Lummi Administrative Regulation

Storm Water Management Regulations

Lummi Indian Business Council
Natural Resources Department
Water Resources Division

Adopted by the Lummi Natural Resources Commission
(Insert Date)

Approved by the Lummi Indian Business Council
(Insert Date)

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17 LAR 05.010 Introduction

(a) The purpose of this administrative regulation is to provide additional guidance for storm water management and Storm Water Pollution Prevention Plans (SWPPPs) for all lands on the Lummi Indian Reservation and any other lands that are owed by the Nation or held in trust for the Nation by the United States throughout the usual and accustomed grounds and stations and Traditional Areas of the Lummi Nation.

(b) Pursuant to Lummi Code of Laws (LCL) 17.05, each large project operator shall develop and submit a SWPPP to the Lummi Water Resources Division and shall be responsible for achieving compliance with the Water Quality Standards of Surface Waters of the Lummi Indian Reservation (Lummi Administrative Regulations [LAR] 17 LAR 07.010 through 17 LAR 07.210).

(c) Any operator of an industrial facility regulated by the United States Environmental Protection Agency (EPA) must develop and implement a SWPPP within the Lummi Indian Reservation.

(d) Pursuant to LCL 17.05.020, the Water Resources Manager is responsible for review and approval of all SWPPPs prior to beginning any construction or discharge activity.

(e) Pursuant to LCL 17.05.060 (i), if it is determined by the Water Resources Manager that the minimum requirements of LCL 17.05.060 do not provide adequate protection of water quality or sensitive areas (e.g., high value wetlands, aquifer recharge areas, tidelands, and estuaries) either on-site or within a designated area or basin, more stringent controls shall be required to protect water quality or the sensitive area.

17 LAR 05.020 Definitions

In addition to the definitions in LCL Title 17, the following definitions are intended to facilitate the use of this regulation:

"Clearing" or **"Land-Disturbing Activity"** means any regulated activity resulting in a change in the existing soil cover (both vegetative and non-vegetative) and/or the existing soil topography. Land-disturbing activities include, but are not limited to, demolition, construction, clearing, grading, filling, and excavation.

"Design Storm" is a prescribed hyetograph and total precipitation amount for a specific duration and recurrence frequency that can be used to estimate runoff for the purposes of analyzing existing drainage, designing new drainage facilities, or assessing other impacts of a proposed project on storm water runoff.

"Facility" or **"Activity"** means any "point source" or other facility or activity, including land or appurtenances thereto, that is subject to regulation under the National Pollutant Discharge Elimination System (NPDES) program established by the federal Clean Water Act (CWA).

"Hyetograph" is a graph of percentages of total precipitation over a series of time steps representing the duration during which the precipitation occurs.

"Operator" means the party associated with a construction project or regulated facility that: has operational control over construction plans and specifications, including the ability to make modifications to those plans and specifications; or has day-to-day operational control of those activities at a project site that are necessary to ensure compliance with a SWPPP for the site or other permit conditions (e.g., they are authorized to direct workers at a site to carry out activities required by the SWPPP or comply with other permit conditions).

"Point Source" means any discernible, confined, and discrete conveyance, including but not limited to any pipe, ditch, channel, tunnel, conduit, well, discrete fissure, container, rolling stock, concentrated animal feeding operation, landfill leachate collection system, vessel, or other floating craft from which pollutants are or may be discharged. This term does not include return flows from irrigated agriculture or agricultural storm water runoff.

"Site" means the land or water area where any "facility or activity" is physically located or conducted, including adjacent land used in connection with the facility or activity.

17 LAR 05.030 EPA Storm Water Pollution Prevention Plan Requirements Adopted

Except where terms of the following General Construction Permit (GCP) and Multi-Sector General Permit (MSGP) Storm Water Pollution Prevention Plan (SWPPP) requirements are in conflict with the specific terms of LCL Title 17, the following SWPPP requirements are hereby adopted as reference to govern all regulated land-disturbing activities and industrial sectors:

(a) National Pollutant Discharge Elimination System (NPDES) General Permit for Storm Water Discharges from Construction Activities. FR 73, No. 135 pages 40338-40343, July 14, 2008, published by the U.S. Environmental Protection Agency, together with supplements and amendments thereto.

(b) National Pollutant Discharge Elimination System (NPDES) General Permit for Storm Water Discharges from Industrial Activities. FR 73, No. 189, pages 56572 – 56578, Sept. 29, 2008, published by the U.S. Environmental Protection Agency, together with supplements and amendments thereto.

