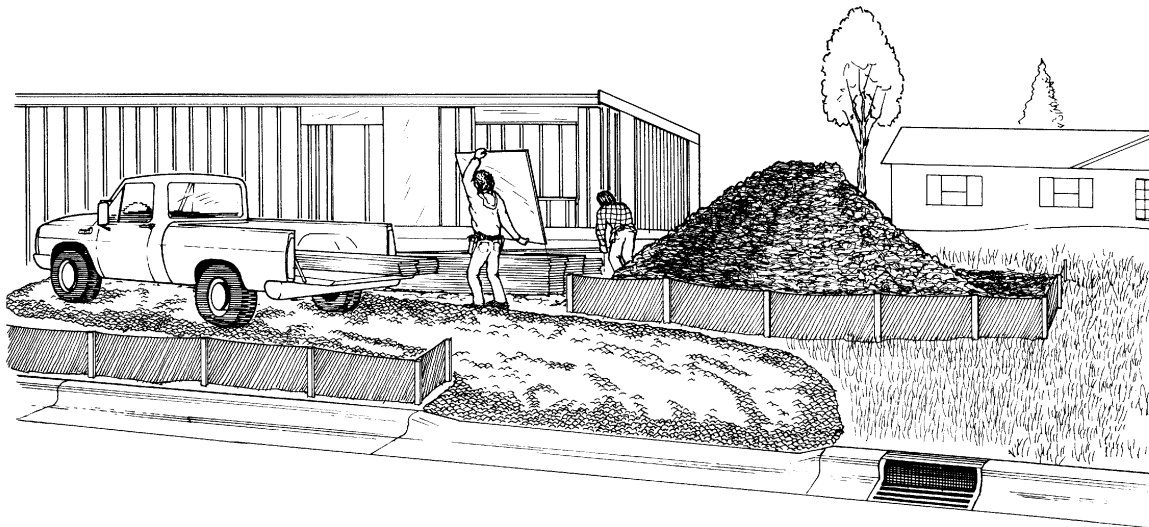


Tribal Manual of Approved Erosion Control and Storm Water Management Practices

Part I: Erosion Control Plan and Storm Water Pollution Prevention Plan Requirements

Prepared by
The Shakopee Sioux Community Land Department

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FREQUENTLY ASKED QUESTIONS

2. When is a Site Development Permit necessary?

A Site Development Permit is required any time there is a soil disturbance greater than 500 ft².

3. Are there cases where I will be exempt from obtaining a Site Development Permit?

In most cases you will need a permit. There are several cases where exemptions can be made and are listed in Section 1.5 of the Tribal Manual of Approved Erosion Control and Storm Water Management Practices.

4. What do I need to submit with an Erosion and Sediment Control Plan?

- Any land disturbing activity greater than 500 ft² requires a Site Development Permit.
- All land disturbing activities greater than 10,000 ft² require an Erosion and Sediment Control Plan.
- Some sites will require an Erosion and Sediment Control Plan depending on the following:
 - i. Proximity to a water body
 - ii. Slope where disturbance is occurring
 - iii. Type and duration of disturbance
 - iv. Soil type where disturbance is occurring
- Note: If the size of the disturbance is greater than an acre or the disturbance is within 25 feet of a water body, you must also submit a Storm Water Pollution Prevention Plan.

5. How do I know what contents are in an Erosion and Sediment Control Plan?

You will need to:

- Submit the narrative, the maps, and details as described in Chapter 3 of Part I of the Manual of Approved Erosion Control and Storm Water Management Practices.
- Submit a Required Elements Checklist found in the Appendix of Part I of the Manual.
- Submit a letter of transmittal.

6. Is there an example to follow?

Yes, in the Appendix of Part I Tribal Manual of Approved Erosion Control and Storm Water Management Practices there is an example Site Development Permit, letter of transmittal, required elements checklist and sample maps for Residential Developments.

7. When am I required to develop a Storm Water Pollution Prevention Plan?

A Storm Water Pollution Prevention Plan (SWPPP) will be required whenever a site disturbance is greater than or equal to 1 acre or the site disturbance is within 25 feet of a lake, wetland, river or stream? At the discretion of the Business Council other circumstances may warrant a SWPPP.

8. *Who will prepare the plans?*

A storm water pollution prevention plan must be prepared or approved and signed by a civil engineer, architect, professional hydrologist, or landscape architect certified or licensed in the State of Minnesota.

9. *Where do I find the necessary information?*

The professionals listed in question 7 will have access to most of the information needed to develop Erosion and Sediment Control Plans and Storm Water Pollution Prevention Plans. While the Land Department will not complete the plans, if requested the Land Department can also provide information or sources of the information.

