment on this project. If you have any questions regarding our comments, please don't hesitate to contact Rick Reinlasoder at 206-263-6566 or Jon Smyth at 206-684-1774.

Cathy Jimenez  
Administrative Specialist III  
Rural & Regional Services Section • Water & Land Resources Division  
King County Department of Natural Resources & Parks  
206.263.4792 • [cathy.jimenez@kingcounty.gov](mailto:cathy.jimenez@kingcounty.gov)



**King County**

**Water and Land Resources Division**

Department of Natural Resources and Parks  
King Street Center  
201 South Jackson Street, Suite 600  
Seattle, WA 98104-3855  
206-296-6519 Fax 206-296-0192  
TTY Relay: 711

JUN 14 2010

June 10, 2010

Ms. Sharon Exley  
United States Department of Agriculture  
Rural Development  
2021 E. College Way, Suite 216  
Mount Vernon, WA 98273-2373

Subject: Rainier Biogas Anaerobic Digester Project

Dear Ms. Exley:

The King County Department of Natural Resources and Parks (DNRP) appreciates the opportunity to review and comment on the proposed Rainier Biogas Anaerobic Digester Project. This review consolidates input from your letters sent to Christie True, Rick Reinlasoder and myself on May 14, 2010.

The county has been supportive of this project from its early developmental stage. Dairies on the Enumclaw Plateau have been under significant financial pressure from rising costs of animal feed, bedding material and environmentally-sound manure management. At the same time, declining milk prices are reducing revenue. This project seeks to reduce the dairies' costs for manure management and bedding while providing environmental benefits through production of renewable energy and improvements in water quality in the Green and White River watersheds. These objectives are consistent with the county's environmental stewardship, renewable energy and agricultural policies.

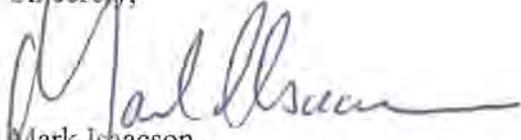
King County DNRP has reviewed the project proposal and provides the following comments:

- 1) The proposal is consistent with the Agricultural zoning of the site and supports the agricultural use of the property.
- 2) The selected site is appropriate, as it ties in with a current dairy operation and is in close proximity to several other dairies. The community surrounding the project site has the largest concentration of dairies in King County.
- 3) The proposal makes use of existing infrastructure, such as lagoons and storage tanks, and therefore reduces the new footprint of the project.
- 4) The proposal is in the Puget Sound Energy (PSE) service area and the developer has worked with PSE on two similar projects. This makes it more likely the project will succeed in connecting to the electrical grid.

- 5) The property is in the King County Farmland Preservation Program, which supports projects of this type.

Thank you for the opportunity to comment on this proposed project which will provide benefits to family dairies, the surrounding community and environmental quality. Please feel free to contact John Smyth at 206-684-1774 or Rick Reinlasoder at 206-263-6566 if you have any questions.

Sincerely,



Mark Isaacson  
Division Director

cc: Bob Burns, Interim Director, Department of Natural Resources & Parks (DNRP)  
Christie True, Division Director, Wastewater Treatment Division, DNRP  
Kathy Creahan, Agriculture, Forestry & Incentives Unit Supervisor, Water &  
Land Resources Division (WLRD), DNRP  
Rick Reinlasoder, Livestock Program Specialist, WLRD, DNRP



STATE OF WASHINGTON  
DEPARTMENT OF ECOLOGY

PO Box 47600 • Olympia, WA 98504-7600 • 360-407-6000  
711 for Washington Relay Service • Persons with a speech disability can call 877-833-6341

June 3, 2010

Ms. Janice Roderick  
USDA Rural Development  
1835 Black Lake Boulevard SW, Suite B  
Olympia, Washington 98512

**RE: Federal Consistency – Rainier Biogas LLC, Enumclaw**

Dear Ms. Roderick:

The Department of Ecology, Shorelands and Environmental Assistance Program received your requests regarding the use of federal funds for the construction of an anaerobic manure digester, concrete receiving pit and mechanical building, to be located off 208<sup>th</sup> Avenue SE in Enumclaw, King County, Washington.

Ecology agrees that funding this project is consistent with Washington's Coastal Zone Management Program. Please note that this Consistency Determination is for the release of funds only. Any construction activities will be subject to ALL enforceable polices of the Coastal Zone Management Program, such as the State Environmental Policy Act (SEPA).

If you have any questions regarding this letter please contact Jessica Moore at (360) 407-7421.

Sincerely,

A handwritten signature in blue ink, appearing to read "Brenden McFarland".

Brenden McFarland, Section Manager  
Environmental Review and Transportation Section  
Shorelands and Environmental Assistance Program

cc: Jessica Moore, Ecology



United States Department of Agriculture  
Rural Development  
Washington State Office

May 17, 2010

Department of Ecology  
Federal Consistency Coordinator  
ATTN: Loree' Randall  
PO Box 47600  
Olympia, WA 98504-7600

MAY 18 2010

Subject: Rainier Biogas LLC, Enumclaw, Washington

Dear Ms. Randall:

USDA Rural Development (RD) requests Ecology's concurrence in RD's determination of coastal zone program consistency certification for the above client. USDA is considering an application to fund an anaerobic manure digester, concrete receiving pit and a mechanical building located on land owned by Ritter Dairy, off 208<sup>th</sup> Avenue SE in Enumclaw, Washington. The land is zoned agricultural or rural and is used as farmland or a few isolated homes.

A SEPA determination is pending under King County. Further information is enclosed for your review.

Please call me if you have any questions. I can be reached at (360) 704-7739 or by e-mail at [Janice.roderick@wa.usda.gov](mailto:Janice.roderick@wa.usda.gov).

Sincerely,

A handwritten signature in cursive script that reads "Janice Roderick".

Janice Roderick  
RD Environmental Coordinator

Attachment

Cc w/o: Sharon Exley, USDA-RD Loan Specialist

1835 Black Lake Blvd SW • Suite B • Olympia, WA 98512-5715  
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**CERTIFICATION OF CONSISTENCY WITH WASHINGTON'S  
COASTAL ZONE MANAGEMENT PROGRAM FOR  
ACTIVITIES FUNDED BY RURAL DEVELOPMENT (USDA/RD)**

Federal Application Number: \_\_\_\_\_

Applicant: Rainier Biogas LLC

Project Description: Anaerobic Manure Digester

(attach site plans, location (county/city), and proximity to waterbody (name)) or JARPA Application

This action under CZMA§307(c)(3) is for a project, which will take place within Washington's coastal zone, or which will affect a land use, water use, or natural resource of the coastal zone. (The coastal zone includes Clallam, Grays Harbor, Island, Jefferson, King, Kitsap, Mason, Pacific, Pierce, San Juan, Skagit, Snohomish, Thurston, Wahkiakum and Whatcom counties.)

The project complies with the following enforceable policies of the Coastal Zone Management Program:

1. **Shoreline Management Act:**  
 Is outside of SMA jurisdiction   
 Applied for shoreline permit ( )# \_\_\_\_\_ being reviewed by \_\_\_\_\_  
 Has a valid shoreline permit ( )# \_\_\_\_\_ issued by \_\_\_\_\_ on \_\_\_\_\_  
 Has received an SMA Exemption ( )# \_\_\_\_\_ issued by \_\_\_\_\_ on \_\_\_\_\_
  
2. **State Water Quality Requirements:**  
 Does not require water quality permits   
 Applied for water quality certification ( )  
 Has received water quality certification ( )# \_\_\_\_\_ issued on \_\_\_\_\_  
 Applied for stormwater permit ( )# \_\_\_\_\_ issued on \_\_\_\_\_  
 Has received stormwater permit ( )# \_\_\_\_\_ issued on \_\_\_\_\_
  
3. **State Air Quality Requirements:**  
 Does not require air quality permits ( )  
 Applied for Air Quality permit ( )# \_\_\_\_\_ being reviewed by \_\_\_\_\_ Puget Sound Clean Air Agency  
 Has an Air Quality permit ( )# \_\_\_\_\_ issued by \_\_\_\_\_ on \_\_\_\_\_
  
4. **State Environmental Policy Act:**  
 Project is exempt from SEPA SEPA Lead Agency is: King County, application pending  
 SEPA checklist submitted ( )  
 SEPA decision issued/adopted ( ) date \_\_\_\_\_  
 NEPA decision adopted by ( )DNS ( )MDNS ( )EIS ( )Other \_\_\_\_\_ date \_\_\_\_\_  
 Lead agency to satisfy SEPA ( )SEPA # \_\_\_\_\_ date \_\_\_\_\_

Public Notice for this proposed project was provided through:

- ( ) notice mailed to interested parties using USDA/RD mailing list on 5/14/10 (date)
- ( ) publication in Everett Courier Herald (newspaper) on pending (dates)
- ( ) other (include dates) \_\_\_\_\_

Therefore, I certify that this project complies with the enforceable policies of Washington's approved coastal zone management program and will be conducted in a manner consistent with such program.

(Signature) \_\_\_\_\_ Date 5/14/10

USDA, Rural Development concludes this action is consistent to the maximum extent practicable with Washington's Coastal Zone Management Program.

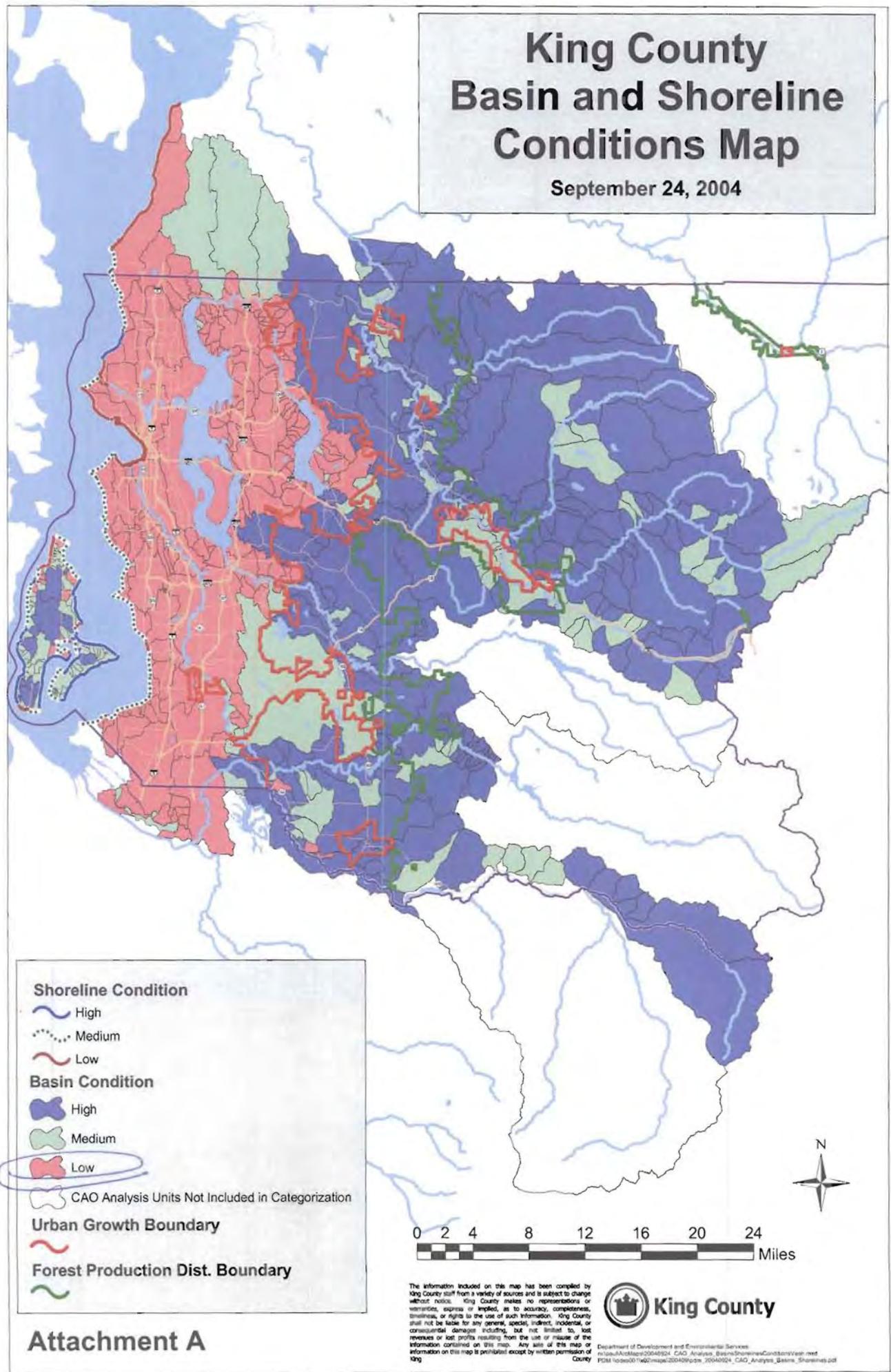
Funds will not be released until all State Agency requirements have been met.

(Signature) \_\_\_\_\_ Date \_\_\_\_\_

If you require this publication in an alternate format, please contact the Shorelands and Environmental Assistance Program at 360-407-6096, or TTY (for the speech or hearing impaired) 711 or 800-833-6388.

# King County Basin and Shoreline Conditions Map

September 24, 2004



Attachment A





MAY 27 2010

State of Washington  
**DEPARTMENT OF FISH AND WILDLIFE**

Region 4 Office: 16018 Mill Creek Boulevard - Mill Creek, Washington 98012 - (425) 775-1311

May 26, 2010

United States Department of Agriculture  
Rural Development  
ATTENTION: Sharon Exley, Business Programs Specialist  
2021 E. College Way, Suite 216  
Mount Vernon, Washington 98273-2373

Dear Ms. Exley:

**SUBJECT: Rainier Biogas Proposed Anaerobic Digester, Degroot Dairy, 43218 208<sup>th</sup> Ave SE, Enumclaw, King County, WRIA 09.0114**

The Washington Department of Fish and Wildlife (WDFW) has reviewed the above-referenced proposed project and offers the following comments.

WDFW concurs with the information noted in your May 14, 2010 letter that none of the state listed endangered species would be affected by the project, as habitat for these animals was not found at the project site during the WDFW review.

It also does not appear the pipeline linking to the Wallin Dairy will cross any jurisdictional watercourses, so a Hydraulic Project Approval permit is not required for the project.

WDFW appreciates the opportunity to work collaboratively with your agency to preserve, protect, perpetuate, and manage the fish and wildlife resources of the state of Washington. If there are any questions concerning this, I may be contacted at 425-313-5683 or [fisheldf@dfw.wa.gov](mailto:fisheldf@dfw.wa.gov).

Sincerely,

A handwritten signature in cursive script that reads "Larry Fisher".

Larry Fisher  
Area Habitat Biologist

LF:lf:USDA.RainierBiogas.doc

cc: WDFW, SEPA Coordinator, Reinbold

## Exley, Sharon - Mount Vernon, WA

---

**From:** Anderson, Christopher D (DFW) [Christopher.Anderson@dfw.wa.gov]  
**Sent:** Thursday, June 17, 2010 6:29 PM  
**To:** Exley, Sharon - Mount Vernon, WA  
**Cc:** Brock, David W (DFW); Link, Russell E (DFW)  
**Subject:** RE: Eumclaw project

Sharon,

WDFW has no species or habitats documented on or within the immediate vicinity of this project site. WDFW has no issue with the proposed dairy digester in regards to state Priority Habitats and Species recommended by WDFW for management consideration (including federal/state endangered, threatened, and sensitive species). More information regarding Priority Species and Habitats can be found at:

<http://wdfw.wa.gov/hab/phspage.htm>

Thanks,

---

Chris Anderson  
Wildlife Biologist  
District 12, King County  
WA Dept. of Fish and Wildlife - Region 4  
16018 Mill Creek Blvd.  
Mill Creek, WA 98012  
425.775.1311, ext 111  
[Christopher.Anderson@dfw.wa.gov](mailto:Christopher.Anderson@dfw.wa.gov)  
<http://wdfw.wa.gov>

---

Want to attract more wildlife to your property?  
Check out the WDFW Backyard Wildlife Sanctuary Program:  
<http://wdfw.wa.gov/wlm/backyard/>

---

**From:** Exley, Sharon - Mount Vernon, WA [mailto:Sharon.Exley@wa.usda.gov]  
**Sent:** Wednesday, May 19, 2010 8:15 AM  
**To:** Anderson, Christopher D (DFW)  
**Cc:** Brock, David W (DFW); Link, Russell E (DFW)  
**Subject:** RE: Eumclaw project

Hello Chris,

Thanks for your email. I sent a letter off last week addressed to Larry Fisher, so please forgive me if I am now complicating things. I'm attaching a copy of the letter I sent off to Larry, for your review.

We have approved two other digesters for them; one in Skagit and one in Whatcom County, and they've both been very small projects. Excavation is limited to the concrete receiving pit and the area where the generator building goes. They flare any excess methane. Not clarified in their description, they will also be doing directional drilling to place a pipe under the county road listed as 208<sup>th</sup> Ave SE.

Please let me know if you have any questions.

Thank you!  
Sharon

Sharon Exley, Business Programs Specialist  
Rural Development  
U.S. Department of Agriculture  
2021 E College Way, Suite 216, Mt. Vernon, WA 98273  
Voice: 360-428-4322 x 159, TDD: 360-704-7772 , Fax: 360-424-6172

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---

**From:** Anderson, Christopher D (DFW) [mailto:Christopher.Anderson@dfw.wa.gov]  
**Sent:** Tuesday, May 18, 2010 10:33 AM  
**To:** Exley, Sharon - Mount Vernon, WA  
**Cc:** Brock, David W (DFW); Link, Russell E (DFW)  
**Subject:** RE: Eumclaw project

Sharon,

David Brock discussed the basics of your project with me. I may be able to assist, if the project is relatively straightforward and limited in footprint, in regards to terrestrial wildlife and associated habitat covered under NEPA and also any local critical areas ordinance (either Enumclaw or King Co. – both ask for consideration of PHS).

Could you send me a brief description of the project; a basic project envelope site plan, if available; and a project address/parcel location information so that I may examine the project site and surrounding project area to screen for any baseline PHS occurrences that may be already documented? Note, WDFW PHS is obviously just a first-hack screening tool for project due diligence; it does not substitute for appropriate and planned field reconnaissance to document baseline project environment and screen for any environmental consideration needs; such as area wildlife outlined for management consideration under federal, state or local laws. WDFW asks that any reconnaissance that finds Fed/State Endangered, Threatened, or Sensitive species; as well as any possible Priority Habitats and Species; please be submitted for our documentation review and any possible appropriate consultation needs based on state or local laws.

If the project is quite complex, it is recommended that PHS maps be obtained and consideration needs examined by professional wildlife biologist (either consulting or on staff with USDA) and a proposal of any appropriate management considerations be submitted to WDFW. Based on project findings, WDFW may be available, if appropriate, for area critical areas and/or NEPA/SEPA consultation.

From what David relayed, this sounds like a pretty straightforward project and the above more intensive project review is likely unnecessary – if so, I am happy to assist where appropriate.

Thanks,

---

Chris Anderson  
Wildlife Biologist  
District 12, King County  
WA Dept. of Fish and Wildlife - Region 4  
16018 Mill Creek Blvd.

Mill Creek, WA 98012  
425.775.1311, ext 111  
Christopher.Anderson@dfw.wa.gov  
<http://wdfw.wa.gov>

---

Want to attract more wildlife to your property?  
Check out the WDFW Backyard Wildlife Sanctuary Program:  
<http://wdfw.wa.gov/wlm/backyard/>

---

**From:** Brock, David W (DFW)  
**Sent:** Friday, May 14, 2010 1:58 PM  
**To:** Anderson, Christopher D (DFW)  
**Subject:** FW: Eumclaw project

As per our discussion.

Thanks,

David W. Brock  
Regional Habitat Program Manager  
16018 Mill Creek Blvd  
Mill Creek, WA 98212  
425-775-1311 #114

---

**From:** Exley, Sharon - Mount Vernon, WA [mailto:Sharon.Exley@wa.usda.gov]  
**Sent:** Friday, May 14, 2010 1:51 PM  
**To:** Brock, David W (DFW)  
**Subject:** Eumclaw project

Hi David,  
How are you on this sunny afternoon?

I'm working on the NEPA for an anaerobic digester in Enumclaw. Would you be the proper person to send my inquiry letter to?

It's farmland planted in grass right now, and I don't believe there are any concerns as to wildlife. The digester is not expected to negatively impact the area and no take is anticipated during construction. I've been poking around on the DFW website but it appears in order to find out about critical habitats that may have been identified that I'm not aware of, I'd have to purchase maps that might take as much as 8 weeks to get here. Is there another process you could suggest?

Thanks!  
Sharon

Sharon Exley, Business Programs Specialist  
Rural Development  
U.S. Department of Agriculture  
2021 E College Way, Suite 216, Mt. Vernon, WA 98273  
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**WILDLIFE HABITAT**  
for development proposals in  
**UNINCORPORATED KING COUNTY**

The regulations described in this fact sheet are effective as of January 1, 2005.

**BACKGROUND**

The Growth Management Act requires King County and other counties and cities to designate and protect Critical Areas, including Fish and Wildlife Habitat Conservation Areas. The King County Comprehensive Plan addresses this requirement through policies that require the County to protect certain species. See, King County Comprehensive Plan, Chapter 4, Policies E-165 through E-179.

Aquatic species are generally protected through application of King County's existing and proposed regulations for streams, wetlands, and marine shorelines. The Critical Areas Ordinance, approved by the Metropolitan King County Council on October 25, 2004, provides similar protections for terrestrial species such as birds and mammals.

**WILDLIFE HABITAT CONSERVATION AREAS**

The Critical Areas Ordinance requires the protection of breeding sites for all species that King County is required to protect under the Comprehensive Plan. These areas are called Wildlife Habitat Conservation Areas. For ten terrestrial species that are most commonly encountered during review of proposed developments in unincorporated King County, the ordinance package includes specific standards to protect their nesting sites or breeding areas. These species include: Bald Eagle, Great Blue Herron, Osprey, Peregrine Falcon, Spotted Owl, Marbled Murrelet, Townsend's Big Eared Bat, Vaux's Swift, Red-tailed hawk, and the Goshawk.

For other species that the Comprehensive Plan requires King County to protect, if the breeding site of the species is discovered during project review, the department will establish appropriate protection standards based on management guidelines published by the Washington Department of Fish and Wildlife.

King County Comprehensive Plan also encourages the County to protect other species. For those species, the Critical Areas Ordinance requires the breeding site to be protected while it is occupied.

Some animal species have adapted to more intense development. For example, a Great Blue Heron colony may be located close to an existing subdivision and the colony may be adapted to the activity of that subdivision. In these circumstances, the applicant for a new development may be able to show that the species have adapted to a developed environment and that a smaller protection area is acceptable.

#### **WILDLIFE HABITAT NETWORKS**

Wildlife habitat networks are made of natural vegetation linking wildlife habitat with critical areas, their buffers, priority habitats, trails, parks or open space. These networks provide for wildlife movement and alleviate the effects of habitat fragmentation.

King County Comprehensive Plan policies require the designation and mapping of habitat networks for threatened, endangered, and priority species. A map of potential linkages is included in the Comprehensive Plan. See, Wildlife Habitat Network and Public Ownership 2000 Map. Proposed subdivisions, short plats, and development on lots created prior to 1995 that are along the designated wildlife habitat corridor must place the area of the corridor that crosses the property in a separate tract or a conservation easement. The corridor should be 300 feet wide, although it may be reduced to 150 feet where necessary.

Within designated wildlife habitat networks, recreation, forestry, and other uses that are compatible with preserving and enhancing wildlife habitat value of the corridor are allowed. The activities must be developed through an approved management plan, however.

#### **ALLOWED USES WITHIN WILDLIFE HABITAT CONSERVATION AREAS**

Many of the activities allowed in other critical areas are also allowed within Wildlife Habitat Conservation Areas. In most cases, there are seasonal restrictions on some activities that may disturb active nests. Allowed uses include:

- Maintenance activities;
- Utilities, if another location is not available;
- Surface water discharge from an appropriate facility;
- Public and private trails;
- Crossings under limited circumstances;
- Enhancement and restoration activities;
- Cutting limited amounts of timber for firewood and clearing brush to enhance tree growth; and
- Reconstruction, remodeling, or replacement of a legal structure with conditions.

**Agriculture and Rural Residential Property.** The Critical Areas Ordinance provides alternative ways for rural property owners to protect wildlife habitat conservation areas. For new or expanded agricultural activities, a farm plan is required to expand into what would otherwise be a wildlife habitat conservation area. See the [Agriculture Fact Sheet](#) for more information. Rural residential property owners who prepare a Rural Stewardship Plan may be able to modify the wildlife habitat conservation area requirements. (See the Rural Stewardship Plan Fact Sheet for more information).

To learn more, access the following Web site:

<http://www.metrokc.gov/ddes/cao>



WASHINGTON DEPARTMENT OF FISH AND WILDLIFE

# Species of Concern

## State Endangered Species

## State Endangered Species

Current through June 1, 2009

"Any wildlife species native to the state of Washington that is seriously threatened with extinction throughout all or a significant portion of its range within the state."  
 WAC 232-12-297, Section 2.4

### Search Species Lists

#### SORT RESULTS BY:

- Common Name
- Scientific Name
- Animal Type

Search Listings

[Advanced Search](#)

### Species of Concern Lists

- Endangered Species
- Threatened Species
- Sensitive Species
- State Candidate Species

- Complete SOC List
- Main SOC Page

#### Status Codes:

- FE: Federal Endangered
- FT: Federal Threatened
- FC: Federal Candidate
- FCo: Federal Species of Concern
- SE: State Endangered
- ST: State Threatened
- SC: State Candidate
- SS: State Sensitive

#### Related Links

- State Monitor Species

COMMON NAME	SCIENTIFIC NAME	ANIMAL TYPE	FEDERAL STATUS
Northern leopard frog	<i>Rana pipiens</i>	Amphibian	FCo
Oregon spotted frog	<i>Rana pretiosa</i>	Amphibian	FC
American white pelican	<i>Pelecanus erythrorhynchos</i>	Bird	none
<input checked="" type="checkbox"/> Brown pelican	<i>Pelecanus occidentalis</i>	Bird	FE
Sandhill crane	<i>Grus canadensis</i>	Bird	none
Snowy plover	<i>Charadrius alexandrinus</i>	Bird	FT
Spotted owl	<i>Strix occidentalis</i>	Bird	FT
Streaked horned lark	<i>Eremophila alpestris strigata</i>	Bird	FC
Upland sandpiper	<i>Bartramia longicauda</i>	Bird	none
Mardon skipper	<i>Polites mardon</i>	Butterfly/Moth	FC
Oregon silverspot butterfly	<i>Speyeria zerene hippolyta</i>	Butterfly/Moth	FT
Taylor's checkerspot	<i>Euphydryas editha taylori</i>	Butterfly/Moth	FC
<input checked="" type="checkbox"/> Black right whale	<i>Balaena glacialis</i>	Mammal	FE
<input checked="" type="checkbox"/> Blue whale	<i>Baleoptera musculus</i>	Mammal	FE
<input checked="" type="checkbox"/> Columbian white-tailed deer	<i>Odocoileus virginianus leucurus</i>	Mammal	FE
<input checked="" type="checkbox"/> Fin whale	<i>Baleoptera physalus</i>	Mammal	FE
Fisher	<i>Martes pennanti</i>	Mammal	FC
<input checked="" type="checkbox"/> Gray wolf	<i>Canis lupus</i>	Mammal	FE
Grizzly bear	<i>Ursus arctos</i>	Mammal	FT
<input checked="" type="checkbox"/> Humpback whale	<i>Megaptera novaeangliae</i>	Mammal	FE
<input checked="" type="checkbox"/> Killer whale	<i>Orcinus orca</i>	Mammal	FE
<input checked="" type="checkbox"/> Pygmy rabbit	<i>Brachylagus idahoensis</i>	Mammal	FE
Sea otter	<i>Enhydra lutris</i>	Mammal	FCo
<input checked="" type="checkbox"/> Sei whale	<i>Baleoptera borealis</i>	Mammal	FE
<input checked="" type="checkbox"/> Sperm whale	<i>Physeter macrocephalus</i>	Mammal	FE
<input checked="" type="checkbox"/> Woodland caribou	<i>Rangifer tarandus</i>	Mammal	FE
<input checked="" type="checkbox"/> Leatherback sea turtle	<i>Dermochelys coriacea</i>	Reptile	FE
Western pond turtle	<i>Actinemys marmorata</i>	Reptile	FCo

Find a bug or error in the system? [Let us know about it!](#)  
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 E-mail <webmaster@dfw.wa.gov>



# Species Reports

Environmental Conservation Online System

## How many listed species currently occur in and are listed in Washington?

### Notes:

- This report shows the species listed in this state that also occur in this state.
- This list does not include experimental populations and similarity of appearance listings.
- This list includes non-nesting sea turtles and whales in State/Territory coastal waters.
- This list includes species or populations under the sole jurisdiction of the National Marine Fisheries Service.
- Click on the highlighted scientific names below to view a Species Profile for each listing.