17 LAR 05.040 Design Storms

(a) The purpose of design storm calculations is to analyze existing drainage, design new storm water facilities, or assess other impacts of a proposed activity on storm water discharge.

(b) Minimum design storm requirements for a Single Event Hydrograph Method:

(1) 6-month, 24-hour storm event;

(2) 2-year, 24-hour storm event;

(3) 10-year, 24-hour storm event;

(4) 100-year, 24-hour storm event.

(5) Storm water flow control Best Management Practices (BMPs) must be designed to prevent post-construction runoff flows from exceeding pre-construction runoff flows for the 2, 10, and 100-year, 24-hour storm event.

(6) Storm water quality treatment BMPs must effectively treat a 6-month, 24-hour storm event.

(c) Minimum design storm requirements for a continuous simulation hydrologic model:

(1) Pre-and post-construction 2-year through 100-year return flow frequency values.

(2) Storm water flow control BMPs must be designed to prevent post-construction runoff flows from exceeding the discharge duration values of the pre-construction runoff for the range of pre-construction storm water discharges from 50 percent of the 2-year peak flow up to 100 percent of the 50-year peak flow.

(3) Storm water detention facilities must detain the 91 percent, 24-hour runoff volume from the post-construction flow.

17 LAR 05.050 Storm Water Runoff Computations

(a) Pre- and post-construction storm water peak discharge and runoff volume for each design storm must be calculated. The following are methods for evaluating changes in storm water discharge and runoff volume:

(1) A continuous simulation hydrologic model is a runoff computation method accepted by the Water Resources Manager. Approved models include: Western Washington Hydrology Model (WWHM), EPA's Hydrologic Simulation Program-Fortran (HSPF), and EPA's Storm Water Management Model (SWMM).

(2) The Water Resources Manager will accept alternative storm water runoff computation methodologies (e.g., single event Curve Number based models or the Rational Method) on a case-by-case basis.

(b) The runoff computations shall be used to aid in designing or selecting storm water runoff quality and quantity Best Management Practices (BMPs).

17 LAR 05.060 Pre-Construction Conditions

(a) Unless otherwise agreed upon in writing by the Water Resources Manager, or unless clearly not applicable due to the project location (e.g., floodplain), the pre-development condition used in storm water runoff computations shall be designated a "forested" land cover.

17 LAR 05.070 General Storm Water Management Principles

(a) The SWPPP shall meet the following objectives:

(1) Identify the project location and the expected impacts of the project activity on storm water runoff quantity and quality discharged on or to adjacent property and receiving waters;

(2) Identify the locations and types of Best Management Practices (BMPs) that will be used to avoid, reduce, or prevent storm water contamination and water pollution from construction and industrial activities;

(3) Prevent violation of surface water quality standards identified in 17 LAR 07.010 through 17 LAR 07.210 together with supplements and amendments thereto; and

(4) Identify the peak discharge and runoff volume of storm water discharges from the design storm.

(b) Elements of a SWPPP to be provided by the operator:

(1) Describe the site and the nature of the construction or industrial activity including a map of the site.

(2) Describe changes in runoff discharge and volume due to the land use change or activity.

(3) Describe potential pollutant sources.

(4) Describe the methods that will be used to manage changes in storm water discharge and volume to avoid off-site impacts.

(5) Describe the methods that will be used to protect surface and ground water quality.

(6) Describe the methods that will be used to minimize the area and duration of exposed soil. The Lummi Reservation receives about 75 percent of the average annual precipitation from October through April; the remaining 25 percent from May through September. To reduce erosion potential, all exposed or un-worked soils must be stabilized within the time periods below:

(A) During the wet season (October 1 – April 30): 2 days

(B) During the dry season (May 1 – September 30): 7 days

(7) Describe the management of solid, construction, septic, and hazardous material and waste to avoid on-site and off-site impacts.

(8) Describe the routine maintenance, inspection, and monitoring schedule and procedures to ensure all storm water management measures are operating effectively.

(9) Identify records of inspections and follow-up maintenance of BMPs that will be used.

(10) Identify the members of the storm water pollution prevention team and their individual qualifications and responsibilities.

(11) Identify SWPPP amendments and certification.

17 LAR 05.080 Storm Water Pollution Prevention Plan Checklist

(a) The Water Resources Manager or his/her designee will use the Storm Water Pollution Prevention Plan (SWPPP) checklist when evaluating the SWPPP.