10. *How long will it take to review the plans?*

The Tribe will complete the review within 30 days – usually much less time is needed.

11. *Can I begin work without the Site Development Permit?*

The Site Development Permit must be approved before any land disturbing activity can begin.

12. *What are the inspection requirements?*

An authorized SMSC representative together with the Permittee(s) will complete the initial inspection and the final stabilization inspection. The Permittee(s) is responsible for the weekly inspections and the inspections required within 24 hours after a 0.5 inch rainfall. All inspections must be recorded on the inspector's log (see Appendix).

13. *What are the enforcement procedures?*

If there are problems with erosion, sediment or storm water control an authorized Community representative will ask the Permittee(s) to rectify the situation. If the problem persists a stop work order will be issued and work will cease. If the situation is still not rectified the SMSC will notify the Permittee(s) of the intent to repair and then repair the deficiencies. The stop work order will continue to be enforced until the SMSC is reimbursed for work completed.

14. *Are the best management practices in part II of the manual the only allowable methods for erosion, sediment and storm water control?*

No, the general goal is to stop sediment from leaving a construction site and account for any additional storm water. If you have alternative methods present them in the Erosion and Sediment Control Plan and/or the Storm Water Pollution Prevention Plan as you would with other best management practices.

15. *What is final stabilization?*

The preferred method is to have a landscape plan implemented. Otherwise, final stabilization means that all temporary erosion control devices have been removed, all permanent erosion control devices have been installed, and the site has a ground cover density of at least 70%.

16. *If the requirements are included here why should I read the Tribal Manual of Approved Erosion Control and Storm Water Management Practices?*

Only selected sections from the Manual have been included here. Section 1 of Part I of the manual contains the general provisions that are applicable to everyone. Section 2 contains the general erosion control requirements for all disturbances and storm water requirements for disturbances greater than 1 acre. Section 3 contains the requirements of

an Erosion and Sediment Control Plan that are applicable to everyone. Section 4 contains the requirements of the Storm Water Pollution Prevention Plan applicable to disturbances greater than 1 acre. The most useful part of the plan may be contained in the Appendices where you can find the Required Elements Checklist, the Inspection Log, and a **sample** Erosion and Sediment Control Plan with an example Letter of Submittal, an example Required Elements sheet, and an example Inspectors Log.

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1 STORM WATER AND EROSION CONTROL GENERAL PROVISIONS

1.1 Purpose

The purpose of this manual is to implement the SMSC Consolidated Land Management Ordinance, Chapter 11, Storm Water Management and Erosion Control.

1.2 Acronyms

- NPDES – National Pollutant Discharge Elimination System
- BMP – Best Management Practice
- ASTM – American Society for Testing Material
- SMSC – Shakopee Mdewakanton Sioux Community
- FEMA – Federal Emergency Management Agency
- SWPPP – Storm Water Pollution Prevention Plan
- SDP – Site Development Permit
- ESCP – Erosion and Sediment Control Plan
- ESA – Endangered Species Act
- EPA – Environmental Protection Agency
- SHPO – State Historic Preservation Officer
- THPO – Tribal Historic Preservation Officer

1.3 Definitions

For the purposes of the Site Development Permit, the following terms, phrases, words, and their derivatives shall have the meaning stated below:

Best management practices (BMP) is a technique or series of techniques that are proven effective in controlling runoff, erosion, and sedimentation.

Borrow is earth material acquired from an off-site location for use in grading on a site.

The Business Council is the body constitutionally authorized to conduct the daily affairs of the Shakopee Mdewakanton Sioux Community and to carry out other duties assigned by the General Council using powers delegated by the General Council.

Discharge is the conveyance, channeling, runoff, or drainage, of storm water, including snowmelt, from a construction site.

Energy dissipation refers to methods employed to prevent erosion of waterways and at the end of pipes.

Final stabilization means that all soil disturbing activities at the site have been completed, and that the landscaping plan has been implemented or permanent perennial vegetation with a density of 70% of the cover for unpaved areas and areas not covered by structures has been established or other form of permanent stabilization has been employed.

Filter strip is a vegetated section of land designed to treat runoff as overland sheet flow. They may be designed in any natural vegetated form from a grassy meadow to a small forest.

Floodplain is the one hundred (100) year floodplain which is that area adjoining a watercourse which could be inundated by a flood that has a one (1) percent chance of being equaled or

exceeded in any given year and is delineated on the Federal Emergency Management Agency Floodway Maps for the SMSC.

The General Council is the body constitutionally authorized to regulate the land and natural resources of the Shakopee Mdewakanton Sioux Community.

