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STATE WASTE DISCHARGE PERMIT NUMBER ST 8084

STATE OF WASHINGTON  
DEPARTMENT OF ECOLOGY  
Eastern Regional Office

In compliance with the provisions of the  
State of Washington Water Pollution Control Law  
Chapter 90.48 Revised Code of Washington, as amended,  
authorizes

Stevens County PUD No. 1  
(Addy/Blue Creek Service Areas)

P.O. Box 592

Loon Lake, WA 99148-0529

to discharge wastewater in accordance with the special and general conditions which follow.

<u>Plant Location:</u> Adjacent to US Highway 395; one mile south of the Town of Addy (Stevens Co.)	<u>Discharge Location:</u> SE ¼ of the SE ¼ of Sec. 24, T. 33N, R. 39 EWM
<u>Treatment Type:</u> Aerated/facultative lagoons; spray irrigation	Latitude: 48° 20' 60" N Longitude: 117° 50' 00" W

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### SUMMARY OF PERMIT REPORT SUBMITTALS

Refer to the Special and General Conditions of this permit for additional submittal requirements.

<b>Permit Section</b>	<b>Submittal</b>	<b>Frequency</b>	<b>First Submittal Date</b>
S2.G	Flow Meter Calibration	1/permit cycle	January 1, 2010
S3.A.	Discharge Monitoring Report	Monthly	August 15, 2008
S4.C.	Wasteload Assessment	1/year	March 15, 2009
S7.D	Sewer Ordinance	1/permit cycle	October 1, 2008
S8.	Application for permit renewal	1/permit cycle	February 1, 2013
S9.A	Ground Water Quality Evaluation - Scope of Work	1/permit cycle	March 15, 2009
S9.B	Ground Water Quality Evaluation – Final Study Report	1/permit cycle	March 15, 2010
S10.	Irrigation and Crop Management Plan	1/year	April 15, 2009

## SPECIAL CONDITIONS

### S1. DISCHARGE LIMITATIONS

All discharges and activities authorized by this permit shall be consistent with the terms and conditions of this permit. The discharge of any of the following pollutants more frequently than, or at a concentration in excess of, that authorized by this permit shall constitute a violation of the terms and conditions of this permit.

Beginning on the effective date and lasting through the expiration date of this permit, the Permittee is authorized to apply wastewater to land via spray irrigation not to exceed agronomic rates for nitrogen and water, and at rates for other wastewater constituents that are protective of the background ground water quality. Wastewater loading to the treatment facility and to the sprayfield shall not exceed the design criteria specified in Condition S4.

The Permittee is authorized to apply wastewater for final treatment on the following designated irrigation lands:

Approximately 13 acres located along US Highway 395 approximately one mile south of the Town of Addy; SE¼ of the SE ¼ Section 24, T. 33N, R. 39 EWM.

Total nitrogen and water applied to the irrigation lands shall not exceed the crop requirements as determined by the Permittee's Irrigation and Crop Management Plan, Condition S10. Discharges shall be subject to the following limitations:

<b>EFFLUENT LIMITATIONS</b>		
<b>Parameter</b>	<b>Average Monthly <sup>a</sup></b>	<b>Maximum Daily <sup>b</sup></b>
Influent Flow	29,600 gpd	72,600 gpd
	<b>Average Monthly <sup>a</sup></b>	<b>Average Weekly <sup>c</sup></b>
BOD <sub>5</sub>	45 mg/L; 65% removal of influent BOD	65 mg/L
TSS	45 mg/L	65 mg/L
pH	Shall be $\geq 6$ and $\leq 9$ standard units	
<sup>a</sup> The average monthly effluent limitation is defined as the highest allowable average of daily discharges over a calendar month, calculated as the sum of all daily discharges measured during a calendar month divided by the number of daily discharges measured during that month.		
<sup>b</sup> The maximum daily effluent limitation is defined as the highest allowable daily discharge measured during a calendar day.		

<sup>c</sup> Average weekly is defined as the highest allowable average of daily discharges over a calendar week, calculated as the sum of all daily discharges measured during a calendar week divided by the number of daily discharges measured during that week.

## S2. MONITORING REQUIREMENTS

### A. Wastewater Monitoring

The sampling point for the influent will be at the influent flow meter sampling valve in the shop/control building

The sampling point for the effluent will be at the sampling valve on the end of the pipe prior to discharging to the sprayfield.