(b) Storm Water Pollution Prevention Plan Checklist

SWPPP Element	Quality of Information	Need Revision?	Comments/Observations
Site Description			
Nature of the activity	C P I NA	Y N	
Intended sequence of major events: timing and responsibility	C P I NA	Y N	
Total area of site, area to be disturbed (including off-site borrow and fill areas)	C P I NA	Y N	
Pre-construction and Post-construction peak discharge and runoff volume for design storm	C P I NA	Y N	
General location map	C P I NA	Y N	
Discharge locations	C P I NA	Y N	
Receiving waters	C P I NA	Y N	
Wetland or special aquatic sites (on-site, downstream, or receiving discharges)	C P I NA	Y N	
Endangered Species Act compliance	C P I NA	Y N	
Historic Preservation and LCL Title 40 compliance	C P I NA	Y N	
National Environmental Policy Act (NEPA) and/or Tribal Environmental Policy Act (TEPA) Compliance	C P I NA	Y N	
Site Map			
Drainage patterns	C P I NA	Y N	
Approximate slopes before and after major grading	C P I NA	Y N	
Areas of soil disturbance	C P I NA	Y N	
Locations of control measures	C P I NA	Y N	
Location where stabilization practices are expected to occur	C P I NA	Y N	
Location of on-site and/or off-site storage of material, waste, borrow, or equipment storage	C P I NA	Y N	
Potential pollutant sources	C P I NA	Y N	
Location of all existing structures and impervious surfaces	C P I NA	Y N	
Location and size of surface waters and buffers (including wetlands)	C P I NA	Y N	
Storm water discharge locations	C P I NA	Y N	
Twelve Elements of a SWPPP			
Preserve vegetation and mark clearing limits	C P I NA	Y N	
Establish construction access	C P I NA	Y N	
Control flow rates	C P I NA	Y N	
Install sediment controls	C P I NA	Y N	
Stabilize soils	C P I NA	Y N	
Protect slopes	C P I NA	Y N	
Protect drain inlets	C P I NA	Y N	
Stabilize channels and outlets	C P I NA	Y N	
Control pollutants	C P I NA	Y N	
Control de-watering	C P I NA	Y N	
Maintain BMPs	C P I NA	Y N	
Manage the project	C P I NA	Y N	
Miscellaneous Items			
Solid, sanitary, and hazardous waste management	C P I NA	Y N	
Maintenance procedures	C P I NA	Y N	
Inspections, storm water monitoring, and reports	C P I NA	Y N	
Copy of the permit signed by operator certifying the SWPPP	C P I NA	Y N	
Lummi Land Use Permit	C P I NA	Y N	
Non-storm water discharges	C P I NA	Y N	
Spill prevention and response	C P I NA	Y N	
Certification by Professional Engineer	C P I NA	Y N	

C=Complete; P=Partially Complete; I=Incomplete or Inaccurate; NA= Not Applicable; Y=Yes; N=No

Review Completed by: _____

Review Completed on: _____

Title/Qualification of Reviewer: _____

17 LAR 05.090 Construction Site Storm Water Inspection Checklist

(a) The Water Resources Manager or his/her designee will use the storm water construction site checklist when conducting construction site inspections.

(b) Construction Site Storm Water Management Checklist.

Project_____ Permit No._____ Inspector_____ Date _____ Time_____

Project Representative_____ Date of Previous Inspection_____

Current Weather Conditions_____

Amount of Precipitation since last inspection:_____ inches and Precipitation in the past 24 hours_____ inches

Site BMPs	Overall Condition	Need Repair?	Comments/Observations
Clearing Limits			
Buffer zones around sensitive areas	G F P	Y N NA	
	G F P	Y N NA	
Construction Access/Roads			
Stabilized site entrance	G F P	Y N NA	
Stabilized roads/parking area	G F P	Y N NA	
Control Flow Rates			
Swale	G F P	Y N NA	
Dike	G F P	Y N NA	
Sediment pond	G F P	Y N NA	
Sediment trap	G F P	Y N NA	
Install Sediment Controls			
Sediment pond/trap	G F P	Y N NA	
Silt fence	G F P	Y N NA	
Straw bale barriers	G F P	Y N NA	
	G F P	Y N NA	
Preserve Vegetation/Stabilize Soils			
Nets and blankets	G F P	Y N NA	
Mulch	G F P	Y N NA	
Seeding	G F P	Y N NA	
	G F P	Y N NA	
Protect Slopes			
Terrace	G F P	Y N NA	
Pipe slope drains	G F P	Y N NA	
Protect Drain Inlets			
Inserts	G F P	Y N NA	
	G F P	Y N NA	
Stabilize Channels and Outlets			
Conveyance channels	G F P	Y N NA	
Energy dissipaters	G F P	Y N NA	
	G F P	Y N NA	
Control Pollutants			
Chemical storage area covered	G F P	Y N NA	
Concrete handling	G F P	Y N NA	
Control De-watering			
	G F P	Y N NA	