## Species listed in this state and that occur in this state -- 38 listings

### Animals -- 29

#### Status Species/Listing Name

- E Albatross, short-tailed (*[Phoebastria \(=Diomedea\) albatrus](#)*)
- T Bear, grizzly lower 48 States, except where listed as an experimental population or delisted (*[Ursus arctos horribilis](#)*)
- T Butterfly, Oregon silverspot (*[Speyeria zerene hippolyta](#)*)
- E Caribou, woodland Selkirk Mountain population (*[Rangifer tarandus caribou](#)*)
- E Deer, Columbian white-tailed Columbia River DPS (*[Odocoileus virginianus leucurus](#)*)
- T Lynx, Canada (Contiguous U.S. DPS) (*[Lynx canadensis](#)*)
- T Murrelet, marbled CA, OR, WA (*[Brachyramphus marmoratus](#)*)
- T Owl, northern spotted (*[Strix occidentalis caurina](#)*)
- T Plover, western snowy Pacific coastal pop. (*[Charadrius alexandrinus nivosus](#)*)
- E Rabbit, pygmy Columbia Basin DPS (*[Brachylagus idahoensis](#)*)
- T Salmon, chinook Puget Sound (*[Oncorhynchus \(=Salmo\) tshawytscha](#)*)
- T Salmon, chinook fall Snake R. (*[Oncorhynchus \(=Salmo\) tshawytscha](#)*)
- T Salmon, chinook lower Columbia R. (*[Oncorhynchus \(=Salmo\) tshawytscha](#)*)
- E Salmon, chinook spring upper Columbia R. (*[Oncorhynchus \(=Salmo\) tshawytscha](#)*)
- T Salmon, chinook spring/summer Snake R. (*[Oncorhynchus \(=Salmo\) tshawytscha](#)*)
- T Salmon, chum Columbia R. (*[Oncorhynchus \(=Salmo\) keta](#)*)
- T Salmon, chum summer-run Hood Canal (*[Oncorhynchus \(=Salmo\) keta](#)*)
- T Salmon, sockeye U.S.A. (Ozette Lake, WA) (*[Oncorhynchus \(=Salmo\) nerka](#)*)
- T Sea turtle, green except where endangered (*[Chelonia mydas](#)*)
- E Sea turtle, leatherback (*[Dermochelys coriacea](#)*)
- T Sea-lion, Steller eastern pop. (*[Eumetopias jubatus](#)*)
- T Steelhead Puget Sound DPS (*[Oncorhynchus \(=Salmo\) mykiss](#)*)
- T Steelhead Snake R. Basin (*[Oncorhynchus \(=Salmo\) mykiss](#)*)

## Species Reports

- T Steelhead lower Columbia R. (*Oncorhynchus (=Salmo) mykiss*)
- T Steelhead upper Columbia R. Basin (*Oncorhynchus (=Salmo) mykiss*)
- T Trout, bull U.S.A., conterminous, lower 48 states (*Salvelinus confluentus*)
- (E) Whale, humpback (*Megaptera novaeangliae*)
- (E) Whale, killer Southern Resident DPS (*Orcinus orca*)
- (E) Wolf, gray Lower 48 States, except where delisted and where EXPN. Mexico. (*Canis lupus*)

## Plants -- 9

Status	Species/Listing Name
T	Catchfly, Spalding's ( <i>Silene spaldingii</i> )
T	Checker-mallow, Nelson's ( <i>Sidalcea nelsoniana</i> )
(E)	Checkermallow, Wenatchee Mountains ( <i>Sidalcea oregana var. calva</i> )
(E)	Desert-parsley, Bradshaw's ( <i>Lomatium bradshawii</i> )
T	Howellia, water ( <i>Howellia aquatilis</i> )
T	Ladies'-tresses, Ute ( <i>Spiranthes diluvialis</i> )
T	Lupine, Kincaid's ( <i>Lupinus sulphureus (=oreganus) ssp. kincaidii (=var. kincaidii)</i> )
T	Paintbrush, golden ( <i>Castilleja levisecta</i> )
(E)	Stickseed, showy ( <i>Hackelia venusta</i> )

Last updated: May 14, 2010

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**US Counties in which the Pygmy Rabbit, Columbia Basin DPS is known to occur:**

State	County
Washington	Adams
Washington	Benton
Washington	Douglas
Washington	Franklin
Washington	Grant
Washington	Lincoln

Export options: [CSV](#) | [EXCEL](#) | [XML](#) | [PDF](#)

This report contains Counties in which this species is known to occur. If you are looking for the Section 7 range (for Section 7 Consultations), please visit the [IPaC](#) application.

**US Counties in which the Woodland caribou, Selkirk Mountain population is known to occur:**

State	County
Idaho	Bonner
Idaho	Boundary
Washington	Pend Oreille

Export options: [CSV](#) | [EXCEL](#) | [XML](#) | [PDF](#)

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# Species Reports

Environmental Conservation Online System

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T	Lynx, Canada (Contiguous U.S. DPS) ( <i><a href="#">Lynx canadensis</a></i> )
T	Murrelet, marbled CA, OR, WA ( <i><a href="#">Brachyramphus marmoratus</a></i> )
T	Owl, northern spotted ( <i><a href="#">Strix occidentalis caurina</a></i> )
T	Plover, western snowy Pacific coastal pop. ( <i><a href="#">Charadrius alexandrinus nivosus</a></i> )
E	Rabbit, pygmy Columbia Basin DPS ( <i><a href="#">Brachylagus idahoensis</a></i> )
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[http://www.fws.gov/ecos/ajax/tess\\_public/pub/stateOccurrenceIndividual.jsp?state=WA](http://www.fws.gov/ecos/ajax/tess_public/pub/stateOccurrenceIndividual.jsp?state=WA)

5/14/2010

## Species Reports

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 T Paintbrush, golden (*Castilleja levisecta*)  
 E Stickseed, showy (*Hackelia venusta*)

Last updated: May 14, 2010

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# Species Profile

Environmental Conservation Online System



## Gray wolf (Canis lupus)

**Kingdom:** Animalia **Class:** Mammalia **Order:** Carnivora **Family:** Canidae

**Listing Status:** Endangered (and others listed below)

**Quick links:** [Federal Register](#) [Action Plans](#) [Recovery](#) [Critical Habitat](#) [Conservation Plans](#) [Petitions](#) [Life History](#) [Other Resources](#)

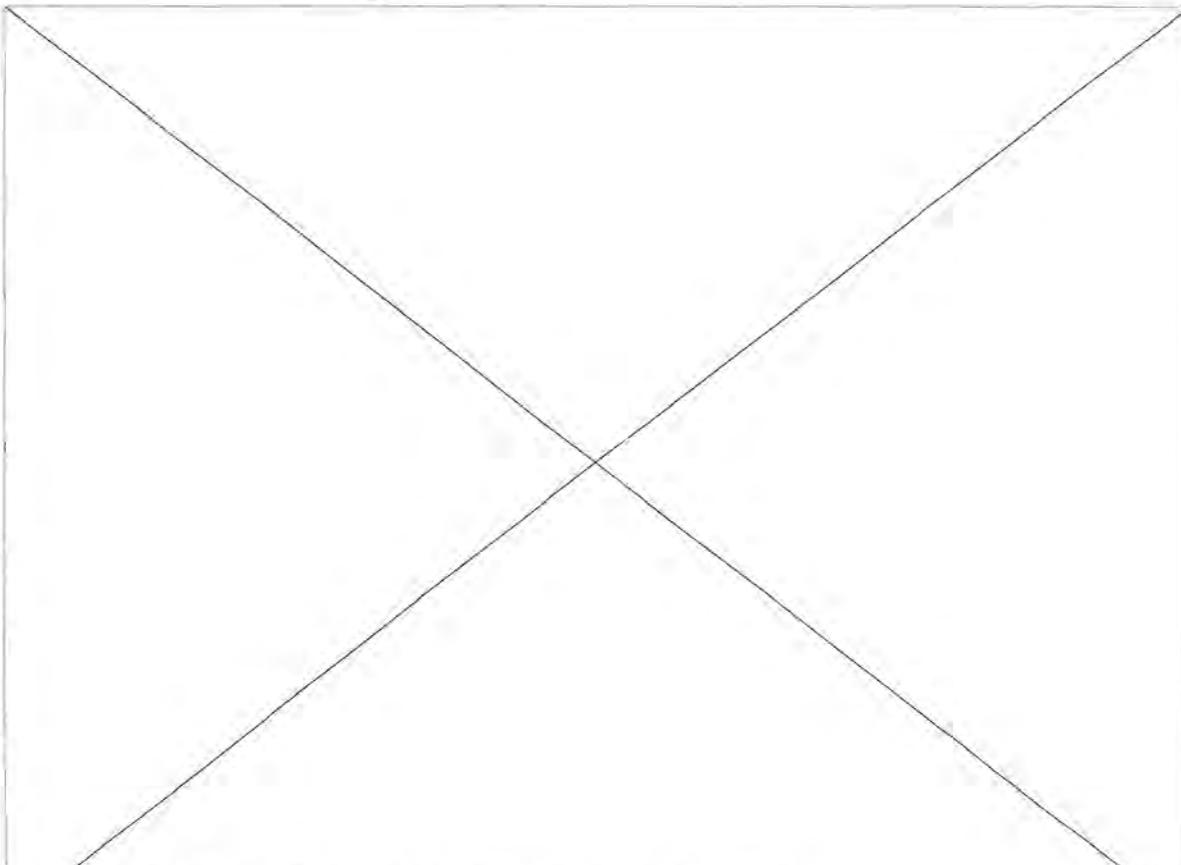
### General Information

The Gray Wolf, being a keystone predator, is an integral component of the ecosystems to which it typically belongs. The wide range of habitats in which wolves can thrive reflects their adaptability as a species, and includes temperate forests, mountains, tundra, taiga, and grasslands.

### Population detail

The FWS is currently monitoring the following populations of the Gray wolf

- Population location:** U.S.A., conterminous (lower 48) States, except: (1) where listed as an experimental population below; (2) Minnesota; and (3) MT, ID, eastern WA (that portion of WA east of the centerline of Highway 97 and Highway 17 north of Mesa and that portion of WA east of the centerline of Highway 395 south of Mesa), eastern OR (portion of OR east of the centerline of Highway 395 and



Species Profile for Gray wolf (*Canis lupus*)

Highway 78 north of Burns Junction and

that portion of OR east of the centerline of Highway 95 south of Burns Junction), and north central UT (that portion of UT east of the centerline of Highway 84 and north of Highway 80). Mexico.

**Listing status:** Endangered

**States/US Territories** in which this population is known to occur: [Arizona](#) , [Colorado](#) , [Michigan](#) , [New Mexico](#) , [North Dakota](#) , [Oregon](#) , [South Dakota](#) , [Utah](#) , [Washington](#) , [Wisconsin](#)

**US Counties** in which this population is known to occur: [View All](#)

**For more information:** [http://www.fws.gov/endangered/factsheets/gray\\_wolf\\_factsheet.pdf](http://www.fws.gov/endangered/factsheets/gray_wolf_factsheet.pdf)

- **Population location:** U.S.A. (MN)

**Listing status:** Threatened

**States/US Territories** in which this population is known to occur: [Minnesota](#)

**US Counties** in which this population is known to occur: [View All](#)

**USFWS Refuges** in which this population is known to occur: AGASSIZ NATIONAL WILDLIFE REFUGE , DETROIT LAKES WETLAND MANAGEMENT DISTRICT , FERGUS FALLS WETLAND MANAGEMENT DISTRICT , HAMDEN SLOUGH NATIONAL WILDLIFE REFUGE , LITCHFIELD WETLAND MANAGEMENT DISTRICT ... [Show All Refuges](#)

**For more information:** <http://www.fws.gov/midwest/wolf/>

- **Population location:** Northern Rocky Mtns DPS - WY significant portion of the range

**Listing status:** Experimental Population, Non-Essential

**States/US Territories** in which this population is known to occur: [Wyoming](#)

**US Counties** in which this population is known to occur: [View All](#)

- **Population location:** U.S.A. (portions of AZ, NM and TX - see section 17.84(k))

**Listing status:** Experimental Population, Non-Essential

**States/US Territories** in which this population is known to occur: [Arizona](#) , [New Mexico](#) , [Texas](#)

**US Counties** in which this population is known to occur: [View All](#)

**For more information:** <http://www.fws.gov/southwest/es/mexicanwolf/>

- **Population location:** Northern Rocky Mountain Gray Wolf Distinct Population Segment; Montana, Wyoming, Idaho, eastern Washington, eastern Oregon, and north central Utah

**Listing status:** Delisted due to Recovery

**States/US Territories** in which this population is known to occur: [Idaho](#) , [Montana](#) , [Oregon](#) , [Utah](#) , [Washington](#) , [Wyoming](#)

**US Counties** in which this population is known to occur: [View All](#)

**For more information:** <http://www.fws.gov/mountain-prairie/species/mammals/wolf/>

**Current Listing Status Summary**

Status	Date Listed	Lead Region	Where Listed
Endangered	03/11/1967	<a href="#">Mountain-Prairie Region (Region 6)</a>	Lower 48 States, except where delisted and where EXPN. Mexico.
Threatened	04/10/1978	<a href="#">Great Lakes-Big Rivers Region (Region 3)</a>	MN
Experimental Population, Non-Essential	05/04/2009	<a href="#">Mountain-Prairie Region (Region 6)</a>	Northern Rocky Mtns DPS - WY significant portion of the range
Experimental Population, Non-Essential	01/12/1998	<a href="#">Southwest Region (Region 2)</a>	Mexican gray wolf, EXPN population
Delisted due to Recovery	03/28/2008	<a href="#">Mountain-Prairie Region (Region 6)</a>	Northern Rocky Mountain DPS

» **Federal Register Documents**

**US Counties within Washington in which the Wenatchee Mountains checkermallow, is known to occur:**

State	County
Washington	Chelan

Export options: [CSV](#) | [EXCEL](#) | [XML](#) | [PDF](#)

This report contains Counties in which this species is known to occur. If you are looking for the Section 7 range (for Section 7 Consultations), please visit the [IPaC](#) application.

**US Counties within Washington in which the Bradshaw's desert-parsley, is known to occur:**

State      County

Washington Clark

Export options: [CSV](#) | [EXCEL](#) | [XML](#) | [PDF](#)

This report contains Counties in which this species is known to occur. If you are looking for the Section 7 range (for Section 7 Consultations), please visit the [IPaC](#) application.

## US Counties in which the Showy stickseed, is known to occur:

State	County
-------	--------

Washington	Chelan
------------	--------

Export options: [CSV](#) | [EXCEL](#) | [XML](#) | [PDF](#)

This report contains Counties in which this species is known to occur. If you are looking for the Section 7 range (for Section 7 Consultations), please visit the [IPaC](#) application.



WASHINGTON DEPARTMENT OF FISH AND WILDLIFE

# Species of Concern

## State Threatened Species

"Any wildlife species native to the state of Washington that is likely to become an endangered species within the foreseeable future throughout a significant portion of its range within the state without cooperative management or removal of threats."  
 WAC 232-12-297, Section 2.5

## State Threatened Species

Current through June 1, 2009

COMMON NAME	SCIENTIFIC NAME	ANIMAL TYPE	FEDERAL STATUS
Ferruginous hawk	<i>Buteo regalis</i>	Bird	FCo
Marbled murrelet	<i>Brachyramphus marmoratus</i>	Bird	FT
Sage grouse	<i>Centrocercus urophasianus</i>	Bird	FC
Sharp-tailed grouse	<i>Tympanuchus phasianellus</i>	Bird	FCo
Lynx	<i>Lynx canadensis</i>	Mammal	FT
Mazama (Western) pocket gopher	<i>Thomomys mazama</i>	Mammal	FC
Steller sea lion	<i>Eumetopias jubatus</i>	Mammal	FT
Western gray squirrel	<i>Sciurus griseus</i>	Mammal	FCo
Green sea turtle	<i>Chelonia mydas</i>	Reptile	FT
Loggerhead sea turtle	<i>Caretta caretta</i>	Reptile	FT

### Search Species Lists

**SORT RESULTS BY:**

- Common Name
- Scientific Name
- Animal Type

[Search Listings](#)

[Advanced Search](#)

### Species of Concern Lists

- [Endangered Species](#)
- [Threatened Species](#)
- [Sensitive Species](#)
- [State Candidate Species](#)

- [Complete SOC List](#)
- [Main SOC Page](#)

### Status Codes:

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- FT: Federal Threatened
- FC: Federal Candidate
- FCo: Federal Species of Concern
- SE: State Endangered
- ST: State Threatened
- SC: State Candidate
- SS: State Sensitive

### Related Links

- [State Monitor Species](#)

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 E-mail <[webmaster@dfw.wa.gov](mailto:webmaster@dfw.wa.gov)>

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Search ?

Suitabilities and Limitations Ratings ?

[Open All](#) [Close All](#) ?

Building Site Development ?

Construction Materials ?

Disaster Recovery Planning ?

Land Classifications

Conservation Tree and Shrub Group

Ecological Site ID

Ecological Site Name

Farmland Classification

[View Description](#) [View Rating](#)

View Options ?

Map

Table

Description of Rating

Rating Options

Detailed Description

Advanced Options ?

[View Description](#) [View Rating](#)

Forage Suitability Group ID (Component Table)

Hydric Rating by Map Unit

Irrigated Capability Class

Irrigated Capability Subclass

Nonirrigated Capability Class

Nonirrigated Capability Subclass

Soil Taxonomy Classification

Land Management ?

Military Operations ?

Recreational Development ?

Sanitary Facilities ?

Vegetative Productivity ?

Waste Management ?

Water Management ?

Map - Farmland Classification

Scale (map to scale)



**Warning: Soil Ratings Map may not be valid at this scale.**

You have zoomed in beyond the scale at which the soil map for this area is intended to be used. Mapping of soils is done at a particular scale. The soil surveys that comprise your AOI were mapped at 1:24,000. The design of map units and the level of detail shown in the resulting soil map are dependent on that map scale. Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Tables - Farmland Classification - Summary By Map Unit

**Summary by Map Unit - King County Area, Washington**

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
AgB	Alderwood gravelly sandy loam, 0 to 6 percent slopes	Prime farmland if irrigated	29.3	17.1%
Bu	Buckley silt loam	Prime farmland if drained	141.9	82.9%
<b>Totals for Area of Interest</b>			<b>171.1</b>	<b>100.0%</b>

Description - Farmland Classification

Farmland classification identifies map units as prime farmland, farmland of statewide importance, farmland of local importance, or unique farmland. It identifies the location and extent of the soils that are best suited to food, feed, fiber, forage, and oilseed crops. NRCS policy and procedures on prime and unique farmlands are published in the "Federal Register," Vol. 43, No. 21, January 31, 1978.

Rating Options - Farmland Classification

**Aggregation Method:** No Aggregation Necessary

**Tie-break Rule:** Lower

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6/25/2010



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    - [View Description](#) [View Soil Report](#)
  - Options
    - Include Minor Soils
    - [View Description](#) [View Soil Report](#)
- Land Capability Classification
  - Prime and other Important Farmlands
  - Prime and other Important Farmlands (IA)
  - Taxonomic Classification of the Soils
- Land Management
  - Recreational Development
  - Sanitary Facilities
  - Soil Chemical Properties
  - Soil Erosion
  - Soil Physical Properties
  - Soil Qualities and Features
  - Vegetative Productivity
  - Waste Management
  - Water Features
  - Water Management

Soil Map

Warning: Soil Map may not be valid at this scale.

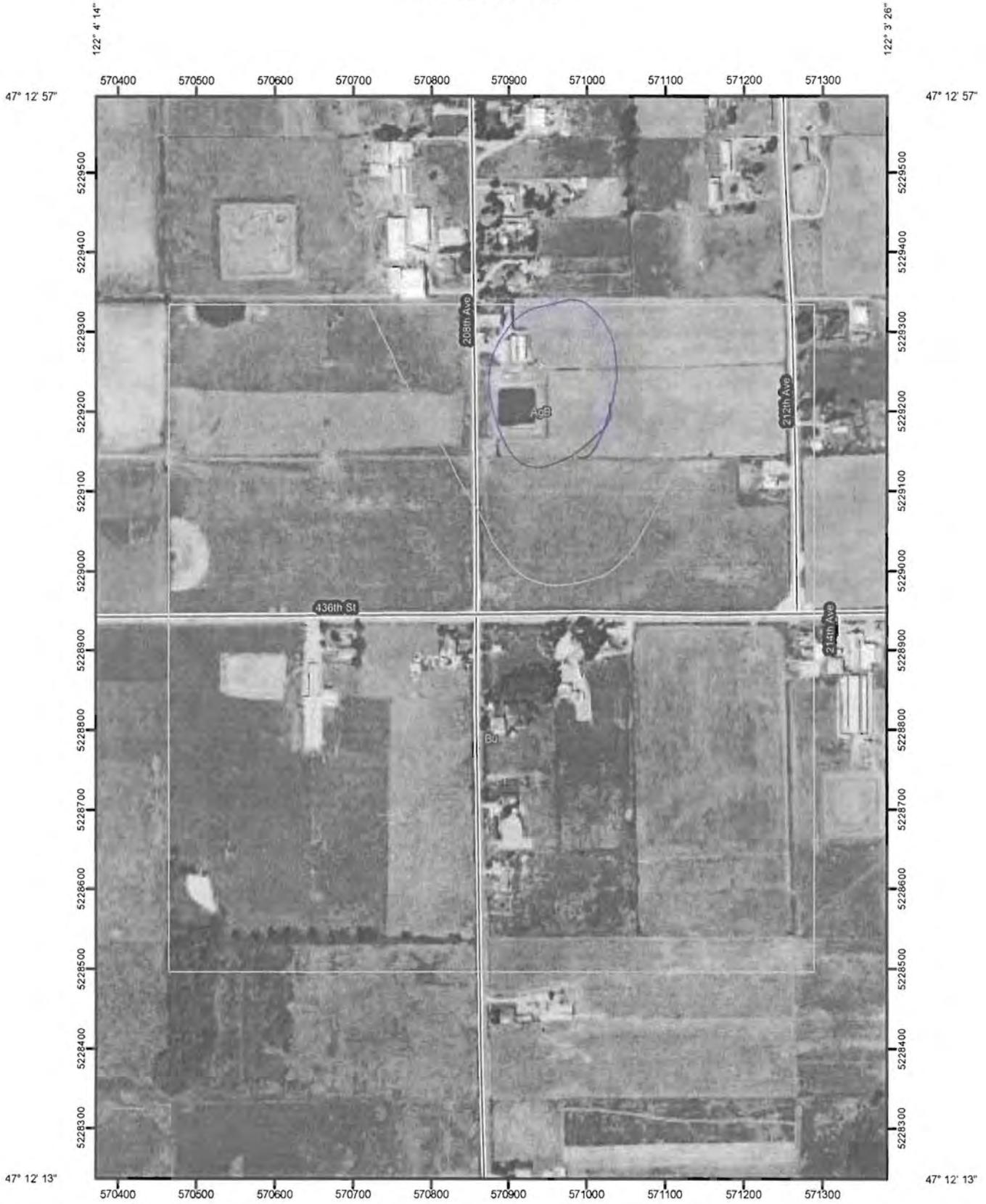
Report — Hydric Soils

King County Area, Washington

Map symbol and map unit name	Component	Percent of map unit	Landform	Hydric criteria
AgB—Alderwood gravelly sandy loam, 0 to 6 percent slopes	Buckley	10	Depressions	2B3
	Norma	4	Depressions	2B3, 3
	Bellingham	4	Depressions	2B3
	Tukwila	4	Depressions	1, 3
	Shalcar	3	Depressions	1, 3
Bu—Buckley silt loam	Buckley	90	Mudflows	2B3
	Seattle	3	Depressions	1, 3
	Tukwila	3	Depressions	1, 3

Description — Hydric Soils

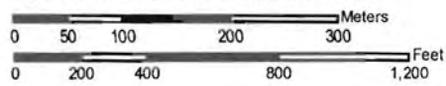
Soil Map—King County Area, Washington  
(Rainier Biogas LLC)



122° 4' 14"



Map Scale: 1:6,490 if printed on A size (8.5" x 11") sheet.



122° 3' 26"

### MAP LEGEND

	Area of Interest (AOI)		Very Stony Spot
	Area of interest (AOI)		Wet Spot
	Soils		Other
	Soil Map Units	<b>Special Line Features</b>	
<b>Special Point Features</b>			Gully
	Blowout		Short Steep Slope
	Borrow Pit		Other
	Clay Spot	<b>Political Features</b>	
	Closed Depression		Cities
	Gravel Pit	<b>Water Features</b>	
	Gravelly Spot		Oceans
	Landfill		Streams and Canals
	Lava Flow	<b>Transportation</b>	
	Marsh or swamp		Rails
	Mine or Quarry		Interstate Highways
	Miscellaneous Water		US Routes
	Perennial Water		Major Roads
	Rock Outcrop		Local Roads
	Saline Spot		
	Sandy Spot		
	Severely Eroded Spot		
	Sinkhole		
	Slide or Slip		
	Sodic Spot		
	Spoil Area		
	Stony Spot		

### MAP INFORMATION

Map Scale: 1:6,490 if printed on A size (8.5" × 11") sheet.

The soil surveys that comprise your AOI were mapped at 1:24,000.