Issuing authority is the Shakopee Mdewakanton Sioux Community Business Council or its' authorized representative.

Land disturbance activity is any land change that could result in soil erosion by wind, water, ice or any combination of these and the movement of sediments into or upon water, lands, or right-of-way within the SMSC, including but not limited to, building demolition, clearing and grubbing, grading, excavating, transporting and filling of land. Land disturbance activity does not include the following:

- Minor land disturbance activities including, but not limited to, underground utility repairs, home gardens, minor repairs, and maintenance work which do not disturb more than five hundred (500) square feet of land.
- Installation of fence, sign, telephone, and electric poles and other kinds of posts or poles.
- Emergency work to protect life, limb, or property and emergency repairs. If the land disturbing activity would have required an approved Erosion and Sediment Control Plan except for the emergency, then the land area disturbed shall be shaped and stabilized in accordance with the requirement of this Chapter.

Permittee is the applicant in whose name a valid permit is duly issued pursuant to this Chapter and his/her agents, employees, and others acting under his/her direction.

Retention facility is a temporary or permanent natural or manmade structure that provides for the storage of storm water runoff by means of a permanent pool of water.

Sediment is soils or other surficial materials transported by surface water as a product of erosion.

Site is the entire area of land on which the land disturbance activity is proposed in the permit application.

Site development permit is a required permit that is necessary before a land disturbing activity can commence.

Site plan is a plan or set of plans showing the details of any land disturbance activity of a site including but not limited to the construction of: structures, open and enclosed drainage facilities, storm water management facilities, parking lots, driveways, curbs, pavements, sidewalks, bike paths, recreational facilities, ground covers, planting, and landscaping.

Stabilized is a condition where the exposed ground surface is covered by sod, erosion control blanket, riprap, or other material that prevents erosion from occurring

Storm Water Pollution Prevention Plan is a plan that includes a set of best management practices or equivalent measures designed to address temporary and long-term surface runoff, and associated sediment, related to construction activities on site disturbances greater than or equal to one acre.

Temporary protection is short-term methods employed to prevent erosion. Examples of such measures include; straw, mulch, erosion control blankets, wood chips and erosion netting.

Topsoil is the fertile, typically dark colored upper layer of soil containing organic material and mineral components.

Tribal Lands are the trust and fee lands of the Shakopee Mdewakanton Sioux Community.

Tribal Manual of Approved Erosion Control and Storm Water Management Practices is a manual of approved BMPs designed to address erosion and sediment control and storm water management issues related to construction activities.

Watercourse is any natural or improved stream, river, creek, ditch, channel, canal, conduit, gutter, culvert, drain, gully, swale, or wash in which water flows continuously or intermittently.

Watershed is a region draining to a specific river, river system, or body of water.

1.4 Permits and Plans

1.4.1 Site Development Permit Required

A Site Development Permit is required for any land disturbing activity greater than 500 ft² except those described in section 1.5.

1.4.2 Erosion and Sediment Control Plan Required for All Permits

- An Erosion and Sediment Control Plan is required for any land disturbing activity over 10,000 except those described in section 1.5. Some sites less than 10,000 ft² will require an Erosion and Sediment Control Plan depending on the following:
 - i. Proximity to a water body
 - ii. Slope where disturbance is occurring
 - iii. Type and duration of disturbance
 - iv. Soil type where disturbance is occurring

1.4.3 Storm Water Pollution Prevention Plan Required for Certain Permits

A Storm Water Pollution Prevention Plan is required for any land disturbing activity encompassing 1 acre or greater.

1.4.4 Permit Required Near Waterway or Shoreline

Any land disturbing activities conducted within 25 feet of any wetland, lake or other water body shall include an Erosion and Sediment Control Plan **and** a Storm Water Pollution Prevention Plan, regardless of the total area disturbed.

1.4.5 National Pollution Discharge Elimination System (NPDES) Permit Requirement

A NPDES Permit may be required for any soil disturbance greater than one acre.

1.5 Permit Exemptions.

The following activities are exempt from obtaining a Site Development Permit.

- Drain tiling, tilling, planting, or harvesting of agricultural, horticultural, or silvicultural crops.
- Installation of fence, sign, telephone, or electric poles and other kinds of posts or poles.
- Cemetery graves.
- Emergency work to protect life, limb, or property and emergency repairs, provided the land area disturbed is adequately shaped and stabilized when appropriate in accordance with the requirements of the Land and Natural Resources Department.
- Construction, installation, and maintenance of electric, telephone, or cable television utility lines or individual service connection to these utilities, provided it does not impact a watercourse, and is not located in a floodplain.
- All maintenance, repair, resurfacing and reconditioning activities of existing road, bridge and highway systems which do not involve land disturbing activities outside of the existing surfaced roadway area.