G=Good; F=Fair; P=Poor; Y=Yes; N=No; NA=Not Applicable

Describe discharging storm water, if present. Note the presence of suspended sediment, "cloudiness", discoloration, or oil sheen _____

_____

Was water quality sampling conducted as part of this inspection? YES NO

If yes, record results below (attach separate sheet, if necessary):

Location	Equipment	Parameter	Result	Units

Is the site in compliance with the SWPPP and the permit requirements? YES NO

If no, indicate tasks necessary to bring site into compliance on the "Actions to be Completed" table below, and include dates each job WILL BE COMPLETED.

If no, has the non-compliance been reported to the Lummi Water Resources Division? YES NO

If no, should the SWPPP be modified: YES NO

Will existing BMPs need to be modified or removed, or other BMPs installed? YES NO

IF YES, list the action items to be completed on the following table:

Actions to be Completed	Date Completed By
1.	
2.	
3.	
4.	
5.	
6.	
7.	

Sign the following certification:

"I certify that this report is true, accurate, and complete to the best of my knowledge and belief."

Inspection completed on:_____ by: _____

(Date) (Signature)

Title/Qualification of Inspector:_____

17 LAR 05.090 Industrial Site Storm Water Inspection Checklist

(a) The Water Resources Manager or his/her designee will use the storm water industrial site checklist when conducting industrial site inspections.

(b) Industrial Site Storm Management Checklist.

Project_____ Permit No._____ Inspector_____ Date _____ Time_____

Project Representative_____ Date of Previous Inspection_____

Current Weather Conditions_____

Amount of Precipitation since last inspection:_____ inches and Precipitation in the past 24 hours_____ inches

Site BMPs	Overall Condition	Need Repair?	Comments/Observations
Vegetation			
Buffer zones around sensitive areas	G F P	Y N NA	
	G F P	Y N NA	
Site Access/Roads			
Stabilized site entrance	G F P	Y N NA	
Stabilized roads/parking area	G F P	Y N NA	
Control Flow Rates			
Swale	G F P	Y N NA	
Dike	G F P	Y N NA	
Detention pond	G F P	Y N NA	
Vault	G F P	Y N NA	
	G F P	Y N NA	
Treatment devices			
Sediment pond/trap	G F P	Y N NA	
Oil/water separators	G F P	Y N NA	
Filters	G F P	Y N NA	
	G F P	Y N NA	
Stabilize Soils\Materials			
Nets and blankets	G F P	Y N NA	
Mulch	G F P	Y N NA	
Seeding	G F P	Y N NA	
	G F P	Y N NA	
Protect Drain Inlets			
Inserts	G F P	Y N NA	
Labeling	G F P	Y N NA	
Stabilize Channels and Outlets			
Conveyance channels	G F P	Y N NA	
Energy dissipaters	G F P	Y N NA	
	G F P	Y N NA	
Control Pollutants			
Pollutant containment	G F P	Y N NA	
Concrete handling	G F P	Y N NA	
Chemical storage area	G F P	Y N NA	
Diversion of storm water	G F P	Y N NA	
	G F P	Y N NA	

G=Good; F=Fair; P=Poor; Y=Yes; N=No; NA=Not Applicable

Describe discharging storm water, if present. Note the presence of suspended sediment, "cloudiness", discoloration, or oil sheen _____

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Was water quality sampling conducted as part of this inspection? YES NO

If yes, record results below (attach separate sheet, if necessary):

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If no, should the SWPPP be modified: YES NO

Will existing BMPs need to be modified or removed, or other BMPs installed? YES NO

IF YES, list the action items to be completed on the following table:

Actions to be Completed	Date Completed By
1.	
2.	
3.	
4.	
5.	
6.	
7.	

Sign the following certification:

"I certify that this report is true, accurate, and complete to the best of my knowledge and belief."

Inspection completed on:_____ by: _____

(Date) (Signature)

Title/Qualification of Inspector:_____