Please rely on the bar scale on each map sheet for accurate map measurements.

Source of Map: Natural Resources Conservation Service  
Web Soil Survey URL: <http://websoilsurvey.nrcs.usda.gov>  
Coordinate System: UTM Zone 10N NAD83

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: King County Area, Washington  
Survey Area Data: Version 6, Sep 22, 2009

Date(s) aerial images were photographed: 7/24/2006

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

## Map Unit Legend

King County Area, Washington (WA633)			
Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
AgB	Alderwood gravelly sandy loam, 0 to 6 percent slopes	29.3	17.1%
Bu	Buckley silt loam	141.9	82.9%
Totals for Area of Interest		171.1	100.0%

*All within  
AgB*

DEPARTMENT OF HOMELAND SECURITY FEDERAL EMERGENCY MANAGEMENT AGENCY <b>STANDARD FLOOD HAZARD DETERMINATION FORM (SFHDF)</b>		See The Attached Instructions	O.M.B. No. 1660-0040 Expires December 31, 2011	
<b>SECTION I - LOAN INFORMATION</b>				
1. LENDER NAME AND ADDRESS USDA Rural Development 4300 Goodfellow Blvd St. Louis, MO 63120  Requested By: Elizabeth Elliott		2. COLLATERAL (Building/Mobile Home/Personal Property) PROPERTY ADDRESS (Legal Description may be attached) 43218 208TH AVE SE ENUMCLAW, WA 98022  Borrower:		
3. LENDER ID. NO. USDA Rural Developm	4. LOAN IDENTIFIER	5. AMOUNT OF FLOOD INSURANCE REQUIRED \$		
<b>SECTION II</b>				
<b>A. NATIONAL FLOOD INSURANCE PROGRAM (NFIP) COMMUNITY JURISDICTION</b>				
1. NFIP Community Name	2. County(ies)	3. State	4. NFIP Community Number	
KING COUNTY	UNINCORPORATED AREAS	WA	530071	
<b>B. NATIONAL FLOOD INSURANCE PROGRAM (NFIP) DATA AFFECTING BUILDING/MOBILE HOME</b>				
1. NFIP Map Number or Community-Panel Number (Community name, if not the same as "A")	2. NFIP Map Panel Effective/ Revised Date	3. LOMA/LOMR <input type="checkbox"/> Yes <input type="checkbox"/> No Date	4. Flood Zone	5. No NFIP Map
53033C 1485F	05/16/95	<input type="checkbox"/> Yes <input type="checkbox"/> No Date	X	
<b>C. FEDERAL FLOOD INSURANCE AVAILABILITY (Check all that apply)</b>				
1. <input checked="" type="checkbox"/> Federal Flood insurance is available (community participates in NFIP). <input checked="" type="checkbox"/> Regular Program <input type="checkbox"/> Emergency Program of NFIP				
2. <input type="checkbox"/> Federal Flood insurance is not available because community is not participating in the NFIP				
3. <input type="checkbox"/> Building/Mobile Home is in a Coastal Barrier Resources Area (CBRA) or Otherwise Protected Area (OPA), Federal Flood insurance may not be available. CBRA/OPA designation date: _____				
<b>D. DETERMINATION</b>				
<b>IS BUILDING/MOBILE HOME IN SPECIAL FLOOD HAZARD AREA (ZONES CONTAINING THE LETTERS "A" OR "V")? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO</b>				
If yes, flood insurance is required by the Flood Disaster Protection Act of 1973. If no, flood insurance is not required by the Flood Disaster Protection Act of 1973.				
<b>E. COMMENTS (Optional):</b>				
THIS FLOOD DETERMINATION IS PROVIDED TO THE LENDER PURSUANT TO THE FLOOD DISASTER PROTECTION ACT. IT SHOULD NOT BE USED FOR ANY OTHER PURPOSE.				
This determination is based on examining the NFIP map, any Federal Emergency Management Agency revisions to it, and any other information needed to locate the building/mobile home on the NFIP map.				
<b>F. PREPARER'S INFORMATION</b>				
NAME, ADDRESS, TELEPHONE NUMBER (If other than Lender) First American Flood Data Services 11902 Burnet Road Austin, TX 78758 1-800-447-1772		DATE OF DETERMINATION 05/14/10 at 12:46 PM CDT  FloodCert #: 1005D72988  *** LIFE-OF-LOAN ***		



Scale: 16 % LOMC: 06-10-0085A-530071

Help

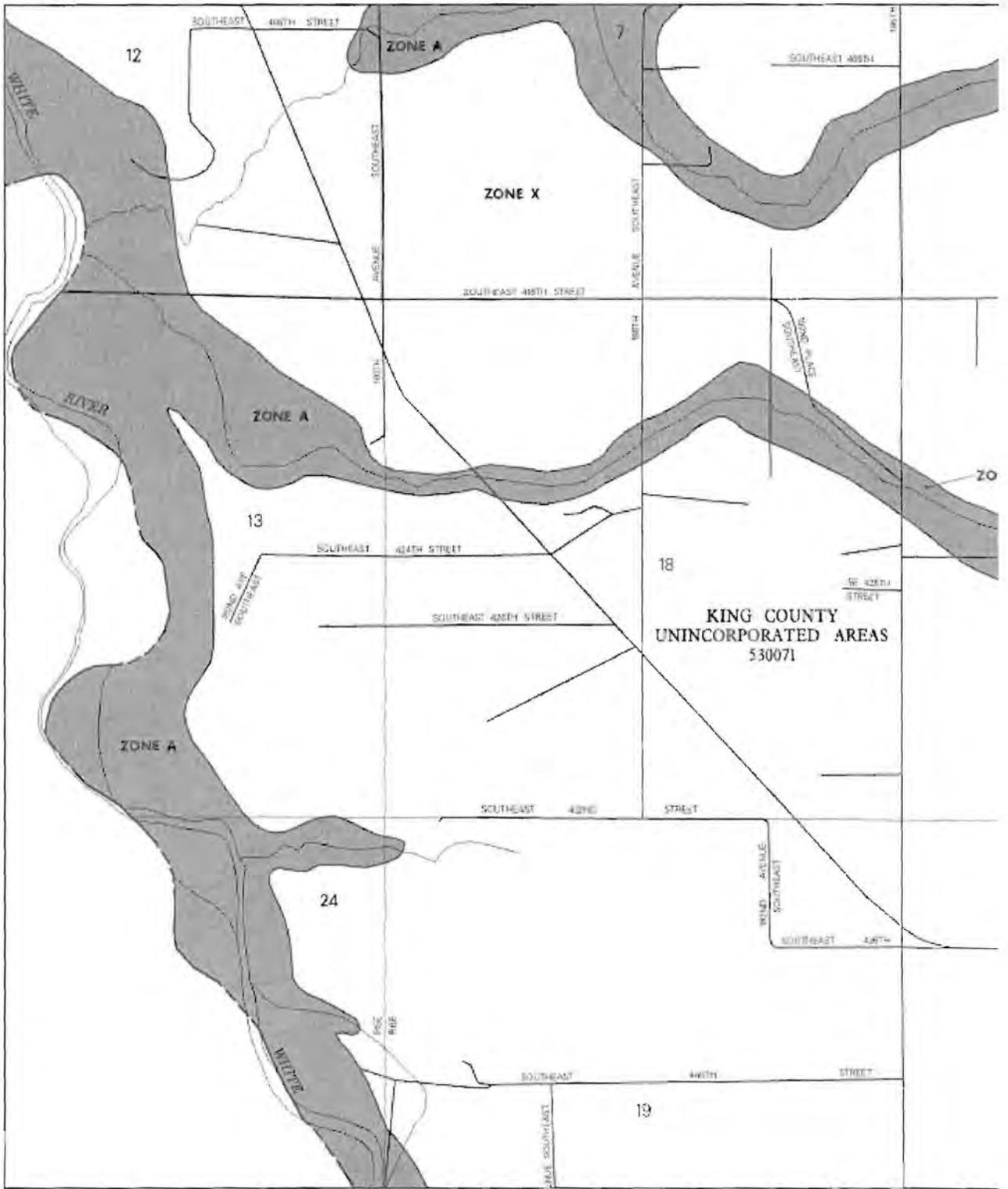
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AA A

Area of Interest (AOI) | Soil Map | Soil Data Explorer | Shopping Cart (Free)

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Soil Map—King County Area, Washington  
(Rainier Biogas LLC Enumclaw project)



Map Scale: 1:2,940 if printed on A size (8.5" x 11") sheet.



### MAP LEGEND

#### Area of Interest (AOI)

 Area of Interest (AOI)

#### Soils

 Soil Map Units

#### Special Point Features

-  Blowout
-  Borrow Pit
-  Clay Spot
-  Closed Depression
-  Gravel Pit
-  Gravelly Spot
-  Landfill
-  Lava Flow
-  Marsh or swamp
-  Mine or Quarry
-  Miscellaneous Water
-  Perennial Water
-  Rock Outcrop
-  Saline Spot
-  Sandy Spot
-  Severely Eroded Spot
-  Sinkhole
-  Slide or Slip
-  Sodic Spot
-  Spoil Area
-  Stony Spot

 Very Stony Spot

 Wet Spot

 Other

#### Special Line Features

-  Gully
-  Short Steep Slope
-  Other

#### Political Features

 Cities

#### Water Features

-  Oceans
-  Streams and Canals

#### Transportation

-  Rails
-  Interstate Highways
-  US Routes
-  Major Roads
-  Local Roads

### MAP INFORMATION

Map Scale: 1:2,940 if printed on A size (8.5" × 11") sheet.

The soil surveys that comprise your AOI were mapped at 1:24,000.

Please rely on the bar scale on each map sheet for accurate map measurements.

Source of Map: Natural Resources Conservation Service  
Web Soil Survey URL: <http://websoilsurvey.nrcs.usda.gov>  
Coordinate System: UTM Zone 10N NAD83

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: King County Area, Washington  
Survey Area Data: Version 6, Sep 22, 2009

Date(s) aerial images were photographed: 7/24/2006

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

## Map Unit Legend

King County Area, Washington (WA633)			
Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
AgB	Alderwood gravelly sandy loam, 0 to 6 percent slopes	30.9	79.2%
AgC	Alderwood gravelly sandy loam, 6 to 15 percent slopes	0.2	0.5%
Bu	Buckley silt loam	7.9	20.2%
<b>Totals for Area of Interest</b>		<b>39.0</b>	<b>100.0%</b>

## Hydric Soils

This table lists the map unit components that are rated as hydric soils in the survey area. This list can help in planning land uses; however, onsite investigation is recommended to determine the hydric soils on a specific site (National Research Council, 1995; Hurt and others, 2002).

The three essential characteristics of wetlands are hydrophytic vegetation, hydric soils, and wetland hydrology (Cowardin and others, 1979; U.S. Army Corps of Engineers, 1987; National Research Council, 1995; Tiner, 1985). Criteria for all of the characteristics must be met for areas to be identified as wetlands. Undrained hydric soils that have natural vegetation should support a dominant population of ecological wetland plant species. Hydric soils that have been converted to other uses should be capable of being restored to wetlands.

Hydric soils are defined by the National Technical Committee for Hydric Soils (NTCHS) as soils that formed under conditions of saturation, flooding, or ponding long enough during the growing season to develop anaerobic conditions in the upper part (Federal Register, 1994). These soils, under natural conditions, are either saturated or inundated long enough during the growing season to support the growth and reproduction of hydrophytic vegetation.

The NTCHS definition identifies general soil properties that are associated with wetness. In order to determine whether a specific soil is a hydric soil or nonhydric soil, however, more specific information, such as information about the depth and duration of the water table, is needed. Thus, criteria that identify those estimated soil properties unique to hydric soils have been established (Federal Register, 2002). These criteria are used to identify map unit components that normally are associated with wetlands. The criteria used are selected estimated soil properties that are described in "Soil Taxonomy" (Soil Survey Staff, 1999) and "Keys to Soil Taxonomy" (Soil Survey Staff, 2006) and in the "Soil Survey Manual" (Soil Survey Division Staff, 1993).

If soils are wet enough for a long enough period of time to be considered hydric, they should exhibit certain properties that can be easily observed in the field. These visible properties are indicators of hydric soils. The indicators used to make onsite determinations of hydric soils are specified in "Field Indicators of Hydric Soils in the United States" (Hurt and Vasilas, 2006).

Hydric soils are identified by examining and describing the soil to a depth of about 20 inches. This depth may be greater if determination of an appropriate indicator so requires. It is always recommended that soils be excavated and described to the depth necessary for an understanding of the redoximorphic processes. Then, using the completed soil descriptions, soil scientists can compare the soil features required by each indicator and specify which indicators have been matched with the conditions observed in the soil. The soil can be identified as a hydric soil if at least one of the approved indicators is present.

Map units that are dominantly made up of hydric soils may have small areas, or inclusions, of nonhydric soils in the higher positions on the landform, and map units dominantly made up of nonhydric soils may have inclusions of hydric soils in the lower positions on the landform.

The criteria for hydric soils are represented by codes in the table (for example, 2B3). Definitions for the codes are as follows:

1. All Histels except for Folistels, and Histosols except for Folistels.
2. Soils in Aquic suborders, great groups, or subgroups, Albolls suborder, Historthels great group, Histoturbels great group, or Andic, Cumulic, Pachic, or Vitrandic subgroups that:
  - A. are somewhat poorly drained and have a water table at the surface (0.0 feet) during the growing season, or
  - B. are poorly drained or very poorly drained and have either:
    - i. a water table at the surface (0.0 feet) during the growing season if textures are coarse sand, sand, or fine sand in all layers within a depth of 20 inches, or
    - ii. a water table at a depth of 0.5 foot or less during the growing season if saturated hydraulic conductivity (Ksat) is equal to or greater than 6.0 in/hr in all layers within a depth of 20 inches, or
    - iii. a water table at a depth of 1.0 foot or less during the growing season if saturated hydraulic conductivity (Ksat) is less than 6.0 in/hr in any layer within a depth of 20 inches.
3. Soils that are frequently ponded for long or very long duration during the growing season.
4. Soils that are frequently flooded for long or very long duration during the growing season.

References:

- Cowardin, L.M., V. Carter, F.C. Golet, and E.T. LaRoe. 1979. Classification of wetlands and deep-water habitats of the United States. U.S. Fish and Wildlife Service FWS/OBS-79/31.
- Federal Register. September 18, 2002. Hydric soils of the United States.
- Federal Register. July 13, 1994. Changes in hydric soils of the United States.
- Hurt, G.W., and L.M. Vasilas, editors. Version 6.0, 2006. Field indicators of hydric soils in the United States.
- National Research Council. 1995. Wetlands: Characteristics and boundaries.
- Soil Survey Division Staff. 1993. Soil survey manual. Soil Conservation Service. U.S. Department of Agriculture Handbook 18.
- Soil Survey Staff. 2006. Keys to soil taxonomy. 10th edition. U.S. Department of Agriculture, Natural Resources Conservation Service.
- Soil Survey Staff. 1999. Soil taxonomy: A basic system of soil classification for making and interpreting soil surveys. 2nd edition. Natural Resources Conservation Service. U.S. Department of Agriculture Handbook 436.
- Tiner, R.W., Jr. 1985. Wetlands of Delaware. U.S. Fish and Wildlife Service and Delaware Department of Natural Resources and Environmental Control, Wetlands Section.
- United States Army Corps of Engineers, Environmental Laboratory. 1987. Corps of Engineers wetlands delineation manual. Waterways Experiment Station Technical Report Y-87-1.

## Report—Hydric Soils

Hydric Soils— King County Area, Washington				
Map symbol and map unit name	Component	Percent of map unit	Landform	Hydric criteria
AgB—Alderwood gravelly sandy loam, 0 to 6 percent slopes				
	Buckley	10	Depressions	2B3
	Norma	4	Depressions	2B3, 3
	Bellingham	4	Depressions	2B3
	Tukwila	4	Depressions	1, 3
	Shalcar	3	Depressions	1, 3
Bu—Buckley silt loam				
	Buckley	90	Mudflows	2B3
	Seattle	3	Depressions	1, 3
	Tukwila	3	Depressions	1, 3

### Data Source Information

Soil Survey Area: King County Area, Washington  
 Survey Area Data: Version 6, Sep 22, 2009

# PROJECT REVIEW SHEET – EZ1

## HISTORIC & CULTURAL RESOURCES REVIEW

**PROPERTY / CLIENT NAME:** Rainier Bioqas LLC

**FUNDING AGENCY:** USDA Rural Development

<b>Project Applicant:</b>	<u>Rainier Bioqas LLC</u>	
<b>Contact Person:</b>	<u>Daryl Maas</u>	
<b>Address:</b>	<u>20206 SE 436<sup>th</sup> St</u>	
<b>City, State:</b>	<u>Enumclaw</u>	<b>Zip:</b> <u>wa</u>
<b>Phone/ FAX:</b>	<u>210-527-7631</u>	<b>County:</b> <u>King</u>
<b>E-Mail:</b>	<u>daryl@farmpower.com</u>	

**Funding Agency:**

Organization:	<u>USDA Rural Development</u>
Address:	<u>2021 E. College Way</u>
City, State:	<u>Mt. Vernon, WA</u> <b>Zip:</b> <u>98273</u>
Phone:	<u>360-428-4322 Sharon Exley</u>

---

### PLEASE DESCRIBE THE TYPE OF WORK TO BE COMPLETED

(Be as detailed as possible to avoid having to provide additional information)

**Provide a detailed description of the proposed project:**

This is a proposed anaerobic digestion system to be constructed within the farm boundaries of the Ritter dairy farm in Enumclaw. Please see attachment for additional information.

---

**Describe the existing project site conditions:**

This is an operating farm. The digester building and tank will be constructed on a portion of the farm that is currently covered in grass.

---

**Describe the proposed ground disturbing activities:**

The land has been previously tilled to a depth of approximately 30". The new construction is expected to require excavation to a depth of approximately 10 feet.

---

**Check if building(s) will be altered or demolished. If so please complete a DAHP Determination of Eligibility "EZ2" form for each building effected by the proposed project.**

**PLEASE ATTACH A COPY OF THE RELEVANT PORTION OF A 7.5 SERIES  
USGS QUAD MAP AND OUTLINE THE PROJECT IMPACT AREA.**

USGS Quad maps are available on-line at <http://maptech.mytopo.com/onlinemaps/index.cfm>

## Project Location

Township: 20

Range: 6 Section: 20

Address: 43218 208<sup>th</sup> Ave SE,

City: Enumclaw County: King

**Place Map Here**

---

Mail this form to:

Department of Archaeology and Historic Preservation or E-mail to:  
1063 S. Capitol Way, Suite 106  
P.O. Box 48343  
Olympia, WA 98504-8343

Robert Whitlam, Ph.D.  
State Archaeologist, DAHP  
(360) 586-3080  
[rob.whitlam@dahp.wa.gov](mailto:rob.whitlam@dahp.wa.gov)

*(Within 30 days DAHP will mail their opinion back to you.)*

Please be aware that this form may only initiate consultation. For some projects, DAHP may require additional information to complete our review such as plans, specifications, and photographs. An historic property inventory form may need to be completed by a qualified preservation professional.

Rainier Biogas  
NEPA Application

1. **Photographs:** see attached site plan and location drawings.
2. **Project Description:**

Physical Site The Rainier Biogas site will be located on farmland off 208<sup>th</sup> Ave SE just west of Enumclaw in King County. The land in question is located on a 20 acre parcel with county parcel number 2020069001. The land is owned by Ritter Dairy LLC. The Rainier Biogas project will lease a portion of this parcel not to exceed four acres. The land is zoned Agricultural and Farm (A-35). All of the land is located within a King County Agricultural Production District.

Site Alternatives The site has been selected after researching other alternatives for locating a manure digester facility. Digesters require a large supply of manure nearby in order to make the facility economically efficient, cause minimal traffic impact, and provide beneficial services to farms. The site selected for this project is ideal in that it lies between two closely-spaced dairy farms, with several other dairy farms nearby. These farms can supply manure to the project and also have the necessary land to receive the digester's processed manure. Digesters also should be located within gravity-flow distance of an operational manure lagoon for emergency overflow purposes. This site contains its own lagoon that is available for project use. Finally, digesters should be located sufficiently far from residences to minimize disruption from digester odors, traffic, and manure spreading. This location also meets that criterion. Alternative locations either did not have a useable manure lagoon, or were not located sufficiently close to an adequate supply of manure and land to spread the manure upon.

Environmental Review This parcel contains some farm buildings on the west edge, and the remainder of the land is in active crop production. The leased area for the project site will consist mostly of farmland, although some existing structures may also be used to support the project. The project site is planted with either grass or corn, which is regularly cut and stored for cow food with applications of cow manure between cuttings. There is no known wildlife use of the site, and no significant vegetation other than crops. The traffic near the site is light and consists largely of agricultural vehicles. The surrounding land is all zoned Agricultural or Rural and is used as farmland or isolated homes. Preliminary research indicates the land is flat and ranges between 641 to 644 feet above sea level. There are no known critical areas on the site or impact by the project. According to current FEMA flood maps, no part of the site is in the 100-year floodplain. An elevation certificate will be obtained for each new building that requires it. According to NRCS data, the site's soil is about 90% Alderwood Gravelly Sandy Loam, 0 to 6 Percent Slopes, while the remainder is Buckley Silt Loam. Soil compression tests and cultural resources surveys are anticipated but not completed.

Project Description Farm Power will install an anaerobic manure digester, a concrete receiving pit, and a mechanical building with an attached fiber storage area. There will also be one pipeline associated with the project (detailed in section on Specific Improvements). A manure digester is a heated, concrete vessel that processes dairy manure and other organic wastes in an oxygen-free environment designed to induce digestion by anaerobic bacteria. Afterwards, the digested fiber solids are separated and dried. Most of the fiber will be returned to participating dairy farms for use as cow bedding. The processed

Rainier Biogas  
NEPA Application

manure liquid returns to the farms via truck or pipe and is stored in existing farmers' lagoons and spread on fields in accordance with the Department of Agriculture's Livestock Nutrient Management Program. The digester facility itself will be operated in accordance with the Department of Ecology's Guidelines for Operating an Anaerobic Digester Exempt from Solid Waste Permitting, which allows the importation of limited food-based materials for processing in the digester. The digestion process kills insect larvae, bacteriological pathogens and weed seeds; it greatly reduces manure odor and breaks down macronutrients for faster plant uptake and reduced risk of nitrate runoff. Additionally, Rainier Biogas will install post-digestion equipment to remove solids from the manure. This will result in reduction in manure macronutrients phosphorous and nitrogen. The reduced nutrient content of the manure, as well as the reduction of chemical oxygen demand and near-elimination of manure fecal coliform will protect area water quality and also reduce farmers' manure application expenses. The harvested nutrients will meet Washington Class A Biosolids specifications (although they will contain no "biosolids" materials such as human wastes) and will be sold into various soil amendment markets or else land-applied as manure on fields that can absorb the nutrients at an agronomic rate. The digestion process also produces methane-rich biogas which has a variety of uses. The gas will be burned in a piston engine generator on site to create electricity for export to the Puget Sound Energy electrical grid while also heating the digester vessel to sustain bacteria growth and reduce pathogens.

Specific Improvements The facility will be built by Andgar Corporation, of Ferndale Washington. Andgar has constructed Washington's four operational manure digesters.

The anaerobic digester to be constructed on this site will measure approximately 75x175 feet. It is a hollow concrete box 16 feet tall in total and will be buried approximately 8 feet in the ground. Earth is piled against the digester on all sides as insulation.

On one side of the digester there will be a "nutrient reduction area consisting of an additional concrete box measuring 30x60, and holding two vertical metal containers approximately seven feet tall and four feet in diameter. Just west of that area will be another concrete settling pond measuring 15x50.

Next to the digester will sit an approximately 45x45 pre-engineered steel mechanical building that houses the control equipment, electrical transfer equipment, and a continuous duty Guascor SFGDL-560 piston gensets that run on methane with an electrical output of 750 kW. Prior to construction, the project will submit a Notice of Construction to the Puget Sound Clean Air Authority (PSCAA), and it we expect to complete a New Source Review and operate the facility under an emissions permit from PSCAA. Excess methane gas from the digester is flared so that no combustible gas will be stored on site. There will also be a roughly 45x25 covered area beside the mechanical building for storing digested fiber and a 20x75 concrete slab for electrical other auxiliary equipment.

The project will install an in-ground concrete receiving tank for receiving manure and other organic wastes. The existing on-site manure lagoon may also serve as a holding vessel for manures entering or leaving the digester.

Rainier Biogas  
NEPA Application

The project will install one set of parallel pipelines as shown on the area imagery provided. These pipelines will deliver manure from the two partner farm shown, and then return processed manure to the farm's storage lagoons. These pipelines will be located and design in consultation with King County to ensure they meet all zoning and environmental requirements. The pipeline from De Groot Dairy faces no obstacles other than 208<sup>th</sup> Avenue.

Operations Manure from the nearest farm will be delivered to the facility via underground pipes. Manure from up to four other farms will be trucked to and from the digester during business hours 6-7 days per week. The average number of truck round trips per day will be 10. This truck traffic is within norms for agricultural operations in the area, and will be largely offset by the elimination of the other trucking of manure by farmers that currently takes place to transfer liquids or solids. After processing in the digester, the digested manures will be carried back to the contributing farms on the trucks return trips, or else pumped to nearby manure lagoons and applied to land in accordance with the Washington State Department of Agriculture's guidelines for land application of livestock nutrients. In addition to liquid manure, the facility will generate a digester manure solids products. The facility will create approximately one truck round trip per day for the hauling of digested fiber to farms. This traffic will be more than offset, since the digester's fiber will eliminate farms' need for sawdust bedding and the semi traffic its delivery creates. The project's engine will run continuously, but no noise or vibration is expected to be perceptible at the property line. Personnel operating the facility will be on site one or more times per day, although the facility will not be continually occupied.

Stormwater The roads on site will be gravel, and there will be single access from 208<sup>th</sup> Ave SE. The estimated total impervious surface area of the facility, including the roof of the digester 19,000 square feet. The site's storm water will be directed towards the fields that surround the site on the north, east, and south. The site will be configured to direct all manure residues into the digester for treatment and disposal.

3. **Description of Buildings to be Affected by the Undertaking:** None
4. **Resources Inventory Statement:** This site is not on the National Register, nor is it a "contributing resource" within a National Register district. No local cultural inventory sites have so far been associated with the site.
5. **Address of the Property:** as 43218 208th Ave SE, Enumclaw, WA 98022. See attached maps for more information.

Rainier Biogas  
NEPA Application

Area Map



4/17/2010 1:51:01 PM

Rainier Biogas  
NEPA Application

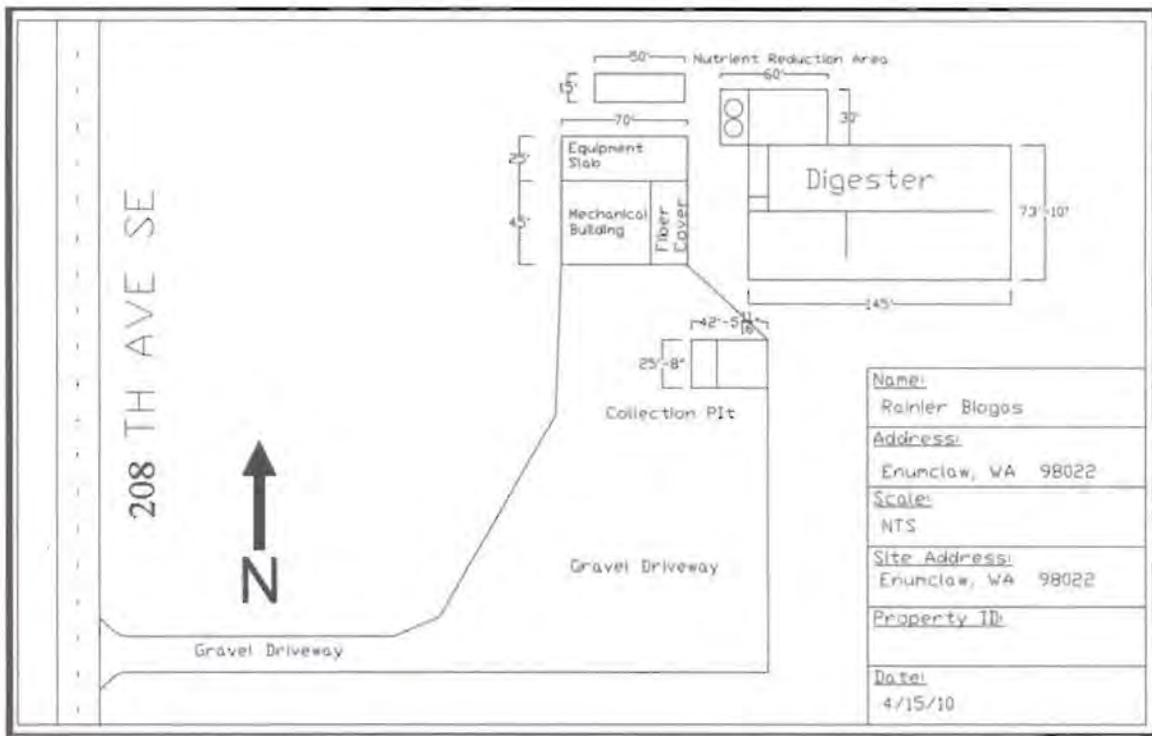
Site Imagery



4/17/2010 1:51:01 PM

Rainier Biogas  
NEPA Application

Site Plan



4/17/2010 1:51:01 PM



STATE OF WASHINGTON

**DEPARTMENT OF ARCHAEOLOGY & HISTORIC PRESERVATION**

1063 S. Capitol Way, Suite 106 • Olympia, Washington 98501  
Mailing address: PO Box 48343 • Olympia, Washington 98504-8343  
(360) 586-3065 • Fax Number (360) 586-3067 • Website: [www.dahp.wa.gov](http://www.dahp.wa.gov)

May 17, 2010

Ms. Sharon Exley  
USDA- Rural Development  
2021 East College Way, Suite 216  
Mount Vernon, Washington 98273-2373

Re: Rainier Biogas Project  
Log No.: 051710-02-USDA-RD

Dear Ms. Exley:

Thank you for contacting our department. We have reviewed the materials for the proposed Rainier Biogas Project at 43218 208<sup>th</sup> Avenue SE, Enumclaw, King County, Washington

We concur with your determination of the Area of Potential Effect (APE) as detailed in your letter and associated figures.

We look forward to receiving the results of your review, consultations with the concerned tribes, and your Determination of Effect.

We would also appreciate receiving any correspondence or comments from concerned tribes or other parties that you receive as you consult under the requirements of 36CFR800.4(a)(4).

These comments are based on the information available at the time of this review and on behalf of the State Historic Preservation Officer in compliance with the Section 106 of the National Historic Preservation Act, as amended, and its implementing regulations 36CFR800.4. Should additional information become available, our assessment may be revised, including information regarding historic properties that have not yet been identified. Thank you for the opportunity to comment and we look forward to receiving the reports on the results of your investigations.

Sincerely,

Robert G. Whitlam, Ph.D.  
State Archaeologist  
(360)586-3080  
email: [rob.whitlam@dahp.wa.gov](mailto:rob.whitlam@dahp.wa.gov)

cc: J. Roderick



**DEPARTMENT OF ARCHAEOLOGY & HISTORIC PRESERVATION**

*Protect the Past. Shape the Future*



## MUCKLESHOOT PRESERVATION PROGRAM

39015 172nd Ave. S.E. • Auburn, WA 98092  
Phone: (253) 939-3311 • FAX: (253) 876-3312



June 2, 2010

Sharon Exley  
USDA Rural Development  
Business Programs Specialist  
2021 E. College Way, Ste. 216  
Mt. Vernon, WA 98273

RE: Rainier Biogas Project, Enumclaw WA

Dear Ms. Exley:

On behalf of the Muckleshoot Indian Tribe's Preservation Program, I have reviewed the information sent on May 13, 2010 regarding the above mentioned project. The project property is in an area the Tribe has flagged as having a high potential for archaeological discovery. There are several recorded archaeological sites on similar landforms within one mile of the project area. Information regarding previous surveys and recorded archaeological sites is available from the Department of Archaeology and Historic Preservation, in Olympia. I urge you to consult with the DAHP regarding all projects subject to NHPA if you have not done so already. If the project area has been previously disturbed, we would appreciate documentation that shows that the disturbance extends to the depth of planned construction excavation. From past experience we have learned that areas that show surface disturbance (for example through plowing) can still contain intact subsurface deposits. If the project area has been previously surveyed for archaeological resources, then the following requests can be disregarded.

Due to the project's ground disturbing activities and the potential for archaeological discovery, the Preservation Program is requesting:

1. An archaeological field study of the project APE by a professional archaeologist.
2. An Action Plan in place in the event that human remains or artifacts are uncovered during construction.
3. A copy of the final technical report for our files.

The Preservation Program does not represent the Wildlife Program and the Fisheries Program which are separate departments under the Muckleshoot Indian Tribe. Please contact these departments separately if needed for their input on this project.

We appreciate the effort to coordinate with the Muckleshoot Tribe prior to site preparation. The destructive nature of construction excavation can often destroy a site and cause delays and unnecessary expense for the contractor. If you have any questions, please contact me at 253-876-3272. Thank you for keeping the Tribe informed.

Sincerely,

Laura Murphy, Tribal Archaeologist

CC: Rob Whitlam, State Archaeologist, DAHP

# CULTURAL RESOURCES REPORT COVER SHEET

Author: Kelly R. Bush and Julia M. Rowland

Title of Report: Archaeological Investigation Report: Ranier Biogas, Enumclaw, King County, Washington

Date of Report: June 14, 2010

County (ies): King Section: 20 Township: 20 N Range: 6E

Quad: Buckley Acres: ~ 4

CD Submitted?  Yes  No PDF of Report?  Historic Property Export Files?

Archaeological Site(s)/Isolate(s) Found or Amended?  Yes  No

TCP(s) found?  Yes  No

Replace a draft?  Yes  No

Satisfy a DAHP Archaeological Excavation Permit requirement?  Yes #  No

DAHP Archaeological Site #:

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
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- Please submit paper copies of reports **unbound**.
- Submission of PDFs is encouraged.
- Please be sure that any PDF submitted to DAHP has its cover sheet, figures, graphics, appendices, attachments, correspondence, etc., compiled into one single PDF file.
- Please check that the PDF displays correctly when opened.

**ARCHAEOLOGICAL INVESTIGATION REPORT: RANIER BIOGAS,  
ENUMCLAW, KING COUNTY, WASHINGTON**

---



Prepared for: Farm Power Northwest

June 14, 2010

Prepared by:



41507 South Skagit Highway Concrete, WA 98237 Tel 360-826-4930 Fax 826-4830 [www.equinoxerci.com](http://www.equinoxerci.com)

## CREDITS AND ACKNOWLEDGMENTS

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REPORT AUTHORS ..... Kelly R. Bush and Julia M. Rowland B.A.  
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GRAPHICS ..... Tamela S. Smart  
CLIENT ..... Farm Power Northwest  
CLIENT CONTACT ..... Daryl Maas, Farm Power Northwest  
  
LEAD AGENCY ..... United States Department of Agriculture and Rural Development  
PROPERTY OWNERS ..... Ritter Dairy LLC  
TRIBAL CONTACTS ..... Laura Murphy, Muckleshoot Indian Tribe  
DAHPC CONTACT ..... Dr. Robert Whitlam

Equinox Research and Consulting International Inc. (ERCI) would like to thank Farm Power Northwest for retaining us for this investigation and for their commitment to the process and archaeological resources.

We extend our thanks to the representatives of the Muckleshoot Indian Tribe for their insights and timely attention to our project.

The opinions and recommendations in this report are those of ERCI alone and do not necessarily reflect those held by any of the organizations or individuals mentioned above. Any errors or omissions are the responsibility of ERCI.

## MANAGEMENT SUMMARY

**Project Area:** The project is located at 43218 208 Avenue Southeast, Enumclaw, King County, Washington  
**Property Owners:** Ritter Dairy LLC  
**Parcel Number:** 2020069001  
**County:** King  
**Acres:** ~4

**Quad map:** Buckley  
**Township** 20N, **Range** 6E, **Section** 20  
**Lat and Long:** 47° 12' 46" N 121° 3' 50" W  
**UTM:** Zone 10 570891E 5229228N  
**Elevation:** ~635-645 feet  
**Water body:** White River and Green River  
**Landform:** Osceola lahar Plateau  
**Lead Agency:** United States Department of Agriculture and Rural Development

**Archaeology sites:** None

Daryl Maas of Farm Power Northwest contacted Kelly R. Bush of ERCI in June of 2010 to conduct an archaeological investigation for the Rainier Biogas project in southeastern King County. Farm Power Northwest is leasing approximately four acres of land from Ritter Dairy LLC at 43218 208 Avenue SE in Enumclaw, King County, Washington to install an anaerobic manure digester and associated buildings and infrastructure. The United States Department of Agriculture (USDA) Rural Development is the lead agency on this project. This report documents the initial identification and evaluation survey for this project in compliance with Section 106.

**No Protected Cultural Resources or Historic Properties were identified** during the archaeological investigation within the project area. 6 machine tests were dug and 9 shovel tests and the project area was subjected to an intensive pedestrian survey.

The management recommendations that we are now providing are based on the testing and monitoring carried out during this initial investigation within the APE. We recommend that:

1. This project proceed as proposed.
2. Due to the proximity of this project to known archaeological sites we recommend that a copy of the unanticipated discoveries protocol (UDP) in Appendix 3 be provided to the contractor and that this UDP remain on site at all times during the implementation of the project.
3. In the event that any ground-disturbing activities in any future development uncover protected cultural materials (e.g., bones, shell, and stone tools), all work in the immediate vicinity should stop, the area should be secured, and any equipment moved to a safe distance away from the location. Then the contractor or landowner should contact the Department of Archaeology and Historic Preservation (Robert Whitlam 360-586-3080), a professional and qualified archaeologist, the Muckleshoot Indian Tribe (Laura Murphy, Tribal Archaeologist 253-876-3272) immediately in order to help assess the situation and determine how to preserve the resource(s).

Compliance with all applicable laws pertaining to archaeological resources is required.

4. In the case of an unanticipated discovery of human remains, the project manager will cease excavation, secure the area, and contact the King County Sheriff's Department (260-296-4155) and the King County Medical Examiner's office (206-731-3232) to determine if the remains are forensic in nature. If the remains are not forensic in nature the Department of Archaeology and Historic Preservation (Guy Tasa, Physical Anthropologist - 360-586-3534) will take the lead on managing the remains.

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## 1.0 INTRODUCTION

Daryl Maas of Farm Power Northwest contacted Kelly R. Bush of ERCI in June of 2010 to conduct an archaeological investigation for the Rainier Biogas project in southeastern King County. Farm Power Northwest is leasing approximately four acres of land from Ritter Dairy LLC at 43218 208 Avenue SE in Enumclaw, King County, Washington (Figures 1, 2 and 3).

Farm Power Northwest will install an anaerobic manure digester, a concrete receiving pit, and a mechanical building with an attached fiber storage area. There will also be one pipe line associated with the Project (Farm Power Northwest 2010).

United States Department of Agriculture (USDA) Rural Development is the lead agency on this project.

This report documents the initial identification and evaluation survey for this project in compliance with Section 106. Section 106 of the National Historic Preservation Act (NHPA) requires agencies to consider the effects of their actions on historic properties and to consult with others in carrying out historic preservation activities. This process is regulated in part by 36 CFR 800 issued by the Advisory Council on Historic Preservation (ACHP).



Figure 1: View West over development area.

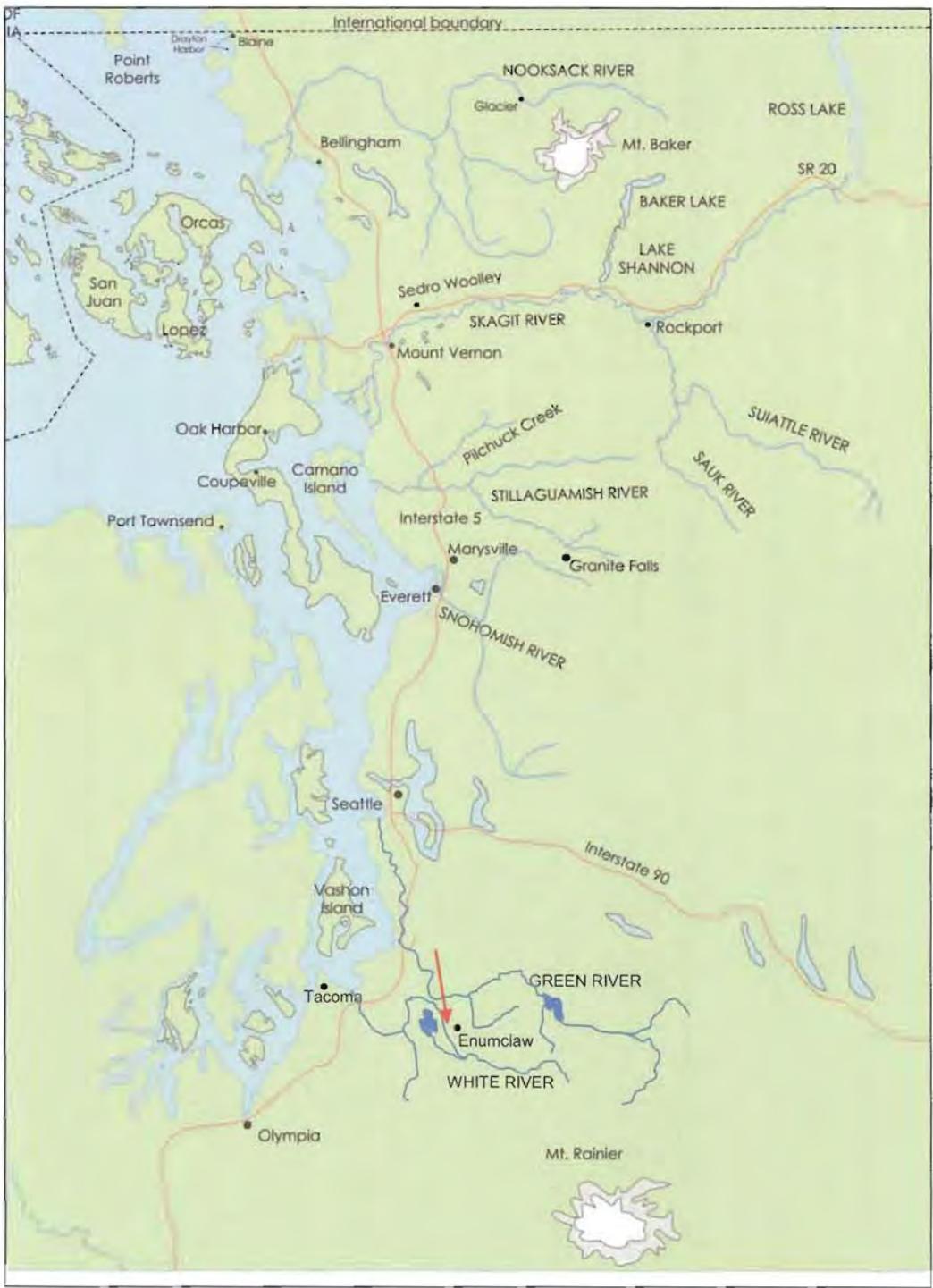


Figure 2: Regional map showing the location of the Project.

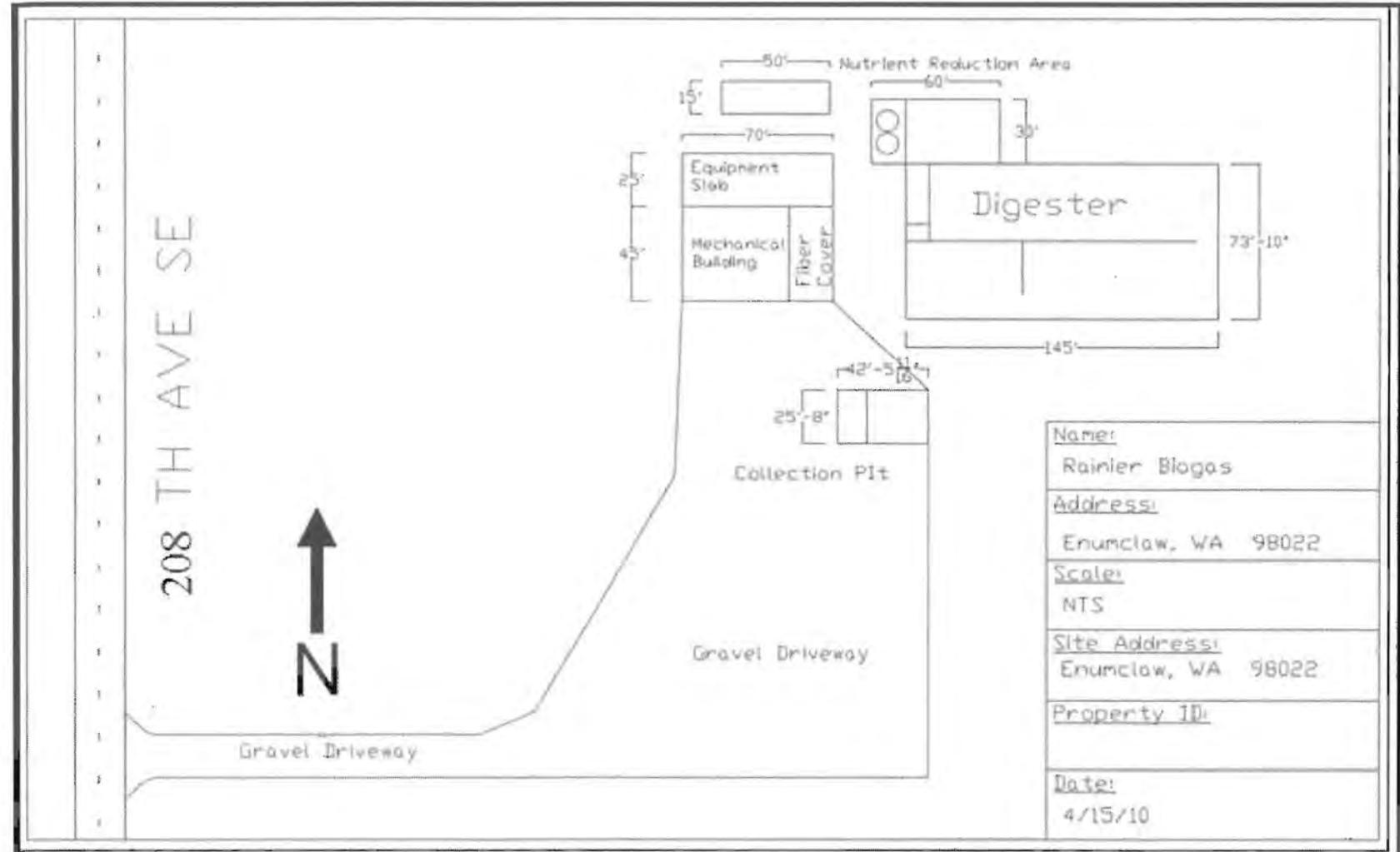


Figure 3: Development map for the Rainier Biogas project.

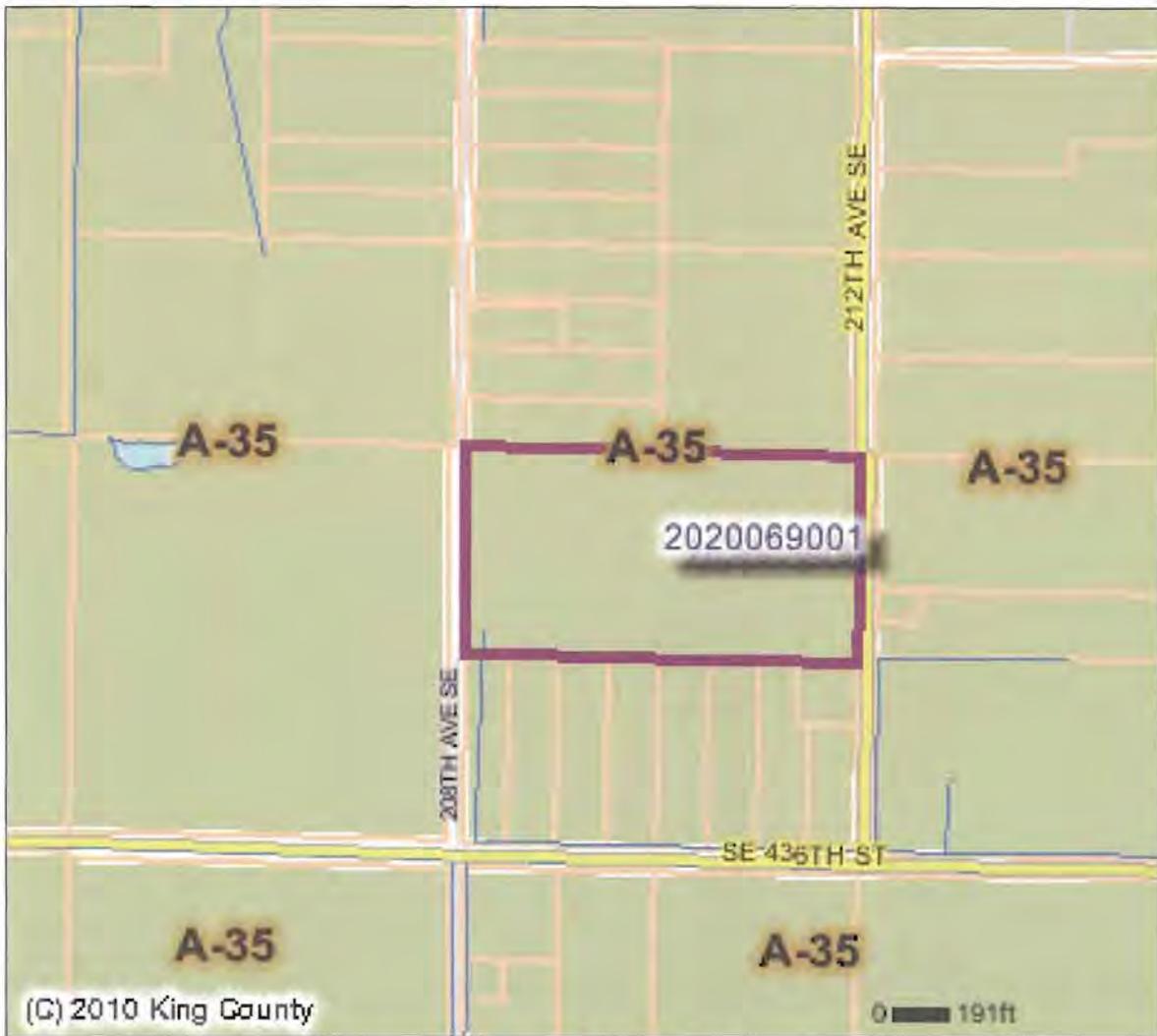


Figure 4: King County plat map showing the parcel the project is located on outlined in purple.

**2.0 TRIBAL CONSULTATION**

The Muckleshoot Indian Tribe considers the project area within their traditional territory. In phone conversations between Laura Murphy, Tribal Archaeologist and Kelly Bush of ERCI it is clear that the tribe considers this area to be culturally significant worthy of close scrutiny for historic properties.

As the lead agency, the United States Department of Agriculture (USDA) Rural Development is responsible for consultation with the affected tribes. They will distribute this report to the Muckleshoot Tribe for review and comment.

**3.0 BACKGROUND**

**3.1 Project Area**

The Area of Potential Effect (APE) for this project is in Enumclaw in southern King County. The proposed development will take place on the approximately four acres of land leased to Farm Power

Northwest by Ritter Dairy LLC. This land and the adjacent lands are zoned agricultural and/or rural. The APE has most recently been used for corn crops and dairy cow forage.

The proposed development includes installation of a 75 by 175 foot manure digester to be buried 8 feet deep and to have earth piled on all sides of it to act as insulation; a 30 by 60 foot nutrient reduction area to be set on one side of the manure digester; a 15 by 50 foot concrete settling pond to be placed on the west side of the nutrient reduction area; a 45 by 45 foot equipment building with attached 45 by 25 foot covered area and adjacent 20 by 75 foot concrete slab to be located next to the manure digester; an in-ground concrete receiving tank and one set of parallel pipelines to run from the manure digester to DeGroot Dairy (Farm Power Northwest 2010).

The APE lies approximately four miles east of Enumclaw's city center in southern King County, approximately three and one half miles west of Lake Tapps, Approximately two miles north of White River, and approximately five miles south of Green River.

Previous disturbances in and around the project area include:

- Clearing and logging
- Agricultural activities and residential development
- Construction and maintenance of water lines and meter box services
- Construction and maintenance of 208 Avenue SE
- Filling, grading and plowing
- Installation and maintenance of utility poles and buried infrastructure,
- Construction and maintenance of unimproved access roads,
- Installation of fencing, gates, and agricultural landscaping
- Installation of culverts and drainage ditches
- Construction and maintenance of driveways



Figure 5: Aerial photo showing the APE outlined in red.

### ***3.2 Environmental Setting***

It is outside the scope of this project to describe in detail the landform processes which sculpted the current Puget Sound environment; however, detailed descriptions of landform origins for this region and sea-level stabilization can be found in Armstrong 1977; Bierdman 1967; Burns 1985; Clague 1980; Downing 1983; Easterbrook 1963, 1968; Fladmark 1975; Goudie 1983; Hilbert and Miller 2001; Pielou 1991; Prater 1991; Thorson 1980, 1989; Whitlock 1992.

The project area is located in the southern portion of the northern half of the Puget Trough Province, characterized by glacial geology and topography (Franklin and Dyrness 19883: 16). As the most recent glacial epoch retreated, glacial till and outwash were deposited with soils formed in glacial materials under the influence of coniferous forest vegetation. Glacial retreat also caused isostatic rebound as the weight of glacial ice on the surface subsided; isostatic rebound reached heights of 140 meters. Modern sea level and shoreline configurations did not stabilize until about 5,000 years ago (Thorson 1980).

Environmental factors play an important role in the location and preservation of archaeological sites. Soils are of particular interest to cultural resource managers because archaeological sites generally occur in soil matrices and soils can be used for reconstructing past landscapes and landscape evolution, for use in estimating the age of surfaces and depositional episodes, and for providing physical and chemical indicators of human occupation.

### 3.2.1 Geomorphology and Soils

During the Pleistocene era a massive Cordilleran Ice Sheet covered much of the Puget Sound lowlands. About 13,000 years ago the glacier began to retreat to its various points of origin. The valleys created by the glacial activity filled with water. The White River Valley was until approximately 5,700 years ago a marine fjord filled by the waters of the Puget Sound, refer to as the Duwamish Embayment (Forsman and Lewarch 2001).

Over time sediments filled the Duwamish Embayment. The Osceola lahar originating at Mount Rainier was a major contributor to this sediment (Forsman and Lewarch 2001). Mount Rainier, located approximately 25 miles southwest of the APE, is the highest and third largest volcano in the Cascade Range (Wood and Kienle 1990). Over 60 post-glacial/Holocene lahars or mudflows originating from Mount Rainier have been recorded. The largest of these lahars is the Osceola Mudflow (Hoblitt et al 1998).

This cohesive lahar, which occurred about 5600 years ago, was at least 10 times larger than any other know lahar from Mount Rainier. It was the product of a large debris avalanche composed mostly of hydrothermally-altered material, and may have been triggered as magma forced its way into the volcano. Osceola deposits cover an area of about 550 kilometers (212 square miles) in the Puget Sound lowland, extending at least as far as the Seattle suburb of Kent, and to Commencement Bay, now the site of Port of Tacoma. The communities of Orting, Buckley, Sumner, Puyallup, Enumclaw, and Auburn are also wholly or partly located on top of deposits of the Osceola Mudflow and, in some cases, of more recent debris flows as well (Hoblitt et al 1998).

The Osceola lahar covered most of the White River valley in more than 400 feet of mud and debris. The site on which the town of Enumclaw now stands was under around 70 feet of mud and debris (Crandell and Mullineaux 1967). In the area of our current APE is a 30 by 40 foot concentration of reddish-brown breccia, rock composed of broken fragments of material. The breccia is deposited from Mount Rainier mudflows (Crandell 1971).

Soil data for this project was obtained from the Web Soil Survey (WSS), which provides soil data and information produced by the National Cooperative Soil Survey. It is operated by the USDA Natural Resources Conservation Service (NRCS) and provides access to the largest natural resource information system in the world. The site is updated and maintained online as the single authoritative source of soil survey information. According to the WSS, the Project Area has one major soil type: Alderwood gravelly sandy loam and Buckley silt loam

Alderwood gravelly sandy loam is found on 0 to 6 percent slopes at elevations of 50 to 800 feet. It is composed of 75 percent Alderwood and similar soils, 10 percent Buckley, 4 percent Norma, 4 percent Bellingham, 4 percent Tukwila and 4 percent Shalcar. Alderwood, the major component of this soil, is found on moraines and till plains. It has a parent material of basal till with some volcanic ash and is moderately well drained. The depth to a restrictive feature is 24 to 40 inches and the water table is found at about 18 to 37 inches. A typical soil profile is 0 to 12 inches gravelly sandy loam, 12 to 27 inches very gravelly sandy loam and 27 to 60 inches very gravelly sandy loam.

Buckley silt loam is found on 0 to 3 percent slopes at elevations of 500 to 700 feet. It is composed of 90 percent Buckley and similar soils, 4 percent Alderwood, 3 percent Seattle and 3 percent Tukwila. Buckley, the major component of this soil is found on mudflows and has a parent material of mudflow deposits. Buckley is poorly drained. The depth to a restrictive feature is 20 to 40 inches and

the water table is found at about 0 to 12 inches. A typical soil profile is 0 to 10 inches silt loam, 10 to 20 inches very gravelly loam and 20 to 60 inches gravelly sandy clay loam.

For the description of sediments encountered during our testing see Appendix 1.

### 3.2.2 Climate

The Project Area is located within the Puget Sound area subset of the *Tsuga heterophylla* (western hemlock) environmental zone (Franklin and Dyrness 1988). The climate is significantly tempered by the proximal Pacific Ocean and Puget Sound. Summers are fairly warm and hot days are rare; winters are cool but snow and freezing temperatures are uncommon except at higher elevations. This wet, mild, maritime climate is responsible for the unique nature and wide distribution of the *Tsuga heterophylla* zone, the most extensive vegetation zone in western Washington, Oregon and southwestern British Columbia.

### 3.2.3 Western Hemlock Zone- *Tsuga heterophylla*

The Western Hemlock Zone (WHZ) extends from the bottom of the Skagit River Valley to approximately 762 meters asl. While there are considerable variations within the zone, generally the WHZ has a wet and mild maritime climate (Franklin & Dyrness 1988: 71). Most of the precipitation falls in the form of rain and occurs mainly in the winter months. Soils are typically of medium texture, ranging from sandy loam to clay loam in some areas, with well developed soils limited to moderate slopes; on steeper slopes poorly developed, shallow soils are often encountered.

Major tree species within the Western Hemlock Zone include:

- *Pseudotsuga menziesii* (Douglas fir)
- *Tsuga heterophylla* (western hemlock)
- *Thuja plicata* (western red cedar)
- *Abies grandis* (grand fir)
- *Picea sitchensis* [near the coast] (sitka spruce)
- *Pinus monticola* [occasionally] (western white pine)

The Puget Sound area varies slightly from the rest of the (WHZ), which is largely a result of differing climate and soil types. The area is greatly impacted by the rain shadow of the Olympic Mountains. The average precipitation within the Puget Lowlands ranges from 800 to 900 millimeters. Also significant are the soil types present in the region, which largely developed from glacial drift and outwash. These soils are typically coarse textured, nutrient poor and excessively drained (Franklin & Dyrness 1988: 88).

Franklin & Dyrness (1988) list a number of notable differences in the plant communities as a result of these factors. They include:

- 1) Stands with *Pinus contorta* (shore pine), *Pinus monticola*, and *Pinus ponderosa* (ponderosa pine) as their major components
- 2) *Quercus garryana* (Garry oak) groves, which are commonly invaded by *Pseudotsuga menziesii*
- 3) Poorly drained areas with swamp or bog plant communities
- 4) Extensive prairies

5) The presence of species not commonly found in the WHZ such as *Juniperus scopulorum* (Rocky Mountain juniper), *Populus tremuloide* (trembling aspen), *Pinus ponderosa* and *Betula papyrifera* (paper birch)

Lahars from volcanoes in the Cascade Mountains that cover areas in mud and debris annihilating the vegetation are fairly common. The re-growth of vegetation in these areas post mudflow is an interesting phenomenon. Mudflow from Mount Rainer in the last 100 years has allowed for study of vegetation succession (Franklin & Dyrness 1988).

Some of the first trees to reestablish in mudflow areas included Black Cottonwood, various trees from the genus *Salix* such as Willow, and Red Alder which is of particular note for its nitrogen-fixing properties. An important factor in the nature of the vegetation succession is whether or not dead trees are left standing after the mudflow. Also the nature of the soils that were presents pre mudflow, the sediments the mudflow is made up of and the age of surrounding vegetation can have an effect (Franklin & Dyrness 1988).

### 3.3 Cultural Setting

It is beyond the scope of this study to provide a detailed description of traditional Coast Salish land use and lifeways. For in-depth descriptions of traditional Coast Salish culture readers should consider the following references: Adamson 1969; Allen 1976; Ames and Maschner 1999; Amoss 1977a, 1977b, 1978, 1981; Barnett 1938, 1955; Belcher 1986; Bennett 1972; Bierwert 1993, 1999; Borden 1950, 1951, 1975; Boxberger 1986, 1996; Boyd 1999; Bryan 1955; Carlson 1990, 1996; Collins 1952, 1974a, 1974b, 1974c; Curtis 1913; Dewhirst 1976; Duncan 1977; Elmendorf 1971, 1974, 1993; Guilmet *et al.* 1991; Gunther 1928, 1945; Haeberlin and Gunther 1930; Harmon 1998; Harris 1994; Howay 1918; Jermann 1977; Kew 1972, 1990; Kozloff 1973; Lane and Lane 1977; Mansfield 1993; Mattson 1971, 1985; B. Miller 1993, 1997, 1998, 2001; Miller and Boxberger 1994; J. Miller 1988; Mitchell 1971; Mooney 1976; Onat 1986; Ruby and Brown 1986; H. Smith 1900, 1907; Smith and Fowkes 1901; M. Smith 1941, 1950, 1956; Spier 1935, 1936; Stein 1984; Stewart 1977; Strickland 1984, 1990; Suttles 1958, 1960, 1987, 1990; Taylor n.d.; Thompson 1978; Twedell 1950; and Whitlam 1980.

During the early Holocene, the peoples within the project area would likely have been highly mobile, generalized hunters and gatherers, using their large animal hunting skills to provide food for the small groups of people traveling together (Schalk 1988). During the mid Holocene, a warmer and moister climatic trend continued to help form the wet western Washington landscape with the larger rivers and the coastlines looking much like they do today by 5,500 to 3,500 years ago. By this time, people using the project area would have been a highly efficient semi-sedentary people, gathering the plants and hunting small as well as larger land mammals that would have been prolific. Riverine resources would begin to expand in quantity and diversity as the shorelines and landscapes became more stable.

Daily life in much of the Pacific Northwest is described ethnographically as following a seasonal round. In winter, people congregated in longhouses (Herbel and Schalk 2002: 3.3) that were built of cedar planks with the ends facing water (Marr *et al.* 1980: 1). Each longhouse contained extended family groups, generally consisting of between five and twenty families, and there were several longhouses per village (Marr *et al.* 1980: 5).

Villages were located half a mile to several miles apart, usually near good fishing areas. Downstream fishing villages tended to be larger because upriver resources included much more hunting and gathering and people were not so reliant on fish, especially salmon.

In addition to fish, other staple foods included camas, wapato, and other roots vegetables, berries, and deer and elk, particularly in the upper reaches of the river (Irwin 1979); the potato was introduced by HBC in the 1820s (Unknown 1983: 27). During summers, families regularly assembled at traditional berry grounds (Irwin 1979: 8).

It is important to note that there is evidence for human occupation and use in this region for at least 10,000 years. Although some archaeologists believe that North America was populated by migrations of people from present-day Asia crossing a bridge of land in the Bering Strait of Alaska. Native peoples of the area do not believe this, as their origin narratives take place here in the Northwest (Stein 2000).

The Muckleshoot Indian Tribe today is made up of members who can determine their descent through many groups including: the Skopamish, the Smulkamish, the Stkamish, the Tkwakwamish, and the Yilalkoamish. These tribes lived in and around the White River and the Green River drainage. The Smulkamish tribe lived near the present day location of Enumclaw. The White River and Green River drainages were host to several native villages including Cublokum, which was located near present day Enumclaw (Stein 2001).

The tribes of the White River and Green River Valleys frequently journeyed over the Cascades to trade with Eastern Washington tribes. Their trails went over the mountains through passes like the Naches Pass which would later be used by settlers and in time be added to the state highway system (Scott and Wright 2008).

As with many tribal definitions in the Pacific Northwest, by the time the treaties were being signed in the mid nineteenth century, drastic population destabilization had blurred the once clear territorial boundaries that existed between the member groups.

European disease reduced the populations of native peoples to below critical thresholds for maintaining the social and economic ties that had been in existence for millennia. Some bands and tribes were completely decimated. The rules for marriage, power structure, trade, and boundaries were then put into flux, and the people who carried the information required to rebuild these systems were gone. It is not uncommon to hear of movements of peoples beginning after the initial waves of disease starting as early as the 1700s. Population destabilization due to disease is probably the greatest modifier of social and cultural relationships and definitions for the resident groups in the Pacific Northwest. It would be the equivalent of our society today loosing all infrastructure related to information and personal responsible for managing it in the matter of one or two generations.

The assumption is that population densities would have continued to increase through time, with checks and balances influenced by environmental factors that would affect resource availability. Population collapse launched by the disease introduced by the European Explorers was irreparable by the 1700s (Taylor 1953: 5). By the time traders arrived and settlements were established in the 1800s, land use patterns of the first inhabitants had radically changed throughout the Northwest.

Northwest tribes and tribal entities have displayed great flexibility in order to maintain and recreate themselves through fluctuating trends in the American political and economic theatre. The Stevens' Treaties (1850s), Indian Reorganization Act (1930s), Termination policies (1950s), and the complicating measures in between, have kept Indians and non-Indians working hard to define who these native peoples are and what the relationship between 'their' governments are. It is not surprising that "many enduring Indian organizations originated during these years and these policies account for the tribal affiliations and legal identities of most Indians today" (Harmon 1998:190).

Collins (1946, 1950, 1974a), Harmon (1998), and Robbins (1986) offer excellent analyses of the range of challenges faced by 20<sup>th</sup> century tribes and tribal entities.

The treaty period and the relocation of tribes from their traditional territory to reservation lands in the mid nineteenth century was the second external series of events to drastically change the demographics of the native people in the northwest. The effect of this series of events cannot be underestimated when considering how people had lived for thousands of years compared to how they appeared at the time of most of the ethnographic accounts in Western Washington.

The Muckleshoot Tribe is not mentioned at the signing of the Medicine Creek Treaty in 1854 because the tribe did not yet exist under that name. The name Muckleshoot was originally a place name and did not refer to a particular tribe (Scott and Wright 2008). In 1874 the Muckleshoot Reservation was established between the White River and the Green River for the tribes of these drainages (Stein 2001). Today the Muckleshoot Indian Tribe is a sovereign nation.

The Muckleshoots ratified their constitution on May 13, 1936, and their charter on October 21. The Governing body is the nine-member Muckleshoot Indian Tribal Council, to which three new members are elected annually. The tribe is under the jurisdiction of the Western Washington Indian Agency, which provides assistance with economic development (Stein 2001).

T.T. Waterman worked as an ethnographer in the early 1900s. He worked with native elders to record with careful detail the place names, history, genealogy and culture of the Puget Sound and the Straits of Juan de Fuca (Hilbert et al 2001: iv). The place names that Waterman recorded give clues to how the native peoples of Puget Sound felt about their land (Hilbert et al 2001:i). The table and map below provide the place names within 3 miles of the APE.

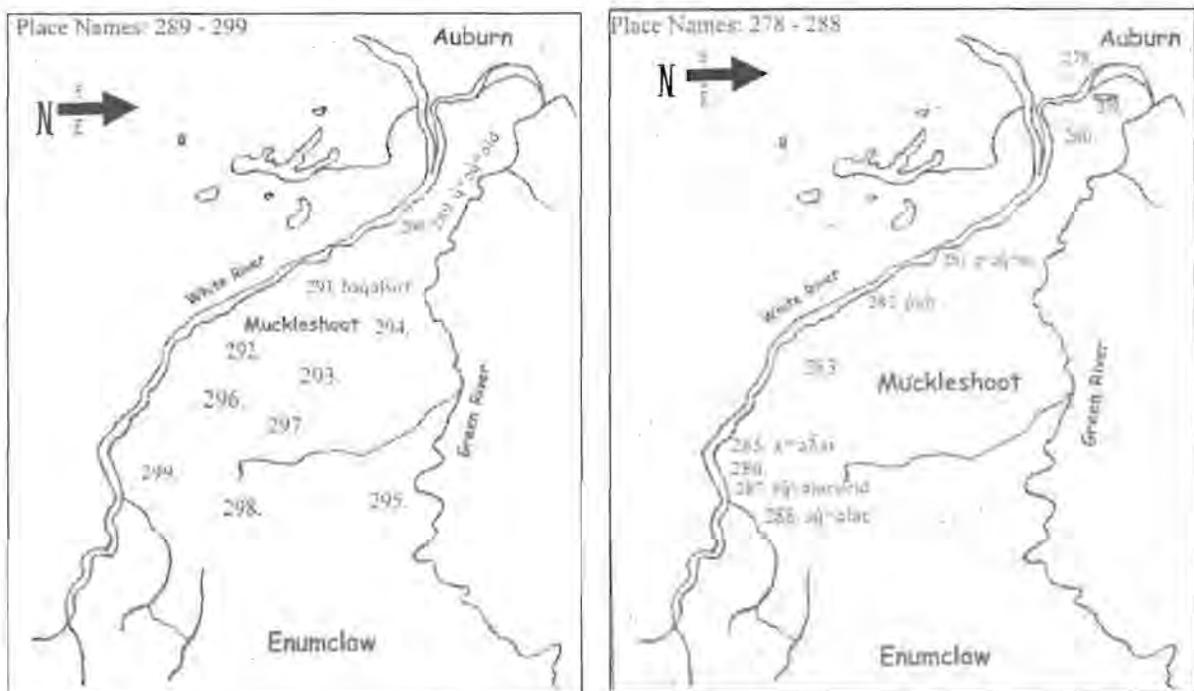


Figure 6: Maps of nearby sites recorded in Waterman's original manuscripts edited by Hilbert et al 2001.

Table 1: Place names of nearby sites recorded in T.T. Waterman's original manuscripts edited by Hilbert et al 2001.

<b>Waterman Name</b>	<b>Map Number (figure 8)</b>	<b>Translation</b>	<b>Location</b>
TL <sup>3</sup> kEwa'dEb	283	None	The mouth of a creek that drains from White River
hwE'tL <sup>3</sup> si	285	To break off	A place where the White River sweeps along the foot of a high bluff, one mile from Buckley, WA
Sqwobal	286	High place	The White River ford leading to Collin's Prairie
sqw <sup>3</sup> alE'ttutsid	287	None	The mouth of Boise Creek, off of White River
sqw <sup>3</sup> alElets	288	Huckleberry bush	An old village site at Boise Creek
Yetudi'	294	None	A creek running into Green River
Telda'btid	292	None	A place where Stuck Jack had his cabin
Kogwa'sid	293	Ridge fence	Site of Snohomish Joe's place
Wiya'los	296	None	A creek on Fred Ross's place
Ko'bcL	297	None	Porter's Prairie
TliLda'llts	299	None	The site of the community of Osceola, approximately 2 miles southeast of the APE
Dowokub	298	None	The prairie which flows from Nuwaukum Creek
SkaLd	295	Lip	A small lake with Beavers in it

In the early days of homesteading in the White River Valley settlers relied on community activities to stave off isolation. Church meetings, dances, quilting bees and picnics were a common occurrence. Transportation between communities was difficult. Settlers utilized stream beds and native trails for travel (Scott and Wright 2008).

In 1885 the Northern Pacific Railroad extended its transcontinental mainline through the land that would become Enumclaw. That year Frank and Mary Stevenson platted the town and built a hotel. A saloon and general store were also erected in the new town (Scott and Wright 2008). Enumclaw developed as an agricultural area. Farms in the 1880s and 1890s primarily grew hops, an ingredient in malt beverages. In the late 1890s, after an infestation of hop lice, many farms became dairies. Danish Immigrants to Enumclaw established several agricultural cooperatives including Cooperative Creamery, known today as Darigold Farms. Dairy farming is still the major industry in Enumclaw. In 1897 several Swedish immigrants purchased the White River Lumber and Shingle Company. The White River Lumber and Shingle Company as well as the various agricultural cooperatives have been called the cornerstone of Enumclaw's economic life (Andrews 1998).

Before the arrival of the settlers the area around Enumclaw was dense old growth forest. Settlers used the trees on their land to build hand hewn homes and barns. The remaining trees were cleared away to create open fields for farming (Scott and Wright 2008).

A post office was established in Enumclaw in 1886 (Lange 1998). By 1900 county roads linked Enumclaw to the community of Thomas, located south of Auburn. At this time Enumclaw was home to 483 people according to the US census (Andrews 1998). The Enumclaw Telephone Company began operation in 1902 (Wilma 1999). In 1910 a grammar/high school was established in Enumclaw. In 1913 Enumclaw was incorporated, the town's coal gas street lamps were replaced with electric ones and the town got a good public water source (Andrews 1998).

The early 1890s saw an influx of Japanese immigrants to Washington State. Many of these immigrants had backgrounds in farming and found their way to the White River Valley from Seattle. The Japanese immigrants mostly lived in camps and earned a dollar a day working for farmers. During the winter they worked clearing the land. In 1910 432 people of Japanese heritage were recorded as residing in the White River Valley (Flewelling 1997).



Figure 7: Enumclaw Drug Store ca. 1900, [www.historylink.com](http://www.historylink.com)



Figure 8: Enumclaw ca. 1940, [www.historylink.com](http://www.historylink.com)

From 1890 to 1920 Washington State saw the rise of the women's club. These clubs were formed around ideas like self improvement, social welfare and civil reform. The Danish Sisterhood of Enumclaw was one such club. This group of women established a lending library in Enumclaw and later played a key role in establishing a public library in the town (Blair 2009).

Naches Pass Highway opened in 1929 and Enumclaw began marketing itself as the gateway to Naches Pass and to Mount Rainier. In 1950 the White River Lumber Company merged with the Weyerhaeuser Corporation (Andrews 1998).

Today Enumclaw's population is around 10,000 people. Commuters to adjacent larger cities and retired peoples live side by side with dairy farms operated by fourth generation farmers (Andrews 1998).

### ***3.4 Previous Archaeology***

The earliest archaeological studies of the region are from the now famous Harlan I. Smith 1901 and 1907. For more detail about the archaeology of this area see Bryan 1955, 1963; Carlson 1990; Mattson 1985; Onat 1987; Stein 1984, 2000.

Archaeology in the Pacific Northwest is full of interesting stories and complex facets and components. Preservation of sites, history of research, modern demographics, and the taphonomic processes of landform creation and movement in the study area provide the plot lines to this fascinating story. The relationships between landscape and land use are well established. Some of these patterns can be seen in land use patterns in today's populations. The clustering associated with modern groups was common on a different scale in the past. Within two miles of the Project Area, 12 sites have been recorded by DAHP and are provided in Table 1.

Riverine shoreline modification and substantial alluvial sediments deposits have affected the recording of archaeology sites in the White River Valley. Leonard Forsman and Dennis Lewarch state that, "We would expect hunting, fishing, and plant collecting campsites on old river levees adjacent to abandoned river channels. The abandoned channels were flooded in the winter and spring and so were abundant with fish, mammals, plants, and waterfowl that served as important food sources. Native peoples often selected sites where several incoming streams or confluences occurred for villages or fishing camps".

**45KI00702**, located less than one mile west/southwest of the APE, is a pre contact camp and pre contact lithic material site. The site was recorded in 2004 by Charles T Luttrell and Ryan Ives. The site was first identified by Archaeology and Human Services (AHS). AHS was conducting subsurface testing for the construction of SR164. The lithics identified at the site covered an area of 200 meter E/W and 100 meters N/S. Most of the lithics were within the first 30 cm of sediments and consisted of stone tools and debitage. Red jasper was the primary material type. Based on the type of tools found at this site and that the artifacts were in sediments more recent than the Osceola lahar, Luttrell and Ives believed this site was occupied from 5,600 to 3,500 B.P. Investigations in 2004 were limited to the road right of way, fifty feet from the center of the road. Luttrell and Ives believed that the site most likely extended beyond these parameters (Luttrell and Ives 2004).

Table 2: Archaeological sites located within two miles of the APE.

Smithsonian Number	Distance from APE	Comments	Date Recorded	Listing Status	Site Type Name
KI00702	~ .9 mile west/southwest	Pre contact camp, lithic scatter, 200 x 100m, 5600- 3500 BP	8/27/2004	Determined Not Eligible National Register	Pre Contact Camp, Pre Contact Lithic Material
KI00021	~ 1 mile northwest	Charcoal	5/1/1972	Inventory, unevaluated	Pre Contact Camp, Pre Contact Lithic Material
KI00067	~ 1.2 miles south	No comments available	4/27/1981	Inventory, unevaluated	Pre Contact Lithic Material
KI00005	~ 1.5 miles southeast	Many lithic items	5/1/1972	Inventory, unevaluated	Pre Contact Lithic Material
KI00068	~ 1.5 miles south	No comments available	4/27/1981	Inventory, unevaluated	Pre Contact Lithic Material
KI00689	~ 1.5 miles south	Osceola community dump site, historic refuse dump, 20 x 14m, 1900- 1960	6/13/2003	Determined Not Eligible National Register	Historic Refuse Scatter/Dump
KI00004	~ 1.7 miles southeast	Adze blades, pestles, projectile points	2/13/1962	Inventory, unevaluated	Pre Contact Lithic Material
KI00064	~ 1.8 miles east	Pre contact lithic material- lithic scatter and burned mammal bone, 300 x 478 m	4/27/1981	Inventory, unevaluated	Pre Contact Feature, Pre Contact Lithic Material
KI00013	~ 2 miles east	Lithics collected by property owner	3/20/1965	Inventory, unevaluated	Pre Contact Lithic Material
KI00066	~ 2.5 miles southeast	No comments available	4/27/1981	Inventory, unevaluated	Pre Contact Lithic Material
PI00423	~ 2.5 miles south/southeast	Lithic scatter	7/6/1995	Inventory, unevaluated	Pre Contact Lithic Material

Smithsonian Number	Distance from APE	Comments	Date Recorded	Listing Status	Site Type Name
KI00938	~ 2.5 miles west/northwest	Pussyfoot creek site, 175 x 190m, pre-contact lithic material, biface, core, graver, projectile point, scraper, uniface, hammerstone	2/17/2009	Inventory, unevaluated	Pre Contact Lithic Material

## 4.0 METHODS

### 4.1 Archival Research

- 1) Review of site forms and previous reports on file at the Department of Archaeology and Historic Preservation in Olympia, Washington.
- 2) Review of published and unpublished information on the prehistory or traditional native use of the area.
- 3) Review of archaeological site location maps for King County.
- 4) Review of published and unpublished information on the historic use of the area.

### 4.2 Field Methods

The fieldwork for this project was conducted on Tuesday June 8, 2010 by Kelly R. Bush, Tamela S. Smart and Alyson M. Rollins.

Testing of the APE included an intensive pedestrian survey, shovel and machine testing inside and adjacent to the development area.

Although we normally screen all material in shovel tests the ground was so wet that screening would not have increased visibility so all shovel test matrices were troweled through carefully. Machine test matrices were not screened but were examined by hand and on occasion troweled through.

All test locations were photo documented and mapped and the sediments were all described. No samples were removed from the site. Matrix descriptions are recorded in Appendix 1. All photos are logged in Appendix 2. All photos and field notes are stored at the offices of ERCI.

## 5.0 RESULTS AND RECOMMENDATIONS

### 5.1 Results

**No Protected Cultural Resources or Historic Properties were identified** during the archaeological investigation within the project area. 6 machine tests were dug and 9 shovel tests and the development area was subjected to an intensive pedestrian survey (Figures 9 – 15).

Although the fields were very wet with standing water, the rocks on the surface were cleaned from recent rains and very visible. Some areas of the fields had standing water too deep to survey through but the development area, although wet, was walked over completely in a zig zag pattern to increase the probability of artifact recognition. There were no other indicators of cultural activity such as concentrations of carbon, features, surface alignments or modifications other than the rows of last year's corn.

We located the shovel test holes just outside the development zone as it was a slightly elevated landform and seemed to have the highest probability of encountering cultural material. The machine tests were located in the area of deepest development and were dug until the walls began to collapse from water seepage, which varied depending on location. Some trash was identified on the surface such as pieces of black plastic, bailing twine, and some terra cotta drain tile. The most significant feature of this field was the high percentage of cobbles and pebbles on the surface, which the farmer supported by saying that of all the fields he works in this valley this is his rockiest.



Figure 9: View NW over location of machine test 1.

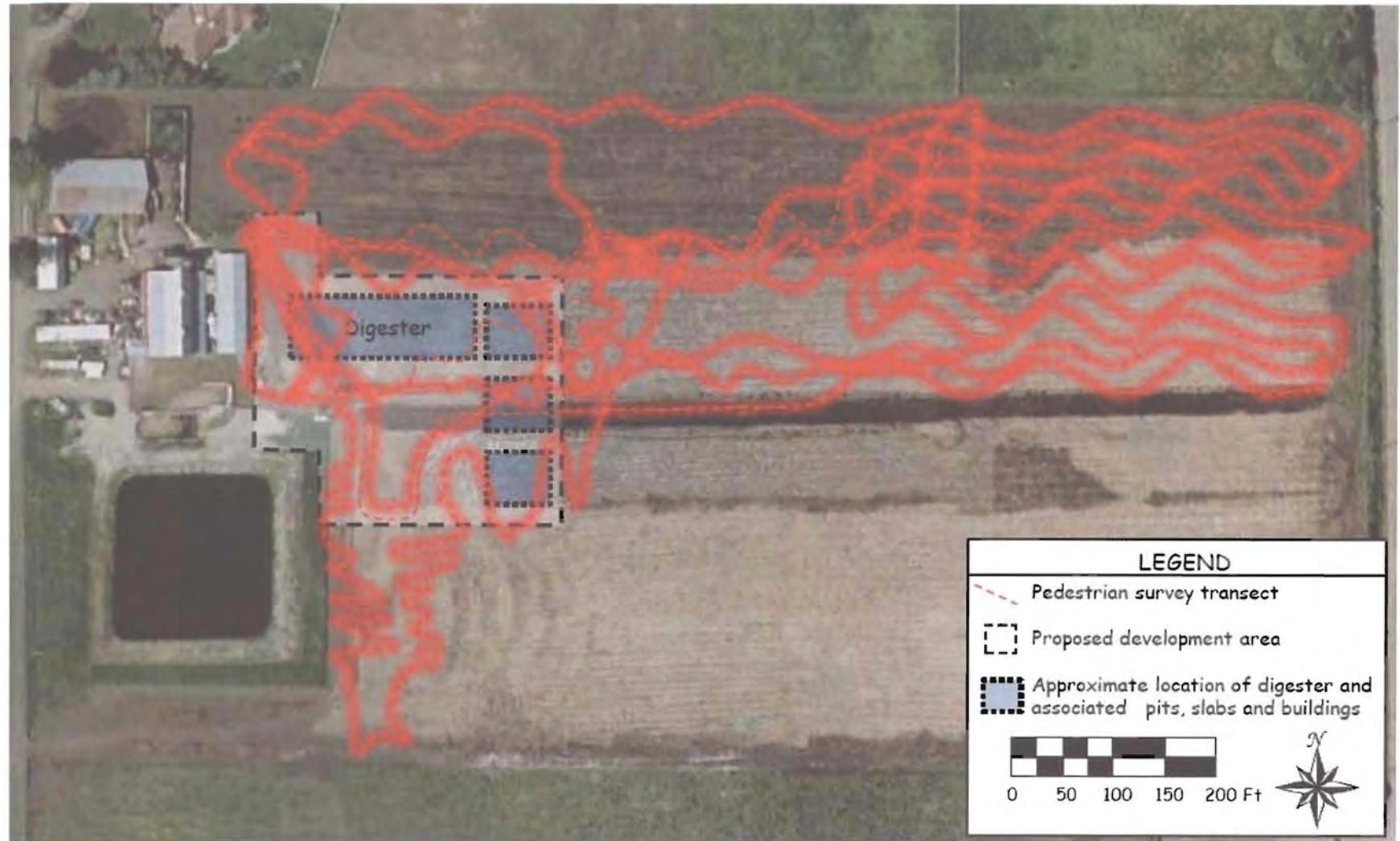


Figure 10: Sketch map of pedestrian transects.

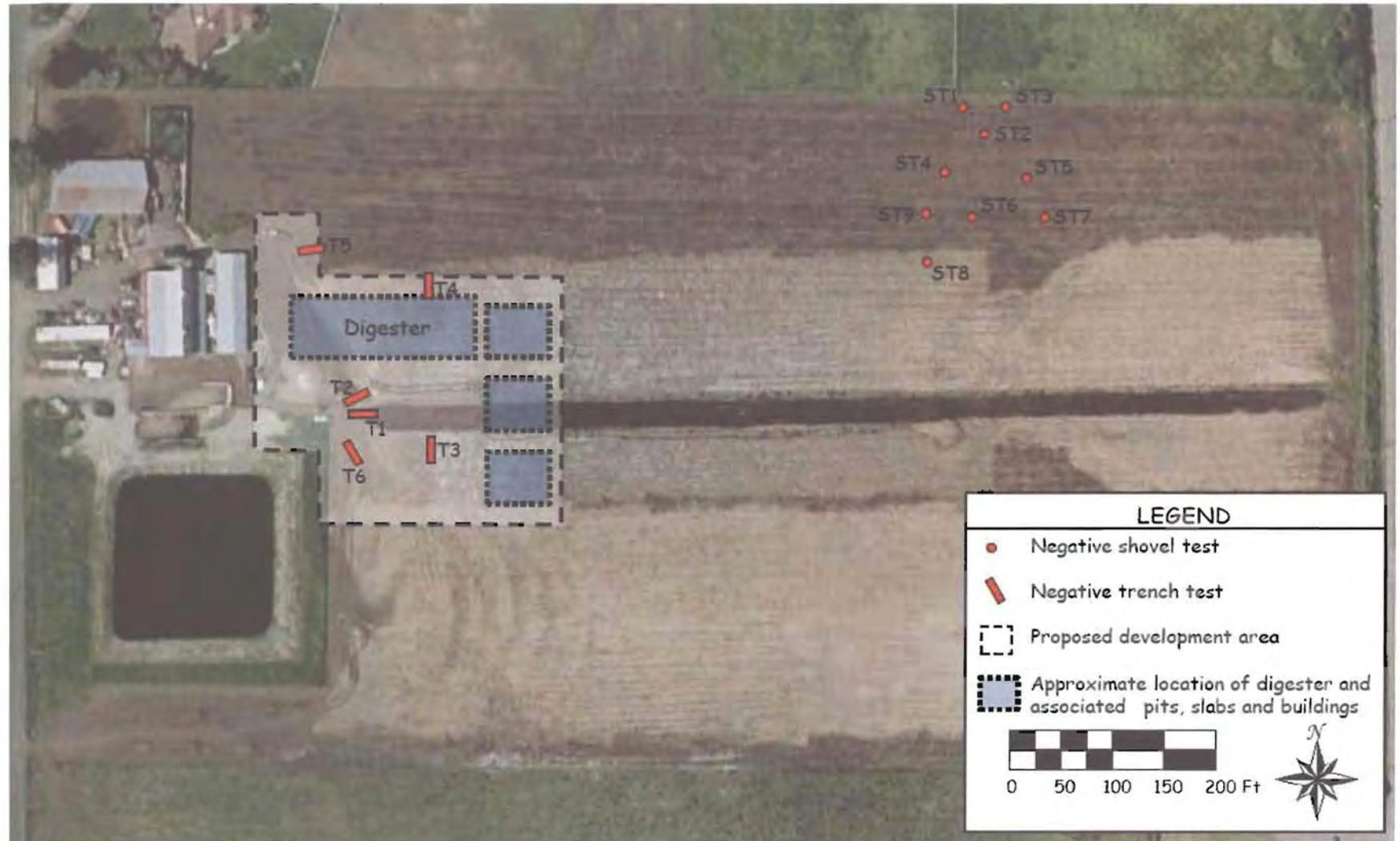


Figure 11: Sketch map with machine and shovel testing locations.



Figure 12: View southwest profile of machine test 3.



Figure 13: View northwest across machine testing area.



Figure 14: Shovel test 6.



Figure 15: Shovel test 7.

## ***5.2 Recommendations***

The management recommendations that we are now providing are based on the testing and monitoring carried out during this initial investigation within the APE. We recommend that:

1. This project proceed as proposed.
2. Due to the proximity of this project to known archaeological sites we recommend that a copy of the unanticipated discoveries protocol (UDP) in Appendix 3 be provided to the contractor and that this UDP remain on site at all times during the implementation of the project.
3. In the event that any ground-disturbing activities in any future development uncover protected cultural materials (e.g., bones, shell, and stone tools), all work in the immediate vicinity should stop, the area should be secured, and any equipment moved to a safe distance away from the location. Then the contractor or landowner should contact the Department of Archaeology and Historic Preservation (Robert Whitlam 360-586-3080), a professional and qualified archaeologist, the Muckleshoot Indian Tribe (Laura Murphy, Tribal Archaeologist 253-876-3272) immediately in order to help assess the situation and determine how to preserve the resource(s). Compliance with all applicable laws pertaining to archaeological resources is required.
4. In the case of an unanticipated discovery of human remains, the project manager will cease excavation, secure the area, and contact the King County Sheriff's Department (260-296-4155) and the King County Medical Examiner's office (206-731-3232) to determine if the remains are forensic in nature. If the remains are not forensic in nature the Department of Archaeology and Historic Preservation (Guy Tasa, Physical Anthropologist - 360-586-3534) will take the lead on managing the remains.

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## 7.0 APPENDICES

### *Appendix 1: Matrix Descriptions from Subsurface Testing*

**Matrix 1:** Dark brown silt with 10-20 % gravels and pebbles, 10-20% cobbles, high moisture content, loose to moderate compaction, plow/disc zone, disturbed.

**Matrix 2:** Yellowish brown (with a orange or pink tint) sandy silt mottled with orange with 10-20% gravels and pebbles, 30-40% cobbles, moderate to dense compaction, mudflow deposits.

**Matrix 3:** Gray sandy silt mottled with orange with 10-20% gravels and pebbles, 30-40 cobbles, moderate to dense compaction, mudflow deposits (same as matrix 2 but gray in color).

#### Shovel Test Descriptions

Test #	Dia	Depth	Matrix Description	Comments
1	51	65	Level 1: 0-32 cm: M1 Level 2: 32-65 cm: M2	Negative Shovel Test. Water table at 62 cm dbs.
2	48	87	Level 1: 0-39 cm: M1 Level 2: 39-77 cm: M2 Level 3: 77-87 cm: M3	Negative Shovel Test.
3	51	69	Level 1: 0-27 cm: M1 Level 2: 27-54 cm: M2 Level 3: 54-69 cm: M3	Negative Shovel Test.
4	50	77	Level 1: 0-30 cm: M1 Level 2: 30-70 cm: M2 Level 3: 70-77 cm: M3	Negative Shovel Test.
5	50	70	Level 1: 0-39cm: M1 Level 2: 39-65 cm: M2 Level 3: 65-70 cm: M3	Negative Shovel Test.
6	50	80	Level 1: 0-35 cm: M1 Level 2: 35-75 cm: M2 Level 3: 75-80 cm: M3	Negative Shovel Test.
7	51	74	Level 1: 0-36 cm: M1 Level 2: 36-46 cm: M1 mixed with M2 Level 3: 46-65 cm: M2 Level 3: 65-74 cm: M3	Negative Shovel Test. Water table at 70 cm dbs.
8	47	42	Level 1: 0-35 cm: M1 Level 2: 35-42 cm: M3	Negative Shovel Test. Water table at 35 cm dbs.
9	61	47	Level 1: 0-19 cm: M1 Level 2: 19-47 cm: M3	Negative Shovel Test. Water table at 45 cm dbs.

## Machine Test Descriptions

Trench #	Location	Length	Orien-tation	Description
1	Along fence	2.5 m	E/W	moved trench because we encountered gravels from old road bed, only dug to approximately 10 cm and then encountered pebbles
2	N of T1	2.0 m	SW/NE	0-35 cm dbs M1; 35 -50 cm dbs M2; 50 - 110 M3 with water table at approximately 70 cm dbs
3	S of fence	3 m	N/S	0-35 cm dbs M1 35-40 cm dbs gradual interface with M3; M2 40-90 cm dbs M3 Single boulder
4	E of Silo	3 m	N/S	Similar profile to previous trenches with a buried tree root at about 70 cm. Single boulder
5	E of Silo	2.5 m	E/W	Similar profile to previous trenches with top soil (M1) deeper in this trench too approximately 45 cm deep. Much dryer on the surface here.
6	E of lagoon	2 m	N/S	M1 0-50 cm with a more gradual interface; Water table at approximately 70 cm dbs; fewer cobbles than other trenches but still very rocky

## Appendix 2: Photograph Log

Date	Photo #	View	Description
June 8, 2010	1	SE	Mt. Rainier from the subject property
June 8, 2010	2	W	Trench testing
June 8, 2010	3	N	Tacks from backhoe
June 8, 2010	4	N	Tacks from backhoe
June 8, 2010	5	NW	Shovel test 2
June 8, 2010	6	NW	Shovel test 2
June 8, 2010	7	E	Excavating shovel test 5
June 8, 2010	8	W	View of project area from shovel test 4
June 8, 2010	9	SW	View of project area from shovel test 4
June 8, 2010	10	SE	Shovel test 4
June 8, 2010	11	SE	Shovel test 4
June 8, 2010	12	N	Shovel test 6
June 8, 2010	13	NW	Shovel test 8
June 8, 2010	14	NW	Shovel test 8
June 8, 2010	15	W	Shovel test 9
June 8, 2010	16	S	Project area
June 8, 2010	17	E	Project area
June 8, 2010	18	SE	Project area
June 8, 2010	19	SE	Project area
June 8, 2010	20	W	View towards farm structures
June 8, 2010	21	SW	Project area
June 8, 2010	22	W	Barn
June 8, 2010	23	W	Silage area
June 8, 2010	24	SE	Project area
June 8, 2010	25	E	Project area
June 8, 2010	26	N	Shovel test 1
June 8, 2010	27	N	Shovel test 1
June 8, 2010	28	S	Shovel test 1
June 8, 2010	29	S	Shovel test 1
June 8, 2010	30	S	Shovel test 3
June 8, 2010	31	S	Shovel test 3
June 8, 2010	32	W	Shovel test 5
June 8, 2010	33	W	Shovel test 5
June 8, 2010	34	W	Shovel test 7
June 8, 2010	35	W	Shovel test 7
June 8, 2010	P6080008	NE	Across the north field
June 8, 2010	P6080009	E	Across the north field

<b>Date</b>	<b>Photo #</b>	<b>View</b>	<b>Description</b>
June 8, 2010	P6080010	E	Across the north field
June 8, 2010	P6080011	N	Across the north field
June 8, 2010	P6080012	NW	Silage pit
June 8, 2010	P6080013	NW	T1
June 8, 2010	P6080014	NW	T2 at 60 cms
June 8, 2010	P6080015	NW	T2 base at 85 cms
June 8, 2010	P6080016	N	T2 location
June 8, 2010	P6080017	W	T2 location
June 8, 2010	P6080018	SW	T3 base
June 8, 2010	P6080019	SW	Location of T3
June 8, 2010	P6080020	W	Location of T4
June 8, 2010	P6080021	NE	View from T4 looking towards archaeology technician field testing
June 8, 2010	P6080022	W	T4 profile
June 8, 2010	P6080023	S	T4 spoils pile
June 8, 2010	P6080024	SW	T4 at 60 cms
June 8, 2010	P6080025	W	T5 location
June 8, 2010	P6080026	NE	T5 profile
June 8, 2010	P6080027	NW	T5 profile
June 8, 2010	P6080028	NW	T6 profile
June 8, 2010	P6080029	W	T6 profile
June 8, 2010	P6080030	W	T6 location
June 8, 2010	P6080031	W	Looking over the lagoon
June 8, 2010	P6080032	NW	Overview of the testing area
June 8, 2010	P6080033	SE	Looking toward Mount Rainier
June 8, 2010	P6080034	N	Archaeology technicians digging ST 8 and 9
June 8, 2010	P6080035	NW	Overview of the building area
June 8, 2010	P6080036	W	Overview of the building area
June 8, 2010	P6080037	SW	Overview of the building area

## *Appendix 3: Unanticipated Discoveries Protocol*

### **Unanticipated Discoveries Protocol**

In the event that any ground-disturbing activities or other project activities related to this development or in any future development uncover protected cultural material (e.g., bones, shell, antler, horn or stone tools), the following actions will be taken:

1. If an unanticipated discovery of protected cultural material (see definitions below) occurs, the contractor will completely secure the location and contact:
  - a. The Farm Power Northwest representative;
  - b. A professional archaeologist;
  - c. The Department of Archaeology and Historic Preservation (DAHP) (Robert Whitlam 360-586-3080;
  - d. and the Muckleshoot Indian Tribe (Laura Murphy 253-876-3272)
  
2. If the discovery is human remains, the property owner or contractor will stop work in and adjacent to the discovery, completely secure the work area by moving the land-altering equipment to a reasonable distance to continue working, and will immediately contact:
  - a. The Farm Power Northwest representative;
  - b. The King County Sheriff's Department (206-296-4155) and;
  - c. The King County Medical Examiner's Office (206-731-3232) to determine if the remains are forensic in nature.
  - d. If the remains are not forensic in nature the Department of Archaeology and Historic Preservation (DAHP) (Guy Tasa Physical Anthropologist 360-586-3534); will take the lead on determining the appropriate management and consultation for the remains.

Cultural material that may be protected by law could include but not be limited to:

- Logging, mining, or agriculture equipment older than 50 years;
- Historic bottles and cans;
- Historic building foundations or relics older than 50 years;
- Buried layers of black soil with layers of shell, charcoal, and fish and mammal bones (Figure 16, Figure 17). Buried cobbles that may indicate a hearth feature;
- Non natural sediment or stone deposits such as rock alignments that may be related to activity areas of people;
- Refuse areas older than 50 years;
- Stone, bone, shell, horn, or antler tools that may include projectile points (arrowheads), scrapers, cutting tools, wood working wedges or axes, and grinding stones (Figure 18);
- Stone tools or stone flakes (Figure 19);
- Perennially damp areas may have preservation conditions that allow for remnants of wood and other plant fibers; in these locations there may be remains including fragments of basketry, weaving, wood tools, or carved pieces; and
- Human remains.



Figure 16: Example of flaked cobble tool for the UDP.



Figure 17: Example of shell midden in profile for the UDP.



Figure 18: Example of worked bone and spines for UDP.



Figure 19: Example of adze blade for UDP.



Figure 20: Example of sandstone abrader for UDP.



Figure 21: Example of Flaked Cobble tool for UDP.



Figure 22: Example of ground stone point for UDP.

### Human Remains Protocol

The following Protocol is intended to cover situations in which “inadvertent discovery” of previously unidentified human remains are made and will be followed during all project actions that may result in ground disturbing activity and the inadvertent discoveries.

Any human remains discovered during this project will be treated at all times with dignity and respect.

Upon discovery of human remains, whether complete burial or isolated remains and whether intact or fragmentary, a full stop of all construction activities within an area of not less than thirty (30) feet of the remains should be implemented and:

- Implement reasonable measures to protect the discovery site for evaluation, including and stabilization or covering appropriate to the site, for example, insure that steel plates secure the discovery site;
- Take reasonable measures to insure the confidentiality (as per RCW 42.17.310) of the discovery site providing clear statements to the workers to ensure the discovery is not discussed off site; and
- Take reasonable steps to restrict access to the site of discovery;
- Human remains and associated funerary objects shall remain in place, uncleaned, undisturbed and without analysis.

The on-site superintendent will contact the King County Sheriff, who will if necessary; contact the King County Medical Examiner to confirm the human remains are not forensic in nature. If law

enforcement determines that the discovery is forensic the contractor and Farm Power Northwest will work with law enforcement to address the situation.

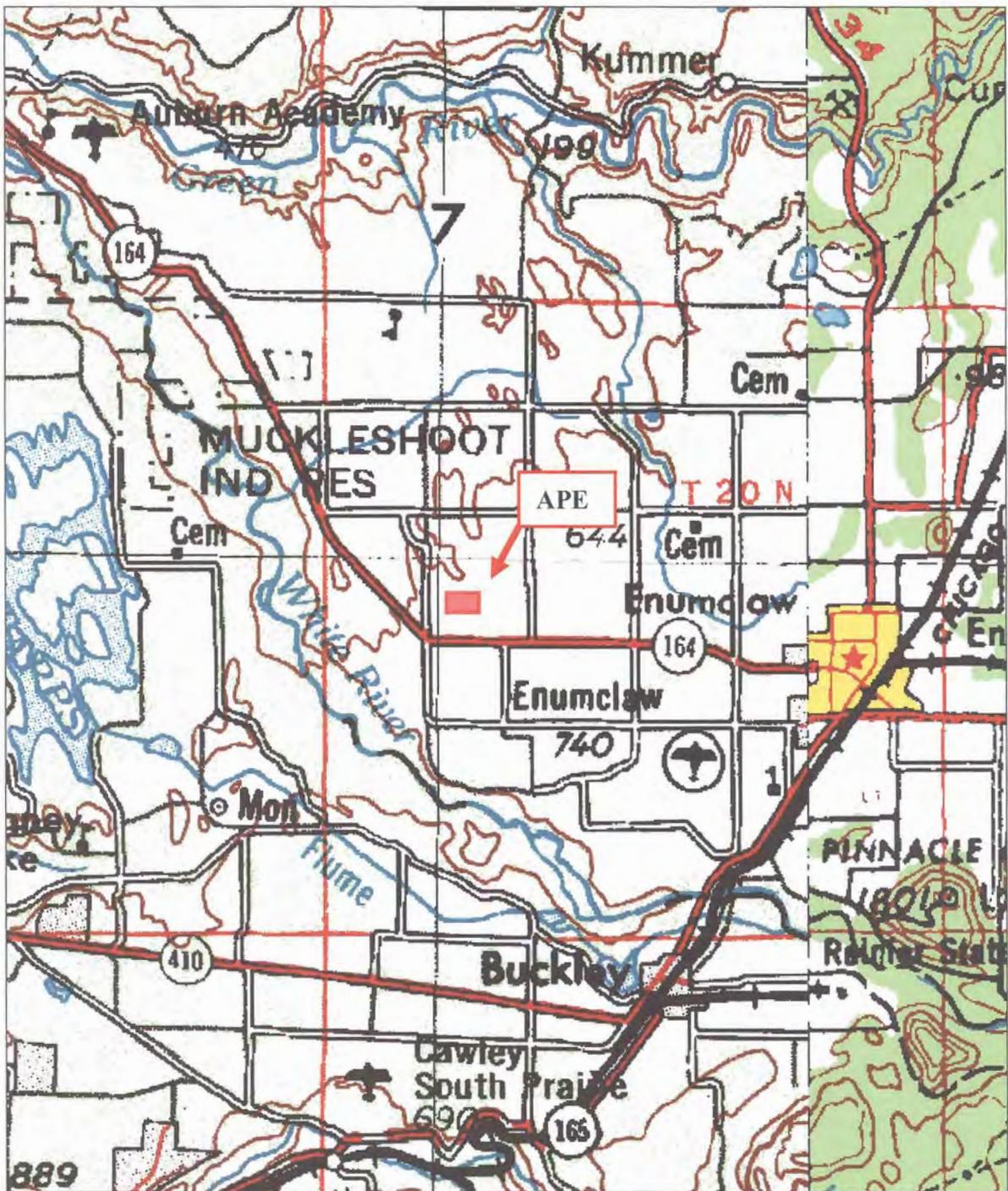
If the remains are not forensic in nature, the medical examiner will then transfer control of the process to the DAHP who will take responsibility for management of the remains including consultation with the affected Tribes.

If a situation develops, or if a dispute arises about the implementation of any of these procedures, the stakeholders shall work together to address the situation and project activities shall proceed when consensus is reached among the parties. A written document of that consensus will be distributed by the Lead Agency, in this case USDA Rural Development.

Table 3: Project Contact List

<b>Name</b>	<b>Affiliation</b>	<b>Numbers</b>
Daryl Maas	Farm Power Northwest	360-424-4519
King County Sheriff Office	King County Sheriff Office	206-296-4155
King County Medical Examiner	King County Medical Examiner's Office	206-731-3232
Laura Murphy	Muckleshoot Indian Tribe	253-876-3272
Robert Whitlam	State Archaeologist (DAHP)	360-586-3080
Guy Tasa	Physical Anthropologist, DAHP	360-586-3534
Kelly Bush	Archaeologist, ERCI	360-661-0356

Appendix 4: Buckley Quadrangle Map





United States  
Department of  
Agriculture  
TTY: 360-704-7760

**Rural  
Development**

State Office  
1835 Black Lake Blvd SW, Ste B  
Olympia, WA 98512-5716

FAX: 360-704-7742  
TEL: 360-704-7711

Rural Business - Cooperative Service  
Rural Housing Service  
Rural Utilities Service

June 17, 2010

Rob Whitlam, Ph.D.  
State Archeologist  
Department of Archeology and Historic Preservation  
P.O. Box 48343  
Olympia, Washington 99504-8343

RE: 36 CFR Part 800, Protection of Historic Properties –  
Rainier Biogas Facility, King County

Dear Dr. Whitlam:

Pursuant to 36 CFR Part 800, Section 800.3(a), USDA Rural Development (RD) is proposing to develop an undertaking with Farm Power Northwest for a Biogas project in southeastern King County. Farm Power is leasing approximately four acres of land from Ritter Dairy at 43218 208<sup>th</sup> Avenue SE in Enumclaw to install an anaerobic manure digester and associated infrastructure. The location of the project is Section 20, Township 20 North, and Range 6 East in King County. The enclosed draft cultural report prepared by ERCI dated June 14, 2010, contains maps of the areas.

The survey concludes that no archeological or historical properties were identified during the investigation within the project area. ECRI recommends that the project proceed as proposed. Therefore, based upon the CRS and in accordance with 36 CFR 800.5(c) (2), RD has determined that these undertakings will not adversely affect historic or undiscovered prehistoric properties.

RD, in order to avoid, minimize, or mitigate any future actions, which could lead to the discovery of human remains and/or unidentified cultural resources uncovered during the course of the ground disturbing activities of this undertaking, will require that the recommendation of an Unanticipated Discovery Plan (UDP) be incorporated in our contract documents with the applicant and the contractors be made aware of the conditions.

Per 36CFR 800.11(d), RD is hopeful that the attached cultural resource survey provides sufficient documentation to support RD's finding of "no historic or prehistoric properties affected".



United States  
Department of  
Agriculture  
TTY: 360-704-7760

Rural  
Development

State Office  
1835 Black Lake Blvd SW, Ste B  
Olympia, WA 98512-5716

FAX: 360-704-7742  
TEL: 360-704-7711

Rural Business - Cooperative Service  
Rural Housing Service  
Rural Utilities Service

June 17, 2010

Mr. Steve Mullen  
Tribal Historic Preservation Officer  
Snoqualmie Tribe  
8130 Railroad Ave. NE  
P.O. Box 969  
Snoqualmie, Washington 98065

RE: 36 CFR Part 800, Protection of Historic Properties –  
Rainier Biogas Facility, King County

Dear Mr. Mullen:

Pursuant to 36 CFR Part 800, Section 800.3(a), USDA Rural Development (RD) is proposing to develop an undertaking with Farm Power Northwest for a Biogas project in southeastern King County. Farm Power is leasing approximately four acres of land from Ritter Dairy at 43218 208<sup>th</sup> Avenue SE in Enumclaw to install an anaerobic manure digester and associated infrastructure. The location of the project is Section 20, Township 20 North, and Range 6 East in King County. The enclosed draft cultural report prepared by ERCI dated June 14, 2010, contains maps of the areas.

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Per 36CFR 800.11(d), RD is hopeful that the attached cultural resource survey provides sufficient documentation to enable the Tribe to support RD's finding of "no historic or prehistoric properties affected."



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FAX: 360-704-7742  
TEL: 360-704-7711

Rural Business - Cooperative Service  
Rural Housing Service  
Rural Utilities Service

June 17, 2010

Mr. Johnson Meninick  
Confederated Bands and Tribes of the Yakama Nation  
Tribal Historic Preservation Office  
PO Box 151  
Toppenish WA 98948

RE: 36 CFR Part 800, Protection of Historic Properties –  
Rainier Biogas Facility, King County

Dear Mr. Meninick:

Pursuant to 36 CFR Part 800, Section 800.3(a), USDA Rural Development (RD) is proposing to develop an undertaking with Farm Power Northwest for a Biogas project in southeastern King County. Farm Power is leasing approximately four acres of land from Ritter Dairy at 43218 208<sup>th</sup> Avenue SE in Enumclaw to install an anaerobic manure digester and associated infrastructure. The location of the project is Section 20, Township 20 North, and Range 6 East in King County. The enclosed draft cultural report prepared by ERCI dated June 14, 2010, contains maps of the areas.

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Rural Business - Cooperative Service  
Rural Housing Service  
Rural Utilities Service

FAX: 360-704-7742  
TEL: 360-704-7711

June 17, 2010

The Honorable Charlotte Williams, Chair  
Muckleshoot Tribal Council  
39015 172nd Avenue SE  
Auburn, WA 98092

RE: 36 CFR Part 800, Protection of Historic Properties –  
Rainier Biogas Facility, King County

Dear Chairperson Williams:

Pursuant to 36 CFR Part 800, Section 800.3(a), USDA Rural Development (RD) is proposing to develop an undertaking with Farm Power Northwest for a Biogas project in southeastern King County. Farm Power is leasing approximately four acres of land from Ritter Dairy at 43218 208<sup>th</sup> Avenue SE in Enumclaw to install an anaerobic manure digester and associated infrastructure. The location of the project is Section 20, Township 20 North, and Range 6 East in King County. The enclosed draft cultural report prepared by ERCI dated June 14, 2010, contains maps of the areas.

The survey concludes that no archeological or historical properties were identified during the investigation within the project area. ECRI recommends that the project proceed as proposed. Therefore, based upon the CRS and in accordance with 36 CFR 800.5(c) (2), RD has determined that these undertakings will not adversely affect historic or undiscovered prehistoric properties.

RD, in order to avoid, minimize, or mitigate any future actions, which could lead to the discovery of human remains and/or unidentified cultural resources uncovered during the course of the ground disturbing activities of this undertaking, will require that the recommendation of an Unanticipated Discovery Plan (UDP) be incorporated in our contract documents with the applicant and the contractors be made aware of the conditions.

Per 36CFR 800.11(d), RD is hopeful that the attached cultural resource survey provides sufficient documentation to enable the Tribe to support RD's finding of "no historic or prehistoric properties affected"



United States  
Department of  
Agriculture  
TTY: 360-704-7760

**Rural  
Development**

**State Office**  
1835 Black Lake Blvd SW, Ste B  
Olympia, WA 98512-5716

FAX: 360-704-7742  
TEL: 360-704-7711

Rural Business - Cooperative Service  
Rural Housing Service  
Rural Utilities Service

June 17, 2010

The Honorable Chair  
Colville Business Council  
PO Box 150  
Nespelem, WA 99155

RE: 36 CFR Part 800, Protection of Historic Properties –  
Rainier Biogas Facility, King County

Dear Chair:

Pursuant to 36 CFR Part 800, Section 800.3(a), USDA Rural Development (RD) is proposing to develop an undertaking with Farm Power Northwest for a Biogas project in southeastern King County. Farm Power is leasing approximately four acres of land from Ritter Dairy at 43218 208<sup>th</sup> Avenue SE in Enumclaw to install an anaerobic manure digester and associated infrastructure. The location of the project is Section 20, Township 20 North, and Range 6 East in King County. The enclosed draft cultural report prepared by ERCI dated June 14, 2010, contains maps of the areas.

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Per 36CFR 800.11(d), RD is hopeful that the attached cultural resource survey provides sufficient documentation to enable the Tribe to support RD's finding of "no historic or prehistoric properties affected"

# FedEx

## Shipment Receipt

### Address Information

<b>Ship to:</b>	<b>Ship from:</b>
Dr. Rob Whitlam, Ph.D.	Janice Roderick
Dept. of Archeology & Historic Pres	USDA Rural Development
1063 CAPITOL WAY S STE 106	1835 Black Lake Boulevard SW
OLYMPIA, WA 985011263	Suite B Olympia, WA 98512
US 360 584-3065	US 3607047739

### Shipping Information

Tracking number: 798768833291  
Ship date: 06/17/2010  
Estimated shipping charges: 3.70

### Package Information

Service type: FedEx 2-Day  
Package type: FedEx Envelope  
Number of packages: 1  
Total weight: 1LBS  
Declared value: 100.00USD  
Special Services:  
Pickup/Drop-off: Use an already scheduled pickup at my location

### Billing Information

Bill transportation to: Sender  
Your reference: Rainier Biogas Facility  
P.O. no.:  
Invoice no.:  
Department no.:

Thank you for shipping online with FedEx ShipManager at [fedex.com](http://fedex.com).

### Please Note

FedEx will not be responsible for any claim in excess of \$100 per package, whether the result of loss, damage, delay, non-delivery, misdelivery, or misinformation, unless you declare a higher value, pay an additional charge, document your actual loss and file a timely claim. Limitations found in the current FedEx Service Guide apply. Your right to recover from FedEx for any loss, including intrinsic value of the package, loss of sales, income interest, profit, attorney's fees, costs, and other forms of damage whether direct, incidental, consequential, or special is limited to the greater of \$100 or the authorized declared value. Recovery cannot exceed actual documented loss. Maximum for items of extraordinary value is \$500, e.g., jewelry, precious metals, negotiable instruments and other items listed in our Service Guide. Written claims must be filed within strict time limits; Consult the applicable FedEx Service Guide for details. The estimated shipping charge may be different than the actual charges for your shipment. Differences may occur based on actual weight, dimensions, and other factors. Consult the applicable FedEx Service Guide or the FedEx Rate Sheets for details on how shipping charges are calculated.

# FedEx

## Shipment Receipt

### Address Information

<b>Ship to:</b>	<b>Ship from:</b>
Camille Pleasants, THPO	Janice Roderick
Conf. Tribes of the Colville Res.	USDA Rural Development
1 Colville Street	1835 Black Lake Boulevard
	SW
Administration Building	Suite B
NESPELEM, WA	Olympia, WA
991550150	98512
US	US
509 634-2200	3607047739

### Shipping Information

Tracking number: 798768812488  
 Ship date: 06/17/2010  
 Estimated shipping charges: 4.77

### Package Information

Service type: FedEx 2-Day  
 Package type: FedEx Envelope  
 Number of packages: 1  
 Total weight: 1LBS  
 Declared value: 100.00USD  
 Special Services:  
 Pickup/Drop-off: Use an already scheduled pickup at my location

### Billing Information

Bill transportation to: Sender  
 Your reference: Rainier Biogas Facility  
 P.O. no.:  
 Invoice no.:  
 Department no.:

Thank you for shipping online with FedEx ShipManager at [fedex.com](http://fedex.com).

### Please Note

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**Shipment Receipt**
**Address Information**

<b>Ship to:</b>	<b>Ship from:</b>
Mr. Steve Mullen	Janice Roderick
Snoqualmie Tribe	USDA Rural Development
8130 Railroad Avenue NE	1835 Black Lake Boulevard
	SW
	Suite B
Snoqualmie, WA	Olympia, WA
98065	98512
US	US
360-704-7739	3607047739

**Shipping Information**

Tracking number: 798768788310  
 Ship date: 06/17/2010  
 Estimated shipping charges: 4.77

**Package Information**

Service type: FedEx 2-Day  
 Package type: FedEx Envelope  
 Number of packages: 1  
 Total weight: 1LBS  
 Declared value: 100.00USD  
 Special Services:  
 Pickup/Drop-off: Use an already scheduled pickup at my location

**Billing Information**

Bill transportation to: Sender  
 Your reference: Rainier Biogas Facility  
 P.O. no.:  
 Invoice no.:  
 Department no.:

Thank you for shipping online with Fedex ShipManager at [fedex.com](http://fedex.com).

**Please Note**

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**Shipment Receipt**
**Address Information**

<b>Ship to:</b>	<b>Ship from:</b>
Mr. Johnson Merinick	Janice Roderick
Yakama Nation, Cultural Resources	USDA Rural Development
401 Fort Road	1835 Black Lake Boulevard
	SW
	Suite B
TOPPENISH, WA	Olympia, WA
98948	98512
US	US
(509) 865-5121	3607047739

**Shipping Information**

Tracking number: 798768767448  
 Ship date: 06/17/2010  
 Estimated shipping charges: 4.77

**Package Information**

Service type: FedEx 2-Day  
 Package type: FedEx Pak  
 Number of packages: 1  
 Total weight: 1LBS  
 Declared value: 100.00USD  
 Special Services:  
 Pickup/Drop-off: Use an already scheduled pickup at my location

**Billing Information**

Bill transportation to: Sender  
 Your reference: Rainier Biogas Facility  
 P.O. no.:  
 Invoice no.:  
 Department no.:

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**Shipment Receipt**
**Address Information**

<b>Ship to:</b> The Honorable Charlotte Williams Muckleshoot Tribe 39015 172ND AVE SE  AUBURN, WA 980929763 US 360-704-7739	<b>Ship from:</b> Janice Roderick  USDA Rural Development 1835 Black Lake Boulevard SW Suite B Olympia, WA 98512 US 3607047739
--	--

**Shipping Information**

Tracking number: 798768754025  
 Ship date: 06/17/2010  
 Estimated shipping charges: 3.70

**Package Information**

Service type: FedEx 2-Day  
 Package type: FedEx Envelope  
 Number of packages: 1  
 Total weight: 1LBS  
 Declared value: 100.00USD  
 Special Services:  
 Pickup/Drop-off: Use an already scheduled pickup at my location

**Billing Information**

Bill transportation to: Sender  
 Your reference: Rainier biogas Facility  
 P.O. no.:  
 Invoice no.:  
 Department no.:

Thank you for shipping online with Fedex ShipManager at [fedex.com](http://fedex.com).

**Please Note**

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# FedEx

## Shipment Receipt

### Address Information

<b>Ship to:</b>	<b>Ship from:</b>
Select or enter	Janice Roderick
Chair, Colville Business Council	USDA Rural Development
Administration Building	1835 Black Lake Boulevard
	SW
1 Colville Street	Suite B
NESPELEM, WA	Olympia, WA
99155	98512
US	US
360 704-7739	3607047739

### Shipping Information

Tracking number: 798768674929  
 Ship date: 06/17/2010  
 Estimated shipping charges: 4.77

### Package Information

Service type: FedEx 2-Day  
 Package type: FedEx Envelope  
 Number of packages: 1  
 Total weight: 1LBS  
 Declared value: 100.00USD  
 Special Services:  
 Pickup/Drop-off: Use an already scheduled pickup at my location

### Billing Information

Bill transportation to: Sender  
 Your reference: Rainier Biogas  
 P.O. no.:  
 Invoice no.:  
 Department no.:

Thank you for shipping online with Fedex ShipManager at [fedex.com](http://fedex.com).

### Please Note

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STATE OF WASHINGTON

**DEPARTMENT OF ARCHAEOLOGY & HISTORIC PRESERVATION**

1063 S. Capitol Way, Suite 106 • Olympia, Washington 98501  
Mailing address: PO Box 48343 • Olympia, Washington 98504-8343  
(360) 586-3065 • Fax Number (360) 586-3067 • Website: [www.dahp.wa.gov](http://www.dahp.wa.gov)

June 21, 2010

Ms. Janice Roderick  
USDA—Rural Development  
1835 Black Lake Blvd., SW, Suite B  
Olympia, Washington 98512-5716

Re: Rainier Biogas Facility Project  
Log No: 051710-02-USDA-RD

Dear Ms. Roderick:

Thank you for contacting our Department. We have reviewed the materials you provided for the proposed Rainier Biogas Facility Project at 43218 208<sup>th</sup> Avenue SE, Enumclaw, King County, Washington.

We concur with the determination of No Historic Properties Affected.

We would appreciate receiving any correspondence or comments from concerned tribes or other parties that you receive as you consult under the requirements of 36CFR800.4(a)(4).

These comments are based on the information available at the time of this review and on the behalf of the State Historic Preservation Officer in conformance with Section 106 of the National Historic Preservation Act and its implementing regulations 36CFR800. Should additional information become available, our assessment may be revised.

In the event that archaeological or historic materials are discovered during project activities, work in the immediate vicinity must stop, the area secured, and the tribes' cultural departments and this department notified. Thank you for the opportunity to comment and a copy of these comments should be included in subsequent environmental documents.

Sincerely,

Robert G. Whitlam, Ph.D.  
State Archaeologist  
(360) 586-3080  
email: [rob.whitlam@dahp.wa.gov](mailto:rob.whitlam@dahp.wa.gov)

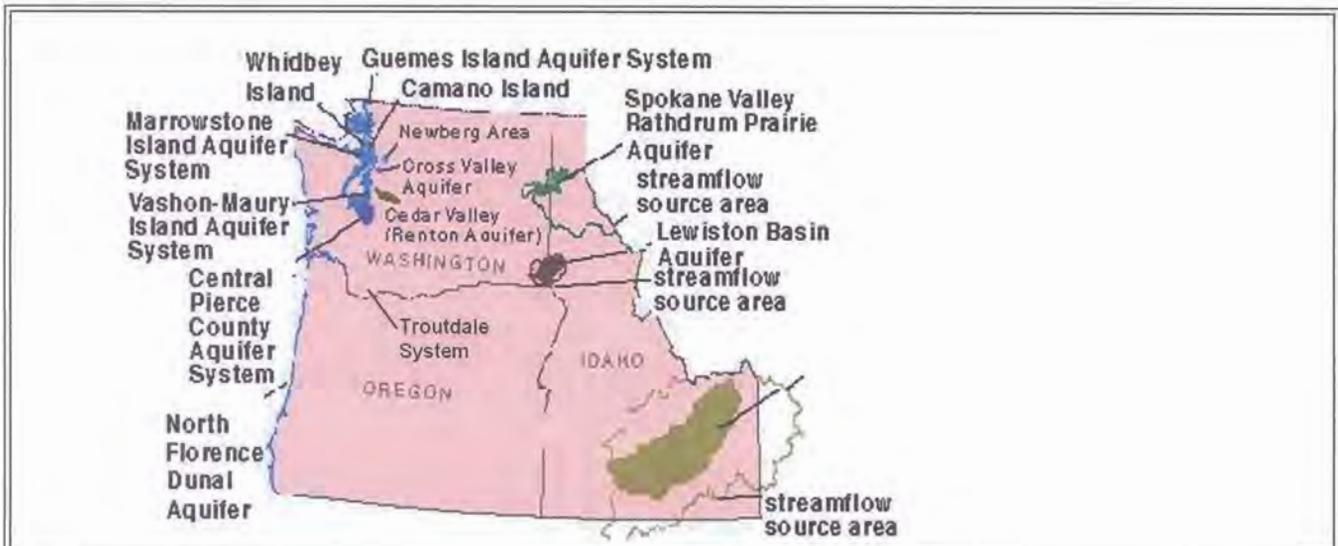


**DEPARTMENT OF ARCHAEOLOGY & HISTORIC PRESERVATION**

*Protect the Past. Shape the Future*

# Designated Sole Source Aquifers in EPA Region X

Alaska, Idaho, Oregon, Washington

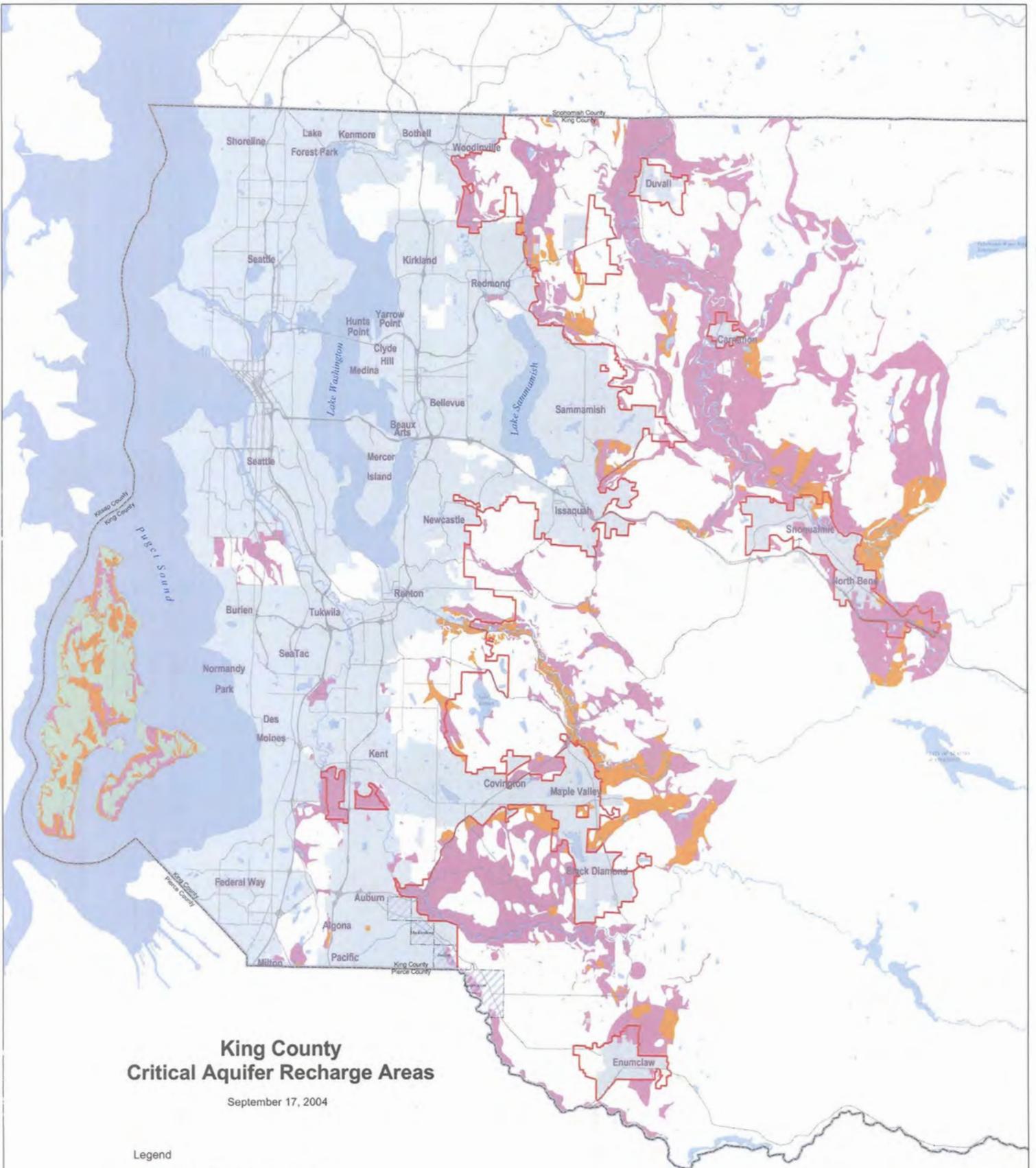


Sue Ennes  
 Drinking Water Unit  
 EPA, Region 10 (OW136)  
 1200 Sixth Ave. Suite 900  
 Seattle, WA 98101  
 phone: (206) 553-6249  
 e-mail: ennes.susan@epa.gov

The 14 designated sole source aquifers in Region X are listed below. Visit [EPA Region X](#) for SSA maps and details. \*Note: There are no sole source aquifers in the State of Alaska.

## DESIGNATED SOLE SOURCE AQUIFERS IN REGION X

State	Sole Source Aquifer Name	Federal Reg. Cit.	Publ. Date	GIS map
ID/WY	Eastern Snake River Plain Aquifer	56 FR 50638	10/7/1991	yes
OR	North Florence-Dunal Aquifer	52 FR 37519	10/7/1987	yes
WA	Troutdale Aquifer System	71 FR 8217-2	9/6/2006	yes
WA/ID	Spokane Valley Rathdrum Prairie Aquifer	42 FR 5566	2/9/1978	yes
WA	Camano Island Aquifer	47 FR 14779	4/6/1982	yes
WA	Whidbey Island Aquifer	47 FR 14779	4/6/1982	yes
WA	Cross Valley Aquifer	52 FR 18606	5/18/1987	yes
WA	Newberg Area Aquifer	52 FR 37215	10/5/1987	yes
WA	Cedar Valley (Renton Aquifer)	53 FR 38779	10/3/1988	yes
WA/ID	Lewiston Basin Aquifer	53 FR 49920	12/12/1988	yes
WA	Central Pierce Cty. Aquifer Syst.	59 FR 224	1/3/1994	yes
WA	Marrowstone Isl. Aquifer Syst.	59 FR 28752	6/2/1994	yes
WA	Vashon-Maury Isl. Aquifer Syst.	59 FR 34468	7/5/1994	yes
WA	Guemes Island Aquifer System	62 FR 5928-3	12/1/1997	yes



## King County Critical Aquifer Recharge Areas

September 17, 2004

- Legend**
- Critical Aquifer Recharge Area (Category 1)
  - Critical Aquifer Recharge Area (Category 2)
  - Critical Aquifer Recharge Area (Category 3)
  - Incorporated City
  - Tribal Lands
  - Urban Growth Area Boundary

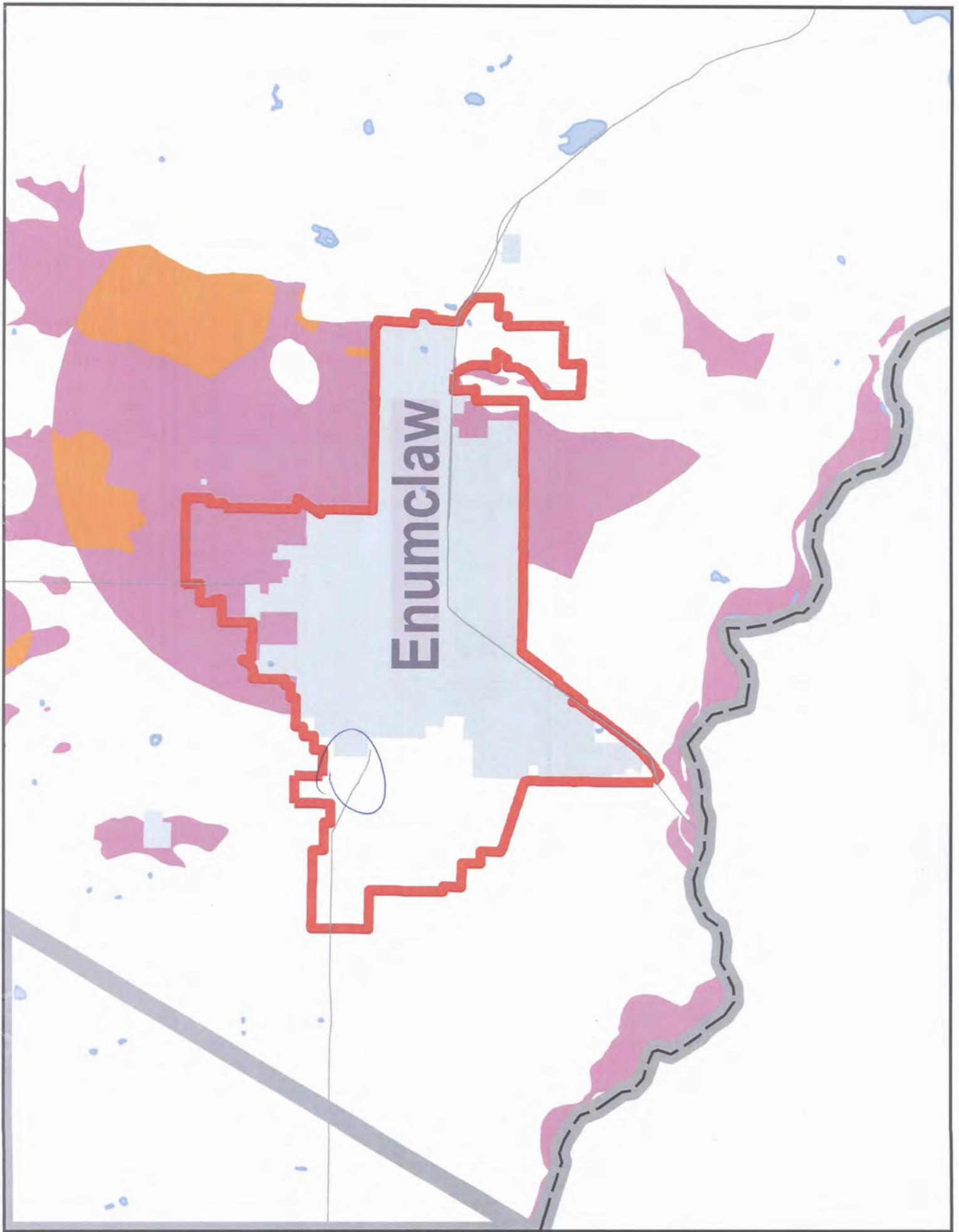
The information included on this map has been compiled by King County staff from a variety of sources and is subject to change without notice. King County makes no representation or warranty, express or implied, as to accuracy, completeness, timeliness, or utility for any purpose, special, indirect, incidental, or consequential damages, including, but not limited to, lost revenue or lost profits resulting from the use or misuse of the information contained on this map. Any sale of this map or information on this map is prohibited except by written permission of King County.

**King County**

1 0.5 1 2 3 Miles

Attachment B

\\fs1\prod\mrc\area\_1.gis.mxd  
ARC: \\fs1\prod\mrc\area\_1.gis.mxd\_20040915\_area\_1.gis.pdf



## Exley, Sharon - Mount Vernon, WA

---

**From:** Steward, Kara (ECY) [kste461@ecy.wa.gov]  
**Sent:** Friday, June 25, 2010 9:35 AM  
**To:** Exley, Sharon - Mount Vernon, WA  
**Cc:** Maurer, Dawn (ECY)  
**Subject:** RE: Rainier Biogas  
**Attachments:** Rainier Biogas USDA\_W2R.docx

Sharon,

Here are a few comments from the perspective of the solid waste handling permit exemption.

My apologies for the tardy response,  
kara

Kara J. Steward  
Washington State Department of Ecology  
Waste 2 Resources Program  
PO Box 47600  
Olympia, WA 98504-7600

360-407-6250 direct  
360-407-6102 fax  
360-280-3755 cell

Reply to [kara.steward@ecy.wa.gov](mailto:kara.steward@ecy.wa.gov) or [kste461@ECY.WA.GOV](mailto:kste461@ECY.WA.GOV)

Check out the Ecology Tire Website at: <http://www.ecy.wa.gov/programs/swfa/tires/>

Check out the Ecology Anaerobic Digester Website at: <http://www.ecy.wa.gov/programs/swfa/ad/>

---

**From:** Exley, Sharon - Mount Vernon, WA [mailto:Sharon.Exley@wa.usda.gov]  
**Sent:** Friday, June 25, 2010 8:58 AM  
**To:** Steward, Kara (ECY)  
**Subject:** RE: Rainier Biogas

Good morning Kara,  
Unless I missed it, I haven't heard back from your office yet on Rainier Biogas. Do you have any feedback for me? I'd like to finalize this NEPA this morning.  
Thanks,  
Sharon

Sharon Exley, Business Programs Specialist  
Rural Development  
U.S. Department of Agriculture  
2021 E College Way, Suite 216, Mt. Vernon, WA 98273  
Voice: 360-428-4322 x 159, TDD: 360-704-7772, Fax: 360-424-6172

[www.rurdev.usda.gov/wa](http://www.rurdev.usda.gov/wa)

"Committed to the future of rural communities" "Estamos dedicados al futuro de las comunidades rurales"

**DEPARTMENT OF ECOLOGY**  
Waste 2 Resources Program  
Headquarters - Statewide Resources Section

**Date:** June 25, 2010  
**To:** Sharon Exley, USDA, Mount Vernon Area Office  
**From:** Kara Steward, Ecology, Headquarters Statewide Resources Section  
**Subject:** Rainier Biogas, Anaerobic Digester NEPA Application

Thank you for providing Ecology's Waste 2 Resources Program the opportunity to review and comment on Rainier Biogas, Enumclaw, anaerobic digester NEPA Application. Our program has no comments on the NEPA application.

The application states that the digester facility "will comply with the Department of Ecology's Guidelines for Operating an Anaerobic Digester Exempt from Solid Waste Permitting." This document is Ecology publication no 09-07-029, located at <http://www.ecy.wa.gov/biblio/0907029.html>.

The applicant must submit to Ecology a notification of intent to operate an exempt agricultural anaerobic digester no less than 30-days prior to startup of the operation. The notification form is available at <http://www.ecy.wa.gov/biblio/ecy070356.html>. At that time the W2R program will review the operation to assess compliance with the conditions of the solid waste handling permit exemption.

Any intent to sell post-digested liquid or solids into various soil amendment markets (mentioned in [Project Description](#)) requires pre-approval by W2R in order for the digester to remain in compliance with the solid waste handling permit exemption.

Please contact me if there are additional questions.

Regards,

Kara Steward  
Waste 2 Resources Program  
PO Box 47600  
Olympia, WA 98504-7600  
360-407-6250 direct  
360-407-6102 fax  
360-280-3755 cell

**DEPARTMENT OF ECOLOGY**  
Waste 2 Resources Program  
Headquarters - Statewide Resources Section

**Date:** June 25, 2010  
**To:** Sharon Exley, USDA, Mount Vernon Area Office  
**From:** Kara Steward, Ecology, Headquarters Statewide Resources Section  
**Subject:** Rainier Biogas, Anaerobic Digester NEPA Application

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Please contact me if there are additional questions.

Regards,

Kara Steward  
Waste 2 Resources Program  
PO Box 47600  
Olympia, WA 98504-7600  
360-407-6250 direct  
360-407-6102 fax  
360-280-3755 cell



# National Wetlands Inventory

Previous Extent   Next Extent   Full Extent

Tools

Print Map

Streets

Imagery

Imagery/Labels   Topo

Enourdaw, WA 98022

Find Location

Zoom to:

select

## Available Layers

Help

- Wetlands
- Wetland Status
- Riparian
- Riparian Status
- Data Source
- Image Type
- Image Scale
- Image Year
- Areas of Interest

### Wetlands

- Freshwater Emergent
- Freshwater Forested/Shrub
- Estuarine and Marine Deepwater
- Estuarine and Marine
- Freshwater Pond
- Lake
- Riverine
- Other



Map Scale: 1:9028

Lat: 47.2186, Lng: -122.0750



USGS Home  
Contact USGS  
Search USGS

National Water Information System: Mapper

Include: All sites

Zoom to: Select a State...

or 43218 208th Ave. SE, Enumclaw Go

NWIS Home | Instructions | Disclaimer

Status:  
Click a site to access its data.  
(Current zoom level is 12.)

Cancel Drawing

**Surface-Water Sites**  
(streams, lakes, wetlands, estuaries,  
ocean, diversions, outfalls)

Any data  
 Multiple surface-water sites

**Groundwater Sites**  
(wells, any subsurface)

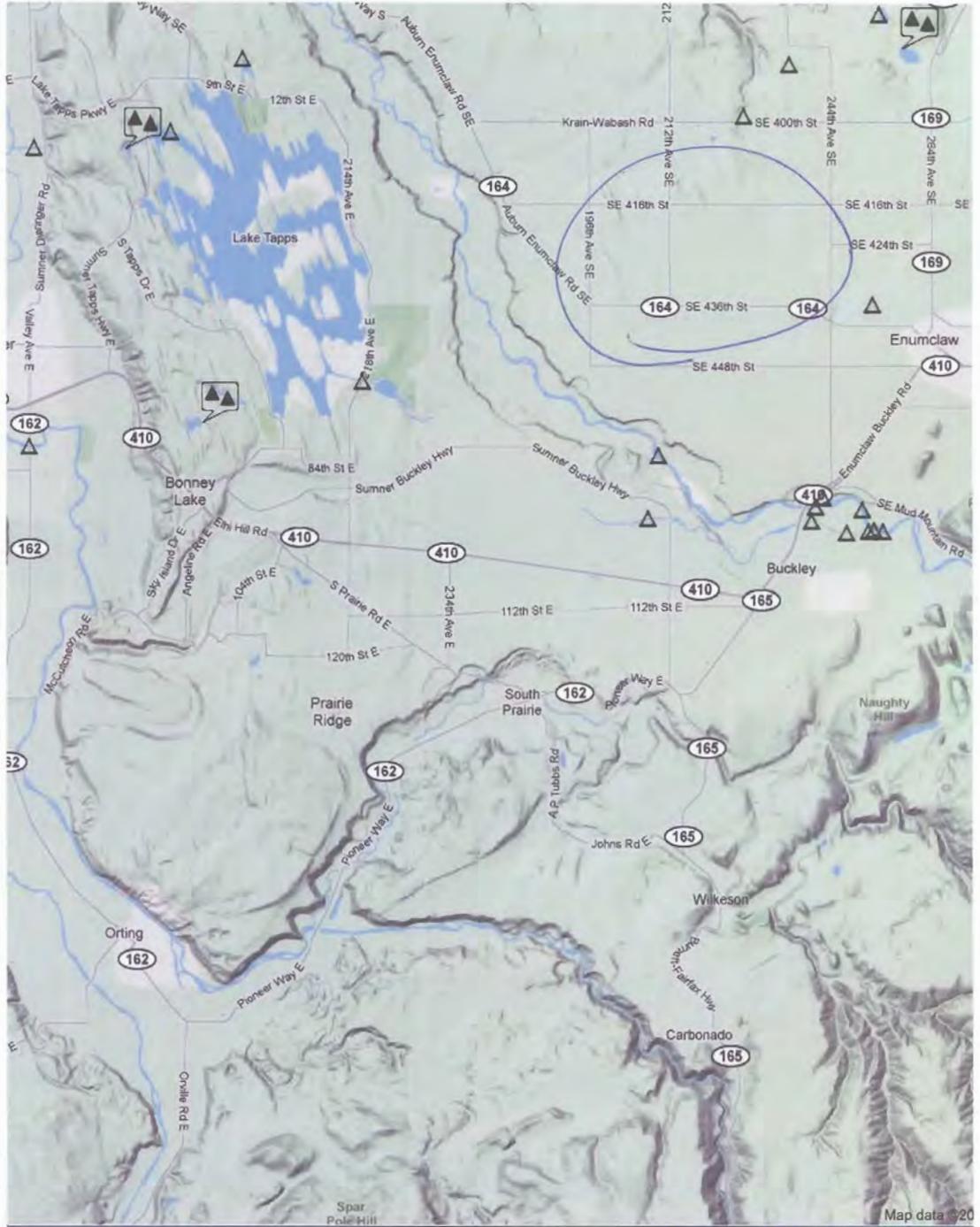
**Spring Sites**

**Atmospheric Sites**  
(climate, weather)

**Other Sites**  
(facilities, water use, any other)

List Sites

KML



Accessibility FOIA Privacy Policies and Notices

U.S. Department of the Interior | U.S. Geological Survey  
URL: <http://wdr.water.usgs.gov/nwisgmap/index.html>  
Questions about sites/data should be directed to [Water Webserver Team](#)  
Page Contact Information: [NWIS Mapper Team](#)  
Page Last Modified: 02 February 2010



# EPA: United States Environmental Protection Agency

**Air, Water, Waste...** Clear

Select an option to map:

- Air (0)
- Water (0)
- Waste (1)
- Land (1)
- Toxics (0)
- Radiation (0)

View:

All  20 per page

Single facility

Facility cluster

**Program Systems**

**Chemicals**

**Industry**

Search Place: 43218 208th Ave SE, Enumclaw, WA 98022

Search on map

Map interface showing a facility location in Enumclaw, WA. The map includes a search bar, a 'Clear' button, and a 'Search on map' button. The map displays a street grid with 208th Ave SE, 212th Ave SE, and SE 436th St. A green square icon represents the facility location. The map is powered by Bing, as indicated by the logo at the bottom left. The bottom right corner shows the copyright year © 2010. Below the map, there are several download options: Shapefile, Spreadsheet, GeoRSS, KML, Metadata, and Where Can I Get.

Facility Name/Address

LEA HILL RESERVOIRS 4A & 4B    
SE 304TH ST ON 132ND AVE SE COVINGTON, WA 98042

AIRS/AFS  ACRES  CERCLIS  PCS  RADInfo  RCRAInfo  TRI 

[View Report](#)

# EPA: United States Environmental Protection Agency



**Air, Water, Waste...**

**Program Systems**

Clear

Select a program system to map:

- Air Emissions (AIRS/AFS) (0)
- Superfund Sites (CERCLIS) (0)
- Toxic Releases (TRI) (0)
- Hazardous Waste (RCRAInfo) (1)
- Water Dischargers (PCS) (0)
- Brownfields (ACRES) (0)
- Biennial Reporting (BR) (0)
- RADInfo (0)

**View:**

All  20 per page

Single facility

Facility cluster

**Chemicals**

**Industry**

Search Place: 43218 208th Ave SE, Enumclaw, WA 98022 Search on map

Map interface showing a street grid. The map is centered on a location in Enumclaw, WA. The streets shown are 208th Ave SE, 212th Ave SE, and SE 436th St. A small green square is visible on the map, likely representing a facility. The Bing logo is visible in the bottom left corner of the map area. The copyright year 2010 is visible in the bottom right corner of the map area.

© 2010

Shapefile Spreadsheet GeoRSS KML Metadata Where Can I Get

Facility Name/Address

LEA HILL RESERVOIRS 4A & 4B    
SE 304TH ST ON 132ND AVE SE COVINGTON, WA 98042

AIRS/AFS  ACRES  CERCLIS  PCS  RADInfo  RCRAInfo  TRI 

[View Report](#)

## Exley, Sharon - Mount Vernon, WA

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**From:** Faulconer, Lee (AGR) [LFaulconer@agr.wa.gov]  
**Sent:** Wednesday, June 02, 2010 2:47 PM  
**To:** Exley, Sharon - Mount Vernon, WA  
**Cc:** Lang, Mary Beth (AGR)  
**Subject:** Rainier Biogas Digester Project

Thank you for the opportunity to review the Rainier Biogas NEPA Application. The Washington State Department of Agriculture has reviewed the document and we do not have any comments to make regarding it. As we stated before, we support this project and the NEPA Application looks good. Please feel free to call me at (360) 902-1804 or reply to this e-mail if you have any questions.

Sincerely,

Lee Faulconer  
Policy Assistant to the Director

## Exley, Sharon - Mount Vernon, WA

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**From:** Steward, Kara (ECY) [kste461@ecy.wa.gov]  
**Sent:** Monday, May 24, 2010 11:05 AM  
**To:** Exley, Sharon - Mount Vernon, WA  
**Subject:** RE: Rainier Biogas

Looks like a very complete list. I'll share my copy with my local facilities person (in our NW office). And she can forward to the right person at King County (just in case they have feedback).

Thanks for the info,  
kara

Kara J. Steward  
Washington State Department of Ecology  
Waste 2 Resources Program  
PO Box 47600  
Olympia, WA 98504-7600

360-407-6250 direct  
360-407-6102 fax  
360-280-3755 cell

Reply to [kara.steward@ecy.wa.gov](mailto:kara.steward@ecy.wa.gov) or [kste461@ECY.WA.GOV](mailto:kste461@ECY.WA.GOV)

Check out the Ecology Tire Website at: <http://www.ecy.wa.gov/programs/swfa/tires/>  
Check out the Ecology Anaerobic Digester Website at: <http://www.ecy.wa.gov/programs/swfa/ad/>

---

**From:** Exley, Sharon - Mount Vernon, WA [mailto:Sharon.Exley@wa.usda.gov]  
**Sent:** Monday, May 24, 2010 11:01 AM  
**To:** Steward, Kara (ECY)  
**Subject:** RE: Rainier Biogas

Hi Kara,  
Here's a list of the folks I've sent letters to. "-)

Sharon Exley, Business Programs Specialist  
Rural Development  
U.S. Department of Agriculture  
2021 E College Way, Suite 216, Mt. Vernon, WA 98273  
Voice: 360-428-4322 x 159, TDD: 360-704-7772, Fax: 360-424-6172

[www.rurdev.usda.gov/wa](http://www.rurdev.usda.gov/wa)

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---

**From:** Steward, Kara (ECY) [mailto:kste461@ecy.wa.gov]  
**Sent:** Monday, May 24, 2010 9:52 AM  
**To:** Exley, Sharon - Mount Vernon, WA  
**Subject:** Rainier Biogas

Sharon,

I received the NEPA application for Rainier Biogas. I'm curious if there are others you mailed this to – I generally email a pdf of the application to my regional facilities specialist, our counterparts in water and air quality, to the impacted county health district, and then to my partner (nora mena) at WSDA.

If you've already mailed to them, I'll skip the duplicate notice. But I'm happy to pass along the application for anyone else to provide input. I will be the point person from Waste 2 Resources for our feedback on the application – expect to send a very similar summary as the prior digester applications.

Thanks,

kara

Kara J. Steward

Washington State Department of Ecology

Waste 2 Resources Program

PO Box 47600  
Olympia, WA 98504-7600

360-407-6250 direct  
360-407-6102 fax  
360-280-3755 cell

Reply to [kara.steward@ecy.wa.gov](mailto:kara.steward@ecy.wa.gov) or [kste461@ECY.WA.GOV](mailto:kste461@ECY.WA.GOV)

Check out the Ecology Tire Website at: <http://www.ecy.wa.gov/programs/swfa/tires/>

Check out the Ecology Anaerobic Digester Website at: <http://www.ecy.wa.gov/programs/swfa/ad/>



United States Department of Agriculture  
Rural Development  
Mount Vernon Area Office

May 14, 2010

Mssrs. Daryl Maas and James Ritter  
Rainier Biogas  
20206 SE 436  
Enumclaw, WA 98022

Dear Mr. Maas and Mr. Ritter;

Rural Development has initiated an environmental review of your application requesting financial assistance to fund construction of an anaerobic digester in King County. Rural Development has determined that your proposal as planned may have an impact on important farmland.

As part of the environmental review, our regulations require you to publish a "Preliminary Notice of Possible Impact". The notice must be published in a newspaper of general circulation and in any local or community newspaper in your proposal's vicinity. You could satisfy the newspaper of general circulation and the requirement of a local or community newspaper if you use a widely circulated local paper.

The notice must be published in easily readable type in the non-classified section for three (3) consecutive days if in a daily paper or two (2) consecutive issues if other than a daily paper. An individual copy of the notice must also be sent to agencies with special environmental expertise and other interested parties.

It is your responsibility to make the necessary arrangements to publish and distribute the notice. You must provide our office with a copy of the published notice as it appeared, the name(s) of the newspapers in which the notice was published, the dates of publication, an affidavit of publication and a list of all parties receiving an individual copy.

Agencies having special environmental expertise and other interest parties that may be interested in your proposal and any affected landowners in the surrounding area must be notified.

A review and comment period of the proposal will be for thirty (30) days beginning from the last date of publication.

2021 E. College Way • Suite 216 • Mount Vernon, WA 98273-2373  
PH - (360) 428-4322 ext 4 • FAX (360) 424-6172 • TTY (360) 704-7760  
<http://www.rurdev.usda.gov/wa/>

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Rural Development is an Equal Opportunity Lender, Provider, and Employer. Complaints of discrimination should be sent to USDA, Director, Office of Civil Rights, Washington, D. C. 20250-9410

Once published, please provide the requested copies to our office as soon as possible, along with a list of those agencies/individuals that you have provided with a copy of the notice. If you have any questions regarding this letter please don't hesitate to give me a call.

Sincerely,

//s//

Sharon Exley  
United States Department of Agriculture  
Rural Development  
Business Programs Specialist  
2021 E College Way, Suite 216  
Mt. Vernon, WA 98273  
Voice: 360-428-4322 x 159  
TDD: 360-704-7772  
Fax: 360-424-6172

Encl: List of Agencies contacted by USDA  
Preliminary Public Notification

**PUBLIC NOTIFICATION OF POSSIBLE IMPACT  
TO AN IMPORTANT LAND OR CULTURAL RESOURCE**

The U.S. Department of Agriculture, Rural Development is considering an application sponsored by Rainier Biogas. The proposal is to construct a farm based anaerobic digester for processing dairy manure and production of electrical power in King County. The project will be constructed at 43218 208<sup>th</sup> Ave Se, Enumclaw within Township 20, Range 6, Section 20.

If implemented, the proposed action would directly or indirectly convert 4 acres of important farmland. The purpose of this notice is to inform the public of this possible result and to request comments concerning (1) the impacts of the proposed location on important farmland or forestland, (2) alternative sites or actions that would avoid these impacts, and (3) methods that could be used to reduce these impacts.

The proposed action is available for review at the following USDA Rural Development Office: 2021 E. College Way, Suite 216, Mount Vernon, WA 98273. Any person interested in commenting on the proposed action may do so by sending such comments within 30 days following the date of this publication to Sharon Exley, USDA Rural Development, 2021 E. College Way, Suite 216, Mount Vernon, WA 98273.

## Exley, Sharon - Mount Vernon, WA

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**From:** Daryl Maas [daryl@farmpower.com]  
**Sent:** Friday, May 28, 2010 2:30 PM  
**To:** Traxler, Mary - Olympia, WA; Exley, Sharon - Mount Vernon, WA  
**Cc:** 'Kevin Maas'  
**Subject:** public notice  
**Attachments:** courier herald.pdf

Mary and Sharon,

Attached is the public notice for Rainier Biogas that ran in the Enumclaw Courier Herald on 5/19 and 5/26. I've requested an affidavit of publication but they say they can't get it to me until next week.

Daryl Maas  
Farm Power Northwest  
210-527-7631  
farmpower.com

AFFIDAVIT OF PUBLICATION

IN THE MATTER OF  
**PUBLIC NOTIFICATION OF  
POSSIBLE IMPACT TO AN  
IMPORTANT LAND OR CULTURAL  
RESOURCE**

STATE OF WASHINGTON  
COUNTY OF PIERCE SS.

**JENNIFER TRIBBETT** being duly sworn says

that she is the **CHIEF CLERK** of the

**Courier-Herald Newspapers**

And that the Enumclaw Courier Herald and Bonney Lake & Sumner Courier Herald, published in King/ Pierce Counties, have been approved as Legal Newspapers by order of the Superior Court of the State of Washington for King County and Pierce County, and that the Annexed printed copy is a true copy of the **NOTICE** in the above entitled matter as it was printed in the regular entire issue of said paper for a period of **TWO INSERTIONS** commencing on the **19<sup>th</sup>** day of **MAY** 2010 and ending on the **26<sup>th</sup>** day of **MAY** 2010, and that said newspaper was regularly distributed to its subscribers during all of said period, and that said **NOTICE** was published in said newspaper and not in supplement form. That the full amount of the fee charged for said foregoing publication is the sum of **\$117.00** which amount has been billed in full at the rate of **\$9.85** per inch for the first insertion and **\$9.85** per inch for each subsequent insertion.

*Jennifer Tribbett*  
Subscribed and sworn to before me this **26<sup>th</sup>** day of **MAY**, 2010.

*[Signature]*  
Notary Public for the State of Washington,  
residing in Pierce County

Commission expires 7/25/10

**PUBLIC NOTIFICATION OF POSSIBLE IMPACT TO AN IMPORTANT LAND OR CULTURAL RESOURCE**  
The U.S. Department of  
Agriculture, Rural Development is considering an application sponsored by Rainier Biogas. The proposal is to construct a farm-based anaerobic digester for processing dairy manure and production of electrical power in King County. The project will be constructed at 43215 208th Ave Se, Enumclaw within Township 20, Range 6, Section 20. If implemented, the proposed action would directly or indirectly convert up to 4 acres of important farmland. The purpose of this notice is to inform the public of this possible result and to request comments concerning (1) the impacts of the proposed location on important farmland or forestland; (2) alternative sites or actions that would avoid these impacts; and (3) methods that could be used to reduce these impacts. The proposed action is available for review at the following USDA Rural Development Office: 2021 E. College Way, Suite 216, Mount Vernon, WA 98273. Any person interested in commenting on the proposed action may do so by sending such comments within 30 days following this date of this publication to Sharon Exley, USDA Rural Development, 2021 E. College Way, Suite 216, Mount Vernon, WA 98273. 6/19/2

**PUBLIC NOTIFICATION OF POSSIBLE IMPACT TO AN IMPORTANT LAND OR CULTURAL RESOURCE**

The U.S. Department of Agriculture, Rural Development is considering an application sponsored by Rainier Biogas. The proposal is to construct a farm based anaerobic digester for processing dairy manure and production of electrical power in King County. The project will be constructed at 43218 208th Ave Se, Enumclaw within Township 20, Range 6, Section 20.

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The proposed action is available for review at the following USDA Rural Development Office:  
2021 E. College Way,  
Suite 216, Mount Vernon, WA 98273.

Any person interested in commenting on the proposed action may do so by sending such comments within 30 days following the date of this publication to Sharon Exley, USDA Rural Development, 2021 E. College Way, Suite 216, Mount Vernon, WA 98273. 5/19/2.

## Exley, Sharon - Mount Vernon, WA

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**From:** Daryl Maas [daryl@farmpower.com]  
**Sent:** Friday, May 14, 2010 12:18 PM  
**To:** Exley, Sharon - Mount Vernon, WA  
**Cc:** 'Kevin Maas'  
**Subject:** RE: Required public notice  
**Attachments:** NEPA Contact List.docx

Sharon,

I've ordered the newspaper postings in the Enumclaw Courier Herald, and also have mailed notices to all the addresses in the attached (modified) mailing list.

Daryl Maas  
Farm Power Northwest  
210-527-7631  
farmpower.com

---

**From:** Exley, Sharon - Mount Vernon, WA [mailto:Sharon.Exley@wa.usda.gov]  
**Sent:** Friday, May 14, 2010 7:31 AM  
**To:** Daryl Maas  
**Cc:** Kevin Maas  
**Subject:** Required public notice

Has to run 30 days, timing is critical. Can you post immediately??

Sharon Exley, Business Programs Specialist  
Rural Development  
U.S. Department of Agriculture  
2021 E College Way, Suite 216, Mt. Vernon, WA 98273  
Voice: 360-428-4322 x 159, TDD: 360-704-7772 , Fax: 360-424-6172

[www.rurdev.usda.gov/wa](http://www.rurdev.usda.gov/wa)

"Committed to the future of rural communities" "Estamos dedicados al futuro de las comunidades rurales"

The Honorable Joe Mullen, Chairman  
Snoqualmie Tribe  
P O Box 969  
Snoqualmie, WA 98065

Ms. Karen Suyama, Director/ Cultural Resources  
Snoqualmie Tribe  
P O Box 969  
Snoqualmie, WA 98065

The Honorable Jeanne Jerred, Chairwoman  
Confederated Tribes of the Colville Reservation  
P O Box 150  
Nespelem, WA 99155

The Honorable Charlotte Williams, Chairwoman  
Muckleshoot Tribe  
39015 172<sup>nd</sup> Ave. SE  
Auburn, WA 98092

The Honorable Ralph Sampson, Chairman  
Yakama Nation  
P O Box 151  
Toppenish, WA 98948

Mr. Johnson Meninick, Cultural Resources  
Yakama Nation  
P O Box 151  
Toppenish, WA 98948

Ms. Christine Reichgott  
Environmental Review & Sediment Management Unit  
Environmental Protection Agency, Region X  
1200 Sixth Avenue, Suite 900 MS ETPA-088  
Seattle, WA 98101

Ms. Zelma Zieman  
Governor's Office of Regulatory Assistance  
3190 160<sup>th</sup> Ave SE  
Bellevue, WA 98008-5452

Mr. Gerald Shervey  
Regional Hydrogeologist  
Water Quality Program  
Department of Ecology  
Northwest Regional Office  
3190 - 160th Ave. SE  
Bellevue, WA 98008-5452

Ms. Kara J. Steward  
Washington State Department of Ecology  
Waste 2 Resources Program  
PO Box 47600  
Olympia, WA 98504-7600

Mr. Rob Whitlam  
State Historic Preservation Officer  
Department of Archaeology and Historic Preservation  
1063 South Capital Way, Suite 106  
PO Box 48343  
Olympia, WA 98504-8343

Claude Williams  
Engineer  
Puget Sound Air Agency  
1904 Third Avenue, Suite 105  
Seattle, WA 98101

Ms. Nora Mena  
Washington State Department of Agriculture  
Dairy Nutrient Program  
P O Box 42560  
Olympia, WA 98504-2560

Mr. John Gamon  
Department of Natural Resources  
P O Box 47014  
Olympia, WA 98504-7014

Mr. David Brock  
Department of Fish and Wildlife  
Region 4 Habitat Program Manager  
16018 Mill Creed Blvd.  
Mill Creek, WA 98012

Mr. Rick Reinlasoder  
Livestock Program Specialist  
King County DNR  
201 S. Jackson St, Suite 700  
Seattle, WA 98104

Ms. Christie True  
Wastewater Treatment  
King County  
201 S. Jackson St, Suite 700  
Seattle, WA 98104

Mr. Mark Isaacson  
Water Land Resources  
King County  
201 S. Jackson St, Suite 700  
Seattle, WA 98104

Mary Beth Lang  
Washington State Department of Agriculture  
Bioenergy Coordinator  
P O Box 42560  
Olympia, WA 98504-2560