The Permittee shall monitor the wastewater according to the following schedule:

Parameter	Units	Sample Point	Sampling Frequency	Sample Type
Flow (avg monthly; max daily; total annual)	gpd gpd; gallons	Influent Effluent	Continuous <sup>1</sup> Continuous <sup>1</sup>	Meter Meter
BOD <sub>5</sub>	mg/L; lbs/day lbs/day; mg/L; % removal	Influent Effluent	6/year <sup>2</sup> 1/month	8hr manual composite <sup>3</sup> Grab
TSS	mg/L; lbs/day mg/L	Influent Effluent	6/year <sup>2</sup> 1/month	8hr manual composite <sup>3</sup> Grab
Fixed Dissolved Solids	mg/L; lbs/day	Effluent	1/month	8hr manual composite <sup>3</sup>
pH	Standard Units Standard Units	Influent Effluent	6/year <sup>2</sup> 1/month	Grab Grab
Ammonia (as N)	mg/L; lbs/day mg/L; lbs/day	Influent Effluent	6/year <sup>2</sup> 1/month	8hr manual composite <sup>3</sup> Grab
TKN (as N)	mg/L; lbs/day mg/L; lbs/day	Influent Effluent	6/year <sup>2</sup> 1/month	8hr manual composite <sup>3</sup> Grab

<sup>1</sup> Continuous means uninterrupted except for brief lengths of time for calibration, for power failure, or for unanticipated equipment repair or maintenance. Sampling shall be taken hourly when continuous monitoring is not possible.

<sup>2</sup> 6/year means: February, April, June, August, October, and December.

<sup>3</sup> The 8hr composite sample shall be composed of samples collected every two hours over an eight hour period.

**B. Effluent Wastewater Monitoring – 3/year**

The Permittee shall monitor the effluent wastewater four times a year according to the following schedule:

<b>Parameter</b>	<b>Units</b>	<b>Sample Point</b>	<b>Sampling Frequency</b>	<b>Sample Type</b>
Sodium	mg/L	Effluent	3/year <sup>1</sup>	Grab
Calcium	mg/L	Effluent	3/year <sup>1</sup>	Grab
Magnesium	mg/L	Effluent	3/year <sup>1</sup>	Grab
Total Phosphorus	mg/L	Effluent	3/year <sup>1</sup>	Grab
Potassium	mg/L	Effluent	3/year <sup>1</sup>	Grab
Sulfate (as S)	mg/L	Effluent	3/year <sup>1</sup>	Grab
Chloride	mg/L	Effluent	3/year <sup>1</sup>	Grab
Alkalinity	mg/L	Effluent	3/year <sup>1</sup>	Grab

<sup>1</sup> 3/year means: June, July, and August.

**C. Ground Water Monitoring**

The sampling points for ground water will be at AEH491, 494, 495, and 500.

The Permittee shall monitor the ground water according to the following schedule:

<b>Parameter</b>	<b>Units</b>	<b>Sampling Frequency</b>	<b>Sample Type</b>
pH	s.u.	4/year <sup>1</sup>	Grab
Total Coliform	CPU/100 mL	4/year <sup>1</sup>	Grab
Water Depth	To the nearest 0.1 ft	4/year <sup>1</sup>	Grab
Conductivity	umhos/cm	4/year <sup>1</sup>	Grab
Total Dissolved Solids	mg/L	4/year <sup>1</sup>	Grab
Nitrate (as N)	mg/L	4/year <sup>1</sup>	Grab

<sup>1</sup> 4/year means: February, May, August, and November.

**D. Soil Monitoring**

**1. Semi-Annual Monitoring**

The Permittee shall perform soil monitoring on the irrigation lands twice per year. Separate composite depth samples shall be collected from each of two separate sites. These sites shall be located so as to be as near as possible to the test hole #1 and #2 sites that are described in the 2001 Irrigation and Crop Plan for the site.

Testing at each sampling site shall be done at soil depth increments that are the same as those given for test holes #1 and #2. Results shall be submitted annually with the annual Irrigation and Crop Management Plan; Section S10.

Composite samples for each depth shall be from a minimum of four (4) cores. Samples will be collected at a time that best represents soil conditions at the beginning and end of the crop growing season.

The Permittee shall monitor the soils in the center pivot sprayfield according to the following schedule.