- Any activity where the total volume of material disturbed, stored, disposed of or used as fill does not exceed five (5) cubic yards or the area disturbed does not exceed five hundred (500) square feet provided it does not obstruct a watercourse, and is not located in a floodplain.

1.6 Manner of Work.

1.6.1 General Requirement.

All land disturbing or land filling activities or soil storage shall be considered in conformance with Chapter 11 if:

- Soils have been prevented from being deposited onto adjacent properties, rights-of-ways, public storm drainage systems, or lakes, wetlands or watercourses;
- Storm water created during and after the project has been accounted for in conformance with the requirements in this manual;
- The design, testing, installation, and maintenance of erosion control and storm water operations and facilities adhere to standards and specifications contained in the ordinance.

1.7 Recovery of Costs.

If the Community incurs costs to enforce the provisions of the Site Development Permit, reimbursement of those costs must occur before final inspection and the issuance of any certificate of completion.

1.8 Application.

A written application from the owner of the site or his/her authorized representative shall be required for each permit. All permit applications shall include the required Permit Application Form and three copies of any plan required for the permit.

1.9 Certification of Plans

Plans and specifications shall be prepared or approved and signed by a civil engineer, architect, professional hydrologist, or landscape architect certified or licensed to act in the State of Minnesota.

1.10 Fees and Performance Bond or Letter of Credit.

Any Applicant other than the Community Government or one of its enterprises shall be required to file with the SMSC an application fee of \$340.00 and performance bond or letter of credit or other improvement security in the amount deemed sufficient by the Business Council.

1.11 Plan Scale and Sufficiency

All plans shall be drawn to an appropriate scale and shall include sufficient information to evaluate the environmental characteristics of the affected areas, the potential impacts of the proposed grading on water resources, and measures proposed to minimize soil erosion and off-site sedimentation.

1.12 Conformance to plan required

The Permittee(s) shall perform all clearing, grading, drainage, construction, and development in strict accordance with any approved plan.

1. 13 Permit review, approval and denial

The Shakopee Mdewakanton Sioux Community Land Department will review, approve with or without conditions, or deny each Site Development Permit Application within 30 days of submittal.

1. 14 Responsibility of Permittee

The Permittee(s) shall maintain a copy of the permit, approved plans and reports required under the permit on the work site and available for public inspection during all working hours. The Permittee(s) shall, at all times, be in conformity with the approved plans and conform to the following:

1.14.1 General

No person shall grade on land in any manner, or so close to the property line as to endanger or damage any adjoining public street, sidewalk, alley or any other public or private property.

1.14.2 Public ways

The Permittee(s) shall be responsible for the prompt removal of, and the correction of damages resulting from any soil, miscellaneous debris or other materials washed, spilled, tracked, dumped or otherwise deposited on public streets, highways, sidewalks or other public thoroughfare.

1.14.3 Historic properties

The Permittee(s) shall be responsible for the determination of permit eligibility with regard to Historic Properties.

1.14.4 Endangered Species

The Permittee(s) shall be responsible for the determination of permit eligibility with regard to Endangered Species.

1. 15 Limitation of Permit Authorization

The issuance of a Site Development Permit shall constitute an authorization to do only that work described in the permit, or shown on the approved plans and specifications.

This permit does not authorize:

- a) post-construction discharges that originate from the site after final stabilization;
- b) discharges mixed with non-storm water;
- c) discharges that will cause or contribute to non-attainment of water quality standards, including failure to protect and maintain existing designated uses of receiving waters.

1. 16 Compliance

The Permittee(s), his/her agent, contractors and employees shall carry out the proposed work in accordance with the approved plans and specifications, and in compliance with all the requirements of the permit.

1. 17 Action upon Noncompliance

In the event work does not conform to the permit or to the plans and specifications, notice to comply will be given to the Permittee(s). The Permittee(s) will have a specified time to complete the work or a stop work order shall be authorized. If the work is still not completed the Community may take corrective action at the expense of the Permittee(s).

1. 18 Changes to Plans

All changes or modifications to an approved Erosion and Sediment Control Plan and/or a Storm Water Pollution Prevention Plan must adhere to the following conditions:

- ❑ All proposals to modify the approved plans must be submitted to the SMSC for approval.
- ❑ The Building Inspector or another authorized Community Employee may approve minor modifications to an approved Erosion and Sediment Control Plans and/or a Storm Water Pollution Prevention Plan in the field if documented on a field inspection report.
- ❑ The Permittee(s) shall submit requests for major revisions to an approved Erosion and Sediment Control Plan and/or a Storm Water Pollution Prevention Plan to the SMSC.

1. 19 Inspection and Supervision

The contractor and/or their agents shall conduct a pre-construction meeting on-site with the issuing authority wherever there is an approved Erosion and Sediment Control Plan. After obtaining the Site Development Permit, the Permittee(s) shall inspect the erosion, sediment and stormwater control BMPs to ensure integrity and effectiveness. The issuing authority may require additional inspections as may be deemed necessary. Both routine and incremental inspections are described below:

1. Initial Control Inspection

Prior to any land disturbance, the Permittee(s) shall meet with the regulating authority to inspect the erosion, sediment and storm water BMPs. No other building or grading inspection approvals will be authorized until the issuing authority approves the erosion, sediment and stormwater control measures.

2. Final stabilization

Upon completion of final grading, permanent drainage and erosion control facilities including established ground covers and planting, the Permittee(s) shall meet with the regulating authority and go through the site.

3. Routine Inspections

The Permittee(s) must routinely inspect the construction site once every seven (7) days during active construction and within 24 hours after a storm event greater than 0.25 inches in 24 hours.

1.19.5 Inspection and Maintenance Documentation

All inspections and maintenance conducted during construction must be recorded in writing (See Appendix C - Permittee(s) Log for SMSC Site Development Permit) and these records must be retained with the Erosion and Sediment Control Plan (ESCP) and/or with the Storm Water Pollution Prevention Plan (SWPPP). Records of each inspection and of maintenance activities shall include:

- a) Date and time of inspections;
- b) Name of person(s) conducting inspections;

- c) Findings of inspections, including recommendation for corrective actions;
- d) Corrective actions taken (including dates, times, and party completing maintenance activities);
- e) Documentation of changes made to the ESCP or SWPPP.

1.19.6 Request for Inspections

Requests for inspections shall be made at least twenty-four (24) hours in advance (exclusive of Saturdays, Sundays, and holidays) of the time the inspection is desired. Upon request for inspections, the issuing authority shall perform the inspection within forty-eight (48) hours of request.

1.19.7 Permission to Enter

In making an application for a Site Development Permit the applicant or the landowner performing such work consents to the issuing authority having the right to enter the site for the purpose of inspecting.

1. 20 Required Reporting

The Permittee shall notify the issuing authority if there are 1) delays in plan implementation or 2) work departs from the plan.

1. 21 Security

The Business Council may require posting of a surety bond or letter of credit. The bond or letter of credit shall be in such a form and amount as is necessary to assure that the work, if not completed in accordance with the approved plan and specification, will be corrected.

1. 22 Enforcement.

The Business Council or its delegated representative shall be responsible for the enforcement of the Site Development Permit.

1.22.1 Stop Work Orders

The Business Council may post a stop-work order for the entire project or any specified part thereof if any of the following conditions exist:

- a) Any land disturbance activity regulated under the Site Development Permit is being undertaken without a permit.
- b) The Erosion and Sediment Control Plan is not being fully implemented.
- c) The Storm Water Pollution Prevention Plan is not being fully implemented.
- d) Any of the conditions of the permit are not being met.

1.22.2 Posting Required

An issued stop work order shall be visibly posted at the entrance to the work site and mailed to the Permittee(s)

1.22.3 Failure to Cease Work Under Permit

If the Permittee(s) does not cease the activity or comply with the Erosion and Sediment Control Plan and/or the Storm Water Pollution Prevention Plan or permit conditions within one (1) day, the issuing authority may revoke the permit.

1.22.4 Notice of Intent to Repair

Immediately after posting the stop work order the Community may issue a notice of intent to the permittee, lessee, or land user of the issuing authority's intent to perform work necessary to comply with Site Development Permit.

1.22.5 Right to Repair

After issuing a stop work order the Community shall have the right to proceed with any work necessary to bring the site into compliance with the plans filed with any approved Site Development Permit.

1. 23 Final Reports.

Upon completion of the work, the issuing authority may require a report (including as-built construction plans) from a civil engineer, surveyor, architect, professional hydrologist, or landscape architect certifying that all storm water and erosion and sediment control devices have been completed in accordance with the conditions of the permit and approved plans and specifications, and with specific listing of all approved changes and modifications.

1. 24 Certification of Completion.

Upon receipt and approval of the final reports, if required, or upon otherwise determining that all work of the permit has been satisfactorily completed in conformance with this subtitle, the issuing authority will issue a letter certifying completion.

2 CONSTRUCTION ACTIVITY REQUIREMENTS

2.1 Sediment control

The sediment control practices will be applied to all site disturbances. Refer to Part II of the Tribal Manual of Approved Erosion Control and Storm Water Management Practices for specific Erosion, Sediment and Storm Water controls and BMPs.

- a) The maximum disturbed surface area at any one time must not exceed the Permittee(s) resources and ability to meet the inspection and maintenance requirements of this manual. The Permittee(s) must use, where possible, construction phasing, vegetative buffer strips, horizontal slope grading, and other construction practices that minimize erosion.
- b) Sediment control practices must minimize sediment from entering surface water, including curb and gutter systems and storm sewer inlets.
 - i. Temporary or permanent drainage ditches and sediment basins that are designed as part of a treatment system (e.g., ditches with rock check dams) require sediment control practices only as appropriate for site conditions.
 - ii. If the downstream treatment system is overloaded, additional upstream sediment control practices must be installed to eliminate the overloading, and the SWPPP must be amended to identify these additional practices.
 - iii. In order to maintain sheet flow and minimize rills and/or gullies, there should be no unbroken slope length of greater than 75 feet for slopes with a grade of 3:1 or steeper.
 - iv. All storm drain inlets must be protected by appropriate BMPs during construction until all sources with potential for discharging to the inlet have been stabilized.
- c) Sediment control practices must be established on all down gradient perimeters before any upgradient land disturbing activities begin. These practices shall remain in place until final stabilization has been established.
- d) The timing of the installation of sediment control practices may be adjusted to accommodate short-term activities such a clearing or grubbing, or passage of vehicles. Any short-term activity must be completed as quickly as possible and the sediment control practices must be installed immediately after the activity is completed; however, sediment control practices must be installed before the next precipitation event even if the activity is not complete.
- e) Temporary soil stockpiles must be stabilized and cannot be placed in surface waters, including storm water conveyances such as curb and gutter systems, or conduits and ditches.
- f) Vehicle tracking of sediment from the construction site must be minimized by BMPs such as rock driveways, stone pads, concrete or steel wash racks, or equivalent systems. Street sweeping must be used if such BMPs are not adequate.
- g) If sediment escapes the construction site, offsite accumulations of sediment must be removed at a frequency sufficient to minimize offsite impacts.
- h) Properties adjacent to the site of a land disturbance shall be protected from sediment deposition.
- i) All erosion and sediment control devices must be inspected, maintained and repaired according to the guidelines in this manual.
- j) Measures must be taken to minimize soil compaction.

2.2 Storm water management

The practices described in 2.2 are intentioned primarily for activities disturbing **an acre or greater**. This does not preclude the regulating authority from implementing specific portions of the storm water management requirements on areas disturbing less than one acre. Refer to Part II of the Tribal Manual of Approved Erosion Control and Storm Water Management Practices for specific Erosion, Sediment and Storm Water controls and BMPs. The general stormwater management requirements are as follows:

- a) All storm water must be discharged in a manner that does not cause nuisance conditions, erosion in receiving channels or on down slope properties, or inundation in wetlands causing a water quality standard violation.
- b) Where a project's ultimate development replaces vegetation and/or other pervious surfaces with one or more acres of cumulative impervious surface, a water quality volume of ½ inch of runoff from the new impervious surfaces created by the project must be treated prior to the runoff leaving the construction site or entering surface water by one of these five methods:
 - i. Wet sediment basin
 - ii. Infiltration/filtration
 - iii. Regional ponds
 - iv. Combination of practices
 - v. Alternative methods

See Part II of the Tribal Manual of Approved Erosion Control and Stormwater Management Practices for a more detailed description of these five methods.

- c) For those areas (sub-watersheds) of a project that are less than one (1) acre and there is no feasible way to meet the treatment requirement for the water quality volume, other treatment such as grassed swales, smaller ponds or grit chambers is required prior to discharge to surface waters. A cumulative maximum of (3) three acres or 1% of project size, whichever is larger, can be treated in this manner.
- d) Where the proximity to bedrock precludes the installation of any of the permanent storm water management practices outlined above other treatment such as grassed swales, smaller ponds, grit chambers is required prior to discharge to surface waters.
- e) For work on road projects where the lack of right of way precludes the installation of any of the permanent storm water management practices outlined above, other treatment such as grassed swales, smaller ponds, grit chambers is required prior to discharge to surface waters.
- f) The need for storm water management facilities shall be reduced by incorporating or restoring the use of natural topography and land cover such as wetlands, ponds, natural swales and depressions to the degree that they can accommodate the additional flow of water without comprising the integrity or quality of the wetland or pond. When development density, topographic features, soil and vegetative conditions are not sufficient to adequately handle storm water runoff using natural features and vegetation, various types of constructed facilities such as diversions, settling basins, skimming devices, dikes, waterways, and ponds may be used. Preferences shall be given to designs using surface drainage, vegetation, and infiltration rather than buried pipes and manmade materials and facilities.

g) Any construction activity that disturbs 10 or more acres of land at one time, including non-contiguous land disturbances that take place at the same time and are part of larger plan of development the following requirements apply:

- i. The average turbidity of any discharge for any day must not exceed 280 nephelometric turbidity units (NTU) except as a result of a storm event that same day that is larger than the local 2-year, 24 hour storm.

2.2.1 Stormwater Rate Control.

The applicant shall include the design of all storm water management facilities necessary to manage increased runoff so that the 2-year, 10-year and 100-year storm peak discharge rates from the property boundary shall be less than the pre-development conditions based on the land use prior to the adoption of the Storm Water Management and Erosion Control Ordinance.

2.2.2 Stormwater Volume Control.

2.2.2.1 Current Best Management Practices Required

For protection of downstream water bodies from channel erosion and nutrient loadings, the applicant shall use the most current Best Management Practices (BMPS) to reduce the general impacts of increased runoff volume.

2.2.2.2 Impervious Surface and Best Management Practices

Development resulting in the creation of impervious surfaces must explicitly address the use of BMPs to limit the loss of pervious area. BMPs to be evaluated shall include, but not be limited to, vegetated swales, pond outlets perched above ground water levels, roof drainage to pervious areas, depressed casual storage areas, minimization of the number and width of parking stalls, “rural section” roads, and road width minimization, mitigation of disrupted soils, and other low impact development techniques.

2.2.2.3 Additional Runoff Volume Control

Where the evaluation of downstream properties and water resources demonstrates a need for additional control of runoff volumes, the applicant shall provide storage or other infiltrative capacity or other measures appropriate to mitigate the identified impact.

2.2.3 Channel Erosion

The Storm Water Pollution Prevention Plan shall not allow accelerated channel erosion on and off site because of the proposed land disturbing or development activity. Pre-development conditions may include lake or pond outlets that have existed as of the effective date of the Erosion Control and Stormwater Ordinance.

2.2.4 Detention and Retention Storage for Water Quality.

Detention and retention pond outlets shall be protected against the release of floating debris and contaminants, including but not limited to petroleum and its’ byproducts.

2.2.5 Prevention of downstream nuisance and damage.

In addition to the general channel protection storm water volume controls described above, the applicant shall demonstrate that increased storm water runoff volumes above pre-development conditions will not adversely affect downstream water resources.

2.2.6 Minimum Standards.

The requirements of this section are intended to be minimum standards for protection of soil and water resources. Where design and construction requires the involvement of professional expertise, the standards of this section shall not define or replace the requirements of professional conduct and practice.

2.2.7 Standards for Stormwater Conveyance and Rate Control Facilities.

2.2.7.1 Calculations

All storm water management calculations submitted for review shall include sufficient information to evaluate the changes to the storm water drainage characteristics within the watershed areas affected by the proposed land disturbance activity. The applicant shall provide calculations, which clearly show the affects of this development on the peak rate of discharge, the time of concentration, channel velocities and other potential drainage impacts to water and soil resources both on and off the development site. The SMSC may require the applicant to provide as part of the storm water rate and volume calculations, any additional information or data needed to complete the review.

2.2.7.2 Calculation Methodologies

The storm water calculations submitted for review shall use standard hydrological and hydraulic analysis methods that are acceptable to the SMSC. Calculations that use unproven methodologies or apply proven methodologies incorrectly shall be determined by the SMSC to be unacceptable for the purposes of the Site Development Permit and shall be returned to the applicant for correction and resubmittal.

2.2.7.3 Public Facility Impacts

Where development site drainage discharges to an existing roadway, ditch or storm sewer system or other public facility, the applicant shall provide as part of the calculations, all survey, utility or other topographic data of the existing condition needed for the SMSC to determine that the proposed development does not impact or degrade any critical roadway element or affect the safety, maintenance and function of the public facility.

2.2.7.4 Drainage areas.

Storm Water Pollution Prevention Plans shall show existing and proposed drainage areas used for storm water analysis, including off-site portions of the subwatershed that are partly located on the property for which the plan is being prepared. Where drainage areas included runoff from off-site areas, those areas may be shown and measured from maps at larger scales (e.g., United States Geological Survey Quadrangle Maps) if better mapping is not reasonably available.

2.2.7.5 Runoff Curve Numbers (RCNs).

The applicant shall include a detailed breakdown of existing and proposed RCNs used.

2.2.7.6 Time of Concentration Values (TCVs).

The applicant shall include the time of concentration value calculated for each modeled area.

2.2.7.7 Post-development Hydric Soils.

For evaluation of post-development runoff, drained hydric soils shall be assumed to revert to an undrained condition unless the applicant demonstrates that publicly owned and maintained drainage facilities will be adequate to maintain the drained condition.

2.2.7.8 Impervious Coverage.

Storm water management calculations shall list the new impervious area created in each sub-watershed and shall include the assumptions and calculations used for determining impervious area (house pad, driveway, etc).

2.2.7.9 Runoff Calculations.

The applicant shall provide calculations for two (2), ten (10), and one hundred (100) year peak discharge rates for each subwatershed comparing pre-developed conditions and proposed conditions.

2.2.7.10 Other Calculations.

The applicant shall include any calculations that were made for the design of such items as sediment basins, wet detention basins, diversions, waterways, infiltration zones, and other applicable practices.

2.2.8 Standards for Wet Detention Basins.

2.2.8.1 Design

Design for detention basins shall include but not necessarily be limited to calculation for estimated inflow and outflow, permanent and temporary storage volumes, mean depth, outlet design, downstream stabilization, emergency spillway, pond profile and pond cross section.

2.2.8.2 Skimmers Required

Skimmers shall be included on the outlet of wet detention ponds. Construction details of the skimmers shall be shown on the construction plans for the pond.

2.2.8.3 Ground Water Vulnerability.

Wet ponds located in wellhead protection, source water protection areas identified as being vulnerable, or in drinking water supply management areas shall be designed to protect the quality of the water supply.

2.2.9 Pollution prevention measures

The Permittee(s) shall implement the following pollution prevention management measures on the site:

- a) Solid Waste: Collected sediment, asphalt and concrete millings, floating debris, paper, plastic, fabric, construction and demolition debris and other wastes must be disposed of properly and must comply with all federal, state and local requirements.

- b) Hazardous Materials: Oil, gasoline, paint and any hazardous substances must be properly stored, including secondary containment, to prevent spills, leaks or other discharge. Restricted access to storage areas must be provided to prevent vandalism. Storage and disposal of hazardous waste must be in compliance with MPCA regulations.
- c) External washing of trucks and other construction vehicles must be limited to a defined area of the site. Runoff must be contained and waste properly disposed of. No engine degreasing is allowed on site.

3 EROSION AND SEDIMENT CONTROL PLAN CONTENTS

The following information shall be included with every Site Development Permit application. The checklist containing these requirements can be found in Appendix A and must be turned in with any site development permit application.

3.1.10 Narrative Elements

Letter of transmittal: A brief description of the nature and purpose of the land disturbance activity including: the surface area involved, excess spoil material, and use of borrow material.

Name, address and telephone number: The name, address, and telephone number of the owner/lessee, Permittee(s), operator and the developer of the property where the land disturbing activity is proposed.

Existing site conditions: A description of the pre-construction topography, vegetation and drainage.

Adjacent areas: A description of neighboring areas, such as streams, lakes, residential areas, and roads that might be affected by the land disturbance.

Soils: A brief description of the surface and subsurface soils on the site.

Critical areas: A description of areas within the developed site that have potential for serious erosion or sediment problems.

Erosion and sediment control measures: A description of the methods that will be used to control erosion and keep sediment on the site including temporary and permanent erosion control, and temporary and permanent sediment control measures. Vegetative measures used in temporary and permanent erosion control. Who will be responsible for implementation?

Permanent stabilization: A brief description of how the site will be stabilized after construction is completed.

Soil stabilization: A construction note stating: "Following initial soil disturbance or redistribution, permanent or temporary stabilization shall be completed within seven (7) days on all perimeter dikes, swales, ditches, perimeter slopes, embankment of ponds, basins, and traps and all slopes greater than 3 horizontal to 1 vertical (3:1); and within fourteen days (14) on all other disturbed or graded areas."

Maintenance: A schedule of regular inspections and repairs of erosion and sediment control structures, and the person responsible for maintenance for the duration of the permit.

3.1.11 Map Elements

Existing contours: Existing elevation contours of the site at a 2 foot interval.

Preliminary and final contours: Proposed changes in the existing elevation contours for pre and post grading.

Extent of land disturbance: A map showing the proposed extent of land disturbance activity including: the surface area involved, and excess spoil material storage.

Soils: If one soil does not dominate the site by 60% or greater, than the boundaries of the different soil types within the proposed development should be included on the map. Otherwise include a brief description on the map detailing the soil type and composition of the surface and subsurface soils.

Easily erodible: A designