



Livestock and Water Quality Site Visit

Site Visit Information	<input type="checkbox"/> First Visit	<input checked="" type="checkbox"/> Follow-up Visit
Prepared by: Jessica Kirkpatrick	Arrival Time: 11:00 am	Departure Time: 11:30 am
Date: January 15, 2014	Current Weather Conditions: Dry and sunny.	

Owner/Operator Information	
Name: Craig Mayberry	Street: 9333 Guide Meridian St.
City: Lynden	Zip Code: 98264
Phone: 360-441-9903	Email: ckmayberry@clearwire.net

Site Information
County: Whatcom
Watershed: Lower Nooksack (Bertrand)
General site description (Include information about nearby waterbodies and description of farm conditions): This is a small farm that drains to Duffner Ditch and its tributaries. Mr. Mayberry raises sheep, poultry and pigs at this property. Chris Luerkens and I performed this visit as a follow-up to the inspection we performed on June 10, 2013. Mr. Mayberry was present on the property during the inspection but did not accompany us on the walk around the property.

Site Evaluation

Stream Corridor and Areas Near Surface Water	<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: Duffner ditch is the only stream corridor near this property. It runs between this property and Guide Meridian St. on the east border of the property. Duffner Ditch floods out of its banks and into the southern pasture of the property, and this area was flooded during the inspection. Animals were fenced out of this area, however according to Mr. Mayberry the animals graze to within 5 feet of the ditch into the fall. This area may present a risk of discharging pollution to Duffner Ditch if animals are not removed from the pasture in time for manure to degrade and bacteria to die before the winter rains start and the area is flooded.		

Confinement Areas	<input checked="" type="checkbox"/> Evaluated	<input type="checkbox"/> Not Evaluated
<input checked="" type="checkbox"/> Distance to surface water (variable 15 to 50 ft)	<input type="checkbox"/> Polluted run-off reaching surface water	
<input checked="" type="checkbox"/> Presence of mud and manure	<input type="checkbox"/> Roof runoff water flows to confinement areas	
<input type="checkbox"/> Signs of previous runoff reaching surface water	<input type="checkbox"/> Adjacent land slopes toward surface water	

Comments: There are three confinement areas on this property:

a) The winter sheep confinement area on the west border, behind the garden. This confinement area is located well away from Duffner Ditch and appears to drain to the west where there appears to be little risk of polluted water from this area reaching the water.

b) The pig confinement area in and on the west side of the barn. This confinement area houses approximately 25 pigs year round. Manure is scraped into a concrete lined containment area. At the time of the inspection, it appeared unlikely that runoff from this area could discharge into Duffner Ditch. However, this area needs to be observed during a late winter runoff event to conclude that it poses no risk of discharge.

c) The sheep confinement area between the barn and Duffner Ditch. The fence of the confinement area is approximately 15 feet away from Duffner Ditch. The ground between is flat. Animals have not been kept in this area since the summer time and there is a good growth of grass here.

Stock Water	<input checked="" type="checkbox"/> Evaluated	<input type="checkbox"/> Not Evaluated
<input type="checkbox"/> Distance to surface water (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: All animals are provided stock water well away from Duffner Ditch. These watering facilities do not appear to pose any risk of discharging to Duffner Ditch.		

Upland Pasture Areas	<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 (ft)	<input type="checkbox"/> Manure accumulations and bare ground	
Comments: The only pasture is located on the south half of the property. Fifteen to twenty Sheep are pastured here from May to September. The pasture was partially flooded by Duffner Ditch at the time of the inspection, and the animals were fenced out of it. Upon closer inspection, it does appear that water flows back into Duffner Ditch from the pasture when flooding subsides. Using this area for pasture past August poses a substantial risk of discharging pollution in the form of manure contaminated water into Duffner ditch.		

Manure Management	<input type="checkbox"/> Evaluated	<input type="checkbox"/> Not Evaluated
Current manure management plan? no	Manure stored on covered, impervious surface? See below.	
Manure collected and stored? Yes	Applied during growing season? yes	
Manure storage properly sized? n/a	Manure applied during non-growing season? no	
Manure storage covered? no	Vegetated buffer when manure is applied? yes	
Manure being collected often? n/a	Manure applied or stored off site?	
Comments: Sheep manure is stored in an uncovered pile near the middle of an area Mr. Mayberry has planned for a garden. The manure will be composted and spread on the garden in the summer. Pig manure is stored on a concrete slab near the pig confinement area. Mr. Mayberry explained that he does not have any plans to		

remove the manure pile. Liquids and contaminated rainwater that flow off of this pile collect in this concrete area that is part of the confinement area of the dairy that used to operate on this property.

Other Areas of Concern

Comments:

Corrective Actions

- ☒ Install livestock exclusion fencing to keep animals at least 35 ft from surface waters (35ft minimum)
Permanent buffers function most effectively to protect water quality and prevent invasion by weeds when planted and maintained with native shrubs and trees suited to the soils and hydrology of the site.
- ☐ Install off-stream stock water watering facilities and locate them at least ft from surface to prevent risk of water quality impacts (minimum of 75ft)
- ☐ Collect manure frequently and store it in a dry, covered area with an impervious floor or deck
- ☐ Apply manure during the growing season at proper rates and times (minimum of 100ft setback from surface water, or the use of a 35ft vegetative buffer)
- ☐ Site and design confinement and manure storage areas to prevent pollution of surface and ground water
- ☐ Provide heavy use protection in confinement areas and at stock tanks to prevent run-off
- ☐ Construct stream-crossings and emergency water locations in ways that protect the stream
- ☒ Other Actions:
1. Maintain a 3" tall growth of grass in all areas of the winter sheep pasture on the south half of the property. Fecal coliform bacteria can survive for months under moist conditions so animal use of this pasture needs to be managed to ensure that all manure is degraded or removed prior to Duffner Ditch flooding.

Photos Taken: ☒ Yes

☐ No

Sample Taken: ☐ Yes

☒ No

Additional Comments

Comments:

Ecology Contact Information

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Inspector Signature: Jessie S. D.

Date: January 27, 2014