<b>Parameter</b>	<b>Units</b>	<b>Sample Point</b>	<b>Depth Increments<sup>1</sup></b>
Exchangeable sodium percentage	%	Test hole #1 Test hole #2	See footnote See footnote
Cation exchange capacity	meq/100g	Test hole #1 Test hole #2	See footnote See footnote
Organic matter	%	Test hole #1 Test hole #2	See footnote See footnote
TKN (as N)	%	Test hole #1 Test hole #2	See footnote See footnote
NO <sub>3</sub> (as N)	ppm	Test hole #1 Test hole #2	See footnote See footnote
NH <sub>3</sub> (as N)	ppm	Test hole #1 Test hole #2	See footnote See footnote
Total-P (as P)	ppm	Test hole #1 Test hole #2	See footnote See footnote
Soluble Salts	mmhos/cm	Test hole #1 Test hole #2	See footnote See footnote
Sodium	meq/100g	Test hole #1 Test hole #2	See footnote See footnote
Calcium	meq/100g	Test hole #1 Test hole #2	See footnote See footnote

Parameter	Units	Sample Point	Depth Increments <sup>1</sup>
Magnesium	meq/100g	Test hole #1 Test hole #2	See footnote See footnote
Potassium	ppm	Test hole #1 Test hole #2	See footnote See footnote
Sulfate (as S)	ppm	Test hole #1 Test hole #2	See footnote See footnote
Iron	ppm	Test hole #1 Test hole #2	See footnote See footnote
pH	s.u.	Test hole #1 Test hole #2	See footnote See footnote
<sup>1</sup> Depth for composite samples:			
Test hole #1:	0-6" 6-24" 29-45" 45-60"	Test hole #2:	0-8" 8-18" 38-52"

E. Crop Monitoring

The Permittee shall perform crop monitoring on the sprayfield once per harvest. A composite sample shall be collected and be comprised of at least ten (10) random samples.

Values shall be reported in the annual Irrigation and Crop Plan; Section S10.

Parameter	Units
Crop production	dry tons/ac
Moisture content	%
Total Kjeldahl Nitrogen	%
NO <sub>3</sub> (as N)	mg/Kg (dry wt)
Total-P (as P)	mg/Kg (dry wt)
Ash weight	mg/Kg (dry wt)

F. Sampling and Analytical Procedures

Samples and measurements taken to meet the requirements of this permit shall be representative of the volume and nature of the monitored parameters, including representative sampling of any unusual discharge or discharge condition, including bypasses, upsets and maintenance-related conditions affecting effluent quality.

Ground water sampling shall conform to the latest protocols in the *Implementation Guidance for the Ground Water Quality Standards*, (Ecology 2001).

Sampling and analytical methods used to meet the water and wastewater monitoring requirements specified in this permit shall conform to the latest revision of the *Guidelines Establishing Test Procedures for the Analysis of Pollutants* contained in 40 CFR Part 136 or to the latest revision of *Standard Methods for the Examination of Water and Wastewater* (APHA), unless otherwise specified in this permit or approved in writing by the Department of Ecology (Department).

All soil analysis and reporting will be in accordance with *Laboratory Procedures*, Soil Testing Laboratory, Washington State University, November 1981, or the most recent widely accepted equivalent.

G. Flow Measurement

Appropriate flow measurement devices and methods consistent with accepted scientific practices shall be selected and used to ensure the accuracy and reliability of measurements of the quantity of monitored flows. The devices shall be installed, calibrated, and maintained to ensure that the accuracy of the measurements is consistent with the accepted industry standard for that type of device. Frequency of calibration shall be in conformance with manufacturer's recommendations and at a minimum frequency of at least one calibration per permit cycle.

No later than January 1, 2010, the Permittee shall inform the Department, in writing, that the calibration has been completed. A copy of the calibration report shall also be submitted.

Calibration records shall be maintained for at least three years.

H. Laboratory Accreditation

All monitoring data required by the Department shall be prepared by a laboratory registered or accredited under the provisions of, *Accreditation of Environmental Laboratories*, Chapter 173-50 WAC. Flow, temperature, conductivity, pH, and internal process control parameters are exempt from this requirement.

Conductivity and pH shall be accredited if the laboratory must otherwise be registered or accredited.

Crops and soils testing have not been included in the accreditation program. Crop and soil data shall be provided by a reputable agricultural test lab that is an active participant in a nationally recognized agricultural laboratory proficiency testing program.

### S3. REPORTING AND RECORDKEEPING REQUIREMENTS

The Permittee shall monitor and report in accordance with the following conditions. The falsification of information submitted to the Department shall constitute a violation of the terms and conditions of this permit.

#### A. Reporting

The first monitoring period begins on the effective date of the permit. Monitoring results shall be submitted monthly. Monitoring data obtained during the previous month shall be summarized and reported on a form provided, or otherwise approved, by the Department, and be postmarked or received no later than the 15th day of the month following the completed reporting period, unless otherwise specified in this permit. The report shall be sent to: Water Quality Permit Coordinator, the Department of Ecology, 4601 N. Monroe St., Spokane, Washington 99205-1295.

Discharge Monitoring Report forms must be submitted monthly whether or not the facility was discharging. If there was no discharge or the facility was not operating during a given monitoring period, submit the form as required with the words "No Discharge" entered in place of the monitoring results.

#### B. Records Retention

The Permittee shall retain records of all monitoring information for a minimum of three years. Such information shall include all calibration and maintenance records and all original recordings for continuous monitoring instrumentation, copies of all reports required by this permit, and records of all data used to complete the application for this permit. This period of retention shall be extended during the course of any unresolved litigation regarding the discharge of pollutants by the Permittee or when requested by the Director.

#### C. Recording of Results

For each measurement or sample taken, the Permittee shall record the following information: (1) the date, exact place and time of sampling; (2) the individual who performed the sampling or measurement; (3) the dates the analyses were performed; (4) who performed the analyses; (5) the analytical techniques or methods used; and (6) the results of all analyses.

#### D. Additional Monitoring by the Permittee

If the Permittee monitors any pollutant more frequently than required by this permit using test procedures specified by Condition S2 of this permit, then the results of this monitoring shall be included in calculation and reporting of the data submitted in the Permittee's self-monitoring reports.

E. Noncompliance Notification

In the event the Permittee is unable to comply with any of the permit terms and conditions due to any cause, the Permittee shall:

1. Immediately take action to stop, contain, and cleanup unauthorized discharges or otherwise stop the violation, and correct the problem;
2. Repeat sampling (within 48 hours) and analysis of any violation and submit the results to the Department within 30 days after becoming aware of the violation;
3. Immediately notify the Department of the failure to comply \*; and
4. Submit a detailed written report to the Department within thirty days, unless requested earlier by the Department, describing the nature of the violation, corrective action taken and/or planned, steps to be taken to prevent a recurrence, results of the resampling, and any other pertinent information.

Compliance with these requirements does not relieve the Permittee from responsibility to maintain continuous compliance with the terms and conditions of this permit or the resulting liability for failure to comply.

(\* Immediately notify means within 24 hours for any spill, overflow, bypass from any portion of the collection or treatment system or any condition that endangers human health or the environment. Immediately means 30 days for any other condition.)

F. Maintaining a Copy of This Permit

A copy of this permit shall be kept at the treatment plant and be made available to the public or Ecology inspectors.

**S4. FACILITY LOADING**

A. Design Criteria

Flows or waste loadings of the following design criteria for the permitted treatment facility shall not be exceeded:

BOD <sub>5</sub> influent loading for maximum month:	44 lbs/day
TSS influent loading for maximum month:	10 lbs/day
Total influent nitrogen loading for max. month:	18.5 lbs/day
Total nitrogen load to the sprayfield:	152 lbs/acre

**B. Plans for Maintaining Adequate Capacity**

When the actual flow or wasteload reaches 85 percent of any one of the design criteria in S4.A for three consecutive months, or when the projected increases would reach design capacity within five years, whichever occurs first, the Permittee shall submit to the Department, a plan and a schedule for continuing to maintain capacity at the facility sufficient to achieve the effluent limitations and other conditions of this permit. This plan shall address any of the following actions or any others necessary to meet this objective.

1. Analysis of the present design including the introduction of any process modifications that would establish the ability of the existing facility to achieve the effluent limits and other requirements of this permit at specific levels in excess of the existing design criteria specified in paragraph A above.
2. Reduction or elimination of excessive infiltration and inflow of uncontaminated ground and surface water into the sewer system.
3. Limitation on future sewer extensions or connections or additional wasteloads.
4. Modification or expansion of facilities necessary to accommodate increased flow or wasteload.
5. Reduction of industrial or commercial flows or waste loads to allow for increasing sanitary flow or wasteload.

Engineering documents associated with the plan must meet the requirements of WAC 173-240-060, "Engineering Report," and be approved by the Department prior to any construction. The plan shall specify any contracts, ordinances, methods for financing, or other arrangements necessary to achieve this objective.

**C. Wasteload Assessment**

The Permittee shall conduct an annual assessment of their flow and waste load and submit a report to the Department by March 15, 2009, and annually thereafter.

The report shall contain the following: an indication of compliance or noncompliance with the permit effluent limitations; a comparison between the existing and design monthly average dry weather and wet weather flows, peak flows, BOD, and total suspended solids loadings; and (except for the first report) the percentage increase in these parameters since the last annual report. The report shall also state the present and design population or population equivalent, projected population growth rate, and the estimated date upon which the design capacity is projected to be reached, according to the most restrictive of the parameters above. The interval for review and reporting may be modified if the Department determines that a different frequency is sufficient.

## S5. OPERATION AND MAINTENANCE

The Permittee shall at all times be responsible for the proper operation and maintenance of any facilities or systems of control installed to achieve compliance with the terms and conditions of the permit.

### A. Certified Operator

An operator certified for at least a Class I plant by the State of Washington shall be in responsible charge of the day-to-day operation of the wastewater treatment plant. An operator certified for at least a Class I plant shall be in charge during all regularly scheduled shifts.

### B. O & M Program

The Permittee shall institute an adequate operation and maintenance program for their entire sewage system. Maintenance records shall be maintained on all major electrical and mechanical components of the treatment plant, as well as the sewage system and pumping stations. Such records shall clearly specify the frequency and type of maintenance recommended by the manufacturer and shall show the frequency and type of maintenance performed. These maintenance records shall be available for inspection at all times.

### C. Short-term Reduction

If a Permittee contemplates a reduction in the level of treatment that would cause a violation of permit discharge limitations on a short-term basis for any reason, and such reduction cannot be avoided, the Permittee shall give written notification to the Department, if possible, 30 days prior to such activities, detailing the reasons for, length of time of, and the potential effects of the reduced level of treatment. This notification does not relieve the Permittee of their obligations under this permit.

### D. Electrical Power Failure

The Permittee is responsible for maintaining adequate safeguards to prevent the discharge of untreated wastes or wastes not treated in accordance with the requirements of this permit during electrical power failure at the treatment plant and/or sewage lift stations either by means of alternate power sources, standby generator, or retention of inadequately treated wastes. The Permittee shall maintain Reliability Class I (EPA 430-99-74-001; Ecology's Criteria for Sewage Works Design) at the wastewater treatment plant which requires aeration.

### E. Prevent Connection of Inflow

The Permittee shall strictly enforce their sewer ordinances and not allow the connection of inflow (roof drains, foundation drains, etc.) to the sanitary sewer system.

F. Bypass Procedures

The Permittee shall immediately notify the Department of any spill, overflow, or bypass from any portion of the collection or treatment system according to S3.E.

The bypass of wastes from any portion of the collection or treatment system is prohibited unless one of the following conditions (1, 2, or 3) applies:

1. Unavoidable Bypass -- Bypass is unavoidable to prevent loss of life, personal injury, or severe property damage. "Severe property damage" means substantial physical damage to property, damage to the treatment facilities which would cause them to become inoperable, or substantial and permanent loss of natural resources which can reasonably be expected to occur in the absence of a bypass.

If the resulting bypass from any portion of the treatment system results in noncompliance with this permit the Permittee shall notify the Department in accordance with condition S3.E "Noncompliance Notification".

2. Anticipated Bypass That Has the Potential to Violate Permit Limits or Conditions -- Bypass is authorized by an administrative order issued by the Department. The Permittee shall notify the Department at least 30 days before the planned date of bypass. The notice shall contain a description of the bypass and its cause; the duration of the bypass, including exact dates and times; and steps taken or planned to reduce, eliminate, and prevent reoccurrence of the bypass. The Department will consider the following prior to issuing an administrative order:
  - a. If the bypass is necessary to perform construction or maintenance-related activities essential to meet the requirements of the permit.
  - b. If there are feasible alternatives to bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, maintenance during normal periods of equipment down time, or transport of untreated wastes to another treatment facility.
  - c. If the bypass is planned and scheduled to minimize adverse effects on the public and the environment.

After consideration of the above and the adverse effects of the proposed bypass and any other relevant factors, the Department will approve or deny the request. The public shall be notified and given an opportunity to comment on bypass incidents of significant duration, to the extent feasible. Approval of a request to bypass will be by administrative order issued by the Department under RCW 90.48.120.

3. Bypass For Essential Maintenance Without the Potential to Cause Violation of Permit Limits or Conditions - Bypass is authorized if it is for essential maintenance and does not have the potential to cause violations of limitations or other conditions of the permit, or adversely impact public health as determined by the Department prior to the bypass.

G. Operations and Maintenance Manual

The O&M Manual shall be reviewed by the Permittee at least annually. All manual changes or updates shall be submitted to the Department whenever they are incorporated into the manual. The approved operation and maintenance manual shall be kept available at the treatment plant. The operation and maintenance manual shall contain the treatment plant process control monitoring schedule. All operators shall follow the instructions and procedures of this manual.

H. Irrigation Land Application

1. The system shall be operated so as to protect the existing and future beneficial uses of the ground water and not cause a violation of the ground water standards.
2. There shall be no runoff of wastewater applied to land by spray irrigation to any surface waters of the state or to any land not owned by or under control of the Permittee.
3. The Permittee shall use recognized good practices, and all available and reasonable procedures to control odors from the land application system. When notified by the Department, the Permittee shall implement measures to reduce odors to a reasonable minimum.
4. The wastewater shall not be applied to the irrigation lands in quantities that:
  - a. Significantly reduce or destroy the long-term infiltration rate of the soil.
  - b. Cause long-term anaerobic conditions in the soil.
  - c. Cause ponding of wastewater and produce objectionable odors or support insects or vectors.
  - d. Cause leaching losses of constituents of concern beyond the treatment zone or in excess of the approved design. Constituents of concern are constituents in the wastewater, partial decomposition products, or soil constituents that would alter ground water quality in amounts that would affect current and future beneficial uses.

5. The Permittee shall maintain all irrigation agreements for lands not owned for the duration of the permit cycle. Any reduction in irrigation lands by termination of any irrigation agreements may result in permit modification or revocation. The Permittee shall immediately inform the Department in writing of any proposed changes to existing agreements.

I. Best Management Practices\Pollution Prevention Program

1. The irrigation management of the sprayfields shall be done in a manner such that the leaching fraction is equal to or less than the leaching requirement.
2. Every effort shall be made to perform leaching only when necessary, only during the winter, and use only precipitation and fresh water and not wastewater to meet the leaching requirement.

**S6. RESIDUAL SOLIDS**

Residual solids include septic tank effluent pumping (STEP) tank sludge, lagoon sludge and other solid waste. The Permittee shall store and handle all residual solids in such a manner so as to prevent their entry into state ground or surface waters. The Permittee shall not discharge leachate from residual solids to state surface or ground waters.

**S7. PRETREATMENT**

The Permittee shall work cooperatively with the Department to ensure that all commercial and industrial users of the wastewater treatment system are in compliance with pretreatment regulations.

A. Discharge Authorization Required

Significant commercial or industrial operations shall not be allowed to discharge wastes to the Permittee's sewerage system until they have received prior authorization from the Department in accordance with Chapter 90.48 RCW and Chapter 173-216 WAC, as amended. The Permittee shall immediately notify the Department of any proposed new sources of wastewater from significant commercial or industrial operations.

B. Prohibitions

A non-domestic discharger may not introduce into the Permittee's sewerage system any pollutant(s) that cause pass through or interference.

The following non-domestic discharges shall not be discharged into the Permittee's sewerage system.

1. Pollutants that create a fire or explosion hazard in the domestic wastewater facilities (including, but not limited to waste streams with a closed cup flashpoint of less than 140 degrees Fahrenheit or 60 degrees Centigrade using the test methods specified in 40 CFR 261.21).
2. Pollutants that will cause corrosive structural damage to the domestic wastewater facilities, but in no case discharges with pH lower than 5.0 standard units or greater than 11.0 standard units, unless the works are specifically designed to accommodate such discharges.
3. Solid or viscous pollutants in amounts that could cause obstruction to the flow in sewers or otherwise interfere with the operation of the POTW.
4. Any pollutant, including oxygen demanding pollutants, (BOD, etc.) released in a discharge at a flow rate and/or pollutant concentration which will cause interference with the POTW.
5. Heat in amounts that will inhibit biological activity in the POTW resulting in interference, but in no case heat in such quantities such that the temperature at the POTW exceeds 40°C (104°F) unless the Department, upon request of the Permittee, approves, in writing, alternate temperature limits.
6. Petroleum oil, non-biodegradable cutting oil, or products of mineral origin in amounts that will cause interference or pass through.
7. Pollutants which result in the presence of toxic gases, vapors, or fumes within the POTW in a quantity which may cause acute worker health and safety problems.
8. Any trucked or hauled pollutants, except at discharge points designated by the Permittee.
9. As provided by WAC 173-303-071(3)(a), discharges of dangerous wastes into the sewerage system by industrial or commercial users are prohibited unless the discharger has submitted an application for a State Waste Discharge Permit. The applicant must accurately describe the wastewater on a State Waste Discharge Permit Application for Industrial Discharges to a POTW (Ecology Form 040-177).
10. Noncontact cooling water in significant volumes.
11. Stormwater, and other direct inflow sources.
12. Wastewaters significantly affecting system hydraulic loading, which do not require treatment or would not be afforded a significant degree of treatment by the system.

C. Notification of Industrial User Violations

The Permittee shall notify the Department if any non-domestic user violates the prohibitions listed in S7.B above.

D. Local Sewer Ordinance

No later than October 1, 2008, The Permittee shall submit to the Department a sewer ordinance for both Addy and Blue Creek. The ordinance shall include, at a minimum, the prohibited discharges given in Chapter 173-216 WAC as included in Section S7.B above.

**S8. DUTY TO REAPPLY**

The Permittee must apply for permit renewal least 180 days before the expiration of the permit.

**S9. GROUND WATER QUALITY EVALUATION (HYDROGEOLOGIC STUDY)**

The Permittee shall evaluate the impacts of its activities on ground water quality by completing the elements below to include: a scope of work for a ground water quality evaluation study, a ground water quality evaluation study, a report of study results, and ongoing monitoring.

- A. No later than March 15, 2009, the Permittee shall submit to the Department a scope of work for a ground water quality evaluation study at the wastewater application site, in accordance with WAC 173-200-080. The scope of work will conform to *Guidelines for Preparation of Engineering Reports for Industrial Wastewater Land Application Systems*, Ecology 1993.
- B. Upon approval of the scope of work by the Department, the Permittee shall conduct a study to determine site specific hydrogeologic conditions, appropriate well siting, sampling quality control protocols, a sampling plan and sampling protocols. The report shall also include:
1. Identification of the up- and downgradient wells
  2. The elevations of the existing monitoring well casings and any new well casing to the nearest 0.01ft above mean sea level.
  3. Recommendations for the addition and placement of new monitoring wells.
  4. A determination of the hydraulic connectivity between the ground water beneath the sprayfield and the drainage ditch along the western boundary of the site.
  5. A determination of the source of high nitrate concentrations in the existing wells located along the western periphery of the sprayfield relative to the well located along the eastern boundary.

6. Recommendations to changes in the ground water testing schedule or parameter list.

The Permittee shall submit a final report of the results no later than March 15, 2010.

## **S10. IRRIGATION AND CROP MANAGEMENT PLAN**

An Irrigation and Crop Management Plan shall be submitted annually by April 15<sup>th</sup> for Department review. The plan shall generally conform with *Guidelines for Preparation of Engineering Reports for Industrial Wastewater Land Application Systems*, Ecology 1993. The plan must be prepared by a soil scientist. The plan shall include the following elements:

### **A. Annual Summary of Farm Operations for the Previous Year**

This summary shall include:

1. For each crop grown, the total acreage and quantity harvested.
2. Calculated balances for nitrogen, salts, or other design limiting parameters. The calculations shall include crop consumptive use, wastewater loadings of nutrients, salts, or other design limiting parameters, and contributions from commercial fertilizers applied.
  - a. The nitrogen and salt load values will be compared to the estimated load values for these parameters in the previous year's plan report.
3. Organic load: The BOD load to the field shall be determined for each month on a 'lb/acre' and 'lb/acre/day' basis. The values shall be compared to the estimated load value given in the previous year's plan report.
4. Calculated water balance: The calculations shall include irrigation system efficiency and application uniformity, the quantity of supplemental irrigation water and wastewater applied, crop consumptive use, water stored in the soil profile outside the normal growing season, and salt leaching requirements.
  - a. The leaching fraction will be computed and compared to the leaching requirement for the site.
  - b. The hydraulic load to the sprayfield shall be compared to the estimated load value given in the previous year's plan report.
5. Freshwater monitoring: The volume of freshwater applied to the field and the results of the freshwater monitoring (Section S2) shall be reported

6. Ground water monitoring: A comparison will be made of the quarterly nitrate and TDS values measured at AEH491, 495, and 500 to the estimated background values of 6.94 mg/L and 570 mg/L, respectively.
7. Soil testing results: A summary of the soil testing results shall be submitted and discussed as part of the annual plan.

The values for each composite depth at both sample locations shall be compared to the baseline values given in the 2001 Irrigation and Crop Plan for the site. All past year's soil data for this permit cycle shall also be presented.

8. Crop testing results: A summary of the crop testing results shall be submitted and discussed as part of the plan.

B. Cropping Schedule for Upcoming Year

This schedule shall include:

1. Crop Management: The proposed acreage for each crop, cultivation and harvesting requirements, expected crop yields, and methods for establishing a crop, and proposed schedule for herbicide, pesticide, and fertilizer application.
2. Irrigation Management: The frequency and timing of wastewater and supplemental irrigation water application (including harvest and non-harvest periods), and recommended rest cycles for wastewater application where organic or hydraulic loading is a concern.

The discussion of the proposed irrigation management shall include an estimation of the leaching requirement for the sprayfield and the plan to meet the requirement.

3. The estimated annual total net nitrogen and water load, and FDS (fixed dissolved solids) and BOD load to the sprayfield based on the estimated volume of wastewater irrigation and planned crop rotation.

## GENERAL CONDITIONS

### G1. SIGNATORY REQUIREMENTS

All applications, reports, or information submitted to the Department shall be signed as follows:

- A. All permit applications shall be signed by either a principal executive officer or ranking elected official.
- B. All reports required by this permit and other information requested by the Department shall be signed by a person described above or by a duly authorized representative of that person. A person is a duly authorized representative only if:
  - 1. The authorization is made in writing by the person described above and is submitted to the Department at the time of authorization, and
  - 2. The authorization specifies either a named individual or any individual occupying a named position.
- C. Changes to authorization: If an authorization under paragraph B.2 above is no longer accurate because a different individual or position has responsibility for the overall operation of the facility, a new authorization must be submitted to the Department prior to or together with any reports, information, or applications to be signed by an authorized representative.
- D. Certification: Any person signing a document under this section shall make the following certification:

"I certify under penalty of law, that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

### G2. RIGHT OF ENTRY

Representatives of the Department shall have the right to enter at all reasonable times in or upon any property, public or for the purpose of inspecting and investigating conditions relating to the pollution or the possible pollution of any waters of the state. Reasonable times shall include normal business hours; hours during which production, treatment, or discharge occurs; or times when the Department suspects a violation requiring immediate inspection. Representatives of the Department shall be allowed to have access to, and copy at reasonable cost, any records required to be kept under terms and conditions of the permit; to inspect any monitoring equipment or method required in the permit; and to sample the discharge, waste treatment processes, or internal waste streams.

### **G3. PERMIT ACTIONS**

This permit shall be subject to modification, suspension, or termination, in whole or in part by the Department for any of the following causes:

- A. Violation of any permit term or condition;
- B. Obtaining a permit by misrepresentation or failure to disclose all relevant facts;
- C. A material change in quantity or type of waste disposal;
- D. A material change in the condition of the waters of the state; or
- E. Nonpayment of fees assessed pursuant to RCW 90.48.465.

The Department may also modify this permit, including the schedule of compliance or other conditions, if it determines good and valid cause exists, including promulgation or revisions of regulations or new information.

### **G4. REPORTING A CAUSE FOR MODIFICATION**

The Permittee shall submit a new application, or a supplement to the previous application, along with required engineering plans and reports, whenever a new or increased discharge or change in the nature of the discharge is anticipated which is not specifically authorized by this permit. This application shall be submitted at least 60 days prior to any proposed changes. Submission of this application does not relieve the Permittee of the duty to comply with the existing permit until it is modified or reissued.

### **G5. NOTIFICATION OF NEW OR ALTERED SOURCES**

The Permittee shall submit written notice to the Department whenever any new discharge or increase in volume or change in character of an existing discharge into the sewer is proposed which: (1) would interfere with the operation of, or exceed the design capacity of, any portion of the collection or treatment system; (2) would increase the total system flow or influent waste loading by more than 10 percent; (3) is not part of an approved general sewer plan or approved plans and specifications; or would be subject to pretreatment standards under 40 CFR Part 403 and Section 307(b) of the Clean Water Act. This notice shall include an evaluation of the system's ability to adequately transport and treat the added flow and/or wasteload.

### **G6. PLAN REVIEW REQUIRED**

Prior to constructing or modifying any wastewater control facilities, an engineering report and detailed plans and specifications shall be submitted to the Department for approval in accordance with Chapter 173-240 WAC. Engineering reports, plans, and specifications should be submitted at least 180 days prior to the planned start of construction. Facilities shall be constructed and operated in accordance with the approved plans.

**G7. COMPLIANCE WITH OTHER LAWS AND STATUTES**

Nothing in the permit shall be construed as excusing the Permittee from compliance with any applicable federal, state, or local statutes, ordinances, or regulations.

**G8. PAYMENT OF FEES**

The Permittee shall submit payment of fees associated with this permit as assessed by the Department. The Department may revoke this permit if the permit fees established under Chapter 173-224 WAC are not paid.

**G9. PENALTIES FOR VIOLATING PERMIT CONDITIONS**

Any person who is found guilty of willfully violating the terms and conditions of this permit shall be deemed guilty of a crime, and upon conviction thereof shall be punished by a fine of up to ten thousand dollars and costs of prosecution, or by imprisonment in the discretion of the court. Each day upon which a willful violation occurs may be deemed a separate and additional violation.

Any person who violates the terms and conditions of a waste discharge permit shall incur, in addition to any other penalty as provided by law, a civil penalty in the amount of up to ten thousand dollars for every such violation. Each and every such violation shall be a separate and distinct offense, and in case of a continuing violation, every day's continuance shall be deemed to be a separate and distinct violation.