

## Livestock and Water Quality Site Visit



<b>Site Visit Information</b>	<input type="checkbox"/> First Visit	<input checked="" type="checkbox"/> Follow-up Visit
Prepared by: Jessica Kirkpatrick	Arrival Time: 3:00 PM	Departure Time: 3:45 PM
Date: 1/6/2016	Current Weather Conditions: Sunny	

<b>Owner/Operator Information</b>	
Name: Jim Epoch	Street: 2180 Hampton Road
City: Everson	Zip Code: 98247
Phone: 360-815-4393	Email: snowyota@gmail.com

<b>Site Information</b>	
County: Whatcom	Watershed: Lower Nooksack (Kamm Creek)
<p>General site description: Mr. Epoch owns a residential property in the Kamm Creek watershed where he keeps three horses in a confinement area of just under an acre. An unnamed tributary to Kamm Creek runs through the north end of the property, and a confinement area of less than half an acre is on the north side of this stream.</p> <p>Mr. Epoch is in the process of installing heavy use area protection for the confinement area and a manure storage facility that will make it possible to implement his farm plan and manage manure. Construction is expected to begin as soon as conditions are favorable and until that time no corrective actions are expected. A fence was recently installed across the north 1/3 of the property as part of a CREP project that will be finished by the end of this spring.</p>	

### Site Evaluation

<b>Stream Corridor and Areas Near Surface Water</b>	<input checked="" type="checkbox"/> Evaluated	<input type="checkbox"/> Not Evaluated
<input type="checkbox"/> Bare, exposed, eroding soils	<input type="checkbox"/> Absence of woody vegetation	
<input type="checkbox"/> Contaminated run-off (active or potential)	<input type="checkbox"/> Manure accumulations	
<input type="checkbox"/> Slumping stream banks and erosion	<input type="checkbox"/> Animal access to surface water	
<input type="checkbox"/> Overgrazing of grasses	<input type="checkbox"/> Livestock paths and trails along riparian areas	
Comments: Livestock have been excluded from the stream corridor with a permanent fence as part of the CREP project. This area will be planted with trees this spring as part of the restoration project.		

<b>Confinement Areas</b>	<input checked="" type="checkbox"/> Evaluated	<input type="checkbox"/> Not Evaluated
<input checked="" type="checkbox"/> Distance to surface water (50 ft)	<input type="checkbox"/> Polluted run-off reaching surface water	
<input checked="" type="checkbox"/> Presence of manure	<input checked="" type="checkbox"/> Roof runoff water flows to confinement areas	

<input type="checkbox"/> Signs of previous runoff reaching surface water	<input checked="" type="checkbox"/> Adjacent land slopes toward surface water
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Comments: This confinement area is in the process of being upgraded with new heavy use area protection and manure storage facilities. These will be built this spring and are expected to significantly reduce if not eliminate any polluted discharges if maintained and operated correctly. The confinement area between the barn and the exclusion fencing south of the stream is 9/10ths of an acre. Accumulations of manure near the barn were observed. The soils are clay-like and do not infiltrate well according to Mr. Epoch.

The eroded swale on the west side near the fence left by runoff discharging from the confinement area to the stream is still present. The drain tile outlet at the head of this swale that collects water from around the barn and discharges just below the heavily manured area that has been built up with hog fuel around the barn is also still present.

<b>Stock Water</b>	<input type="checkbox"/> Evaluated	<input checked="" type="checkbox"/> Not Evaluated
<input checked="" type="checkbox"/> Distance to surface water (500 ft)	<input type="checkbox"/> Mud and standing water at tanks	
<input type="checkbox"/> Overflow from tanks on to the ground	<input type="checkbox"/> Animals accesses stream for stock water	

Comments: A stock water tank is located near the barn, over 300 feet from the stream.

<b>Upland Pasture Areas</b>	<input checked="" type="checkbox"/> Evaluated	<input type="checkbox"/> Not Evaluated
<input type="checkbox"/> Animal access to stream corridors	<input type="checkbox"/> Signs of overgrazing and erosion	
<input type="checkbox"/> Distance to surface water (>500 ft)	<input type="checkbox"/> Manure accumulations and bare ground	

Comments: There are no areas maintained as pasture areas on this property. All of the area between the fence south of the stream corridor and the barn is used as a confinement area. Mr. Epoch feeds the horses hay year-round because the property does not produce enough grass to feed the number of horses he has.

<b>Manure Management</b>	<input checked="" type="checkbox"/> Evaluated	<input type="checkbox"/> Not Evaluated
Current manure management plan? yes	Manure stored on covered, impervious surface? no	
Manure collected and stored? Not yet	Applied during growing season? Sometimes.	
Manure storage properly sized? n/a	Manure applied during non-growing season?	
Manure storage covered? n/a	Vegetated buffer when manure is applied? unknown	
Manure being collected often? Not yet	Manure applied or stored off site? sometimes	

Comments: Mr. Epoch has created a farm plan to manage manure that will be implemented as soon as the heavy use area and manure storage facility is built. Manure is collected from inside the barn and piled outside on the ground in a pile approximately 4-5 feet high. No management practices are in place to prevent manure-contaminated runoff from discharging from this pile either to the north into the confinement area where groundwater was actively discharging to the stream, or southward towards the Hampton Road roadside ditch. Manure is not collected from the confinement area between the stream and the barn and as a

result there are heavy accumulations of manure near the barn and spread out over the area from the barn to the CREP fence.

#### Other Areas of Concern

Comments:

#### Corrective Actions

At this time no corrective actions are recommended because construction will soon start on the heavy-use area and manure storage facilities. This will make it possible to collect and manage manure, and maintain conditions that do not result in polluted discharges.

Photos Taken: ☒ Yes

☐ No

Sample Taken: ☐ Yes

☒ No

#### Ecology Contact Information

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Inspector Signature: \_\_\_\_\_

Date: 1/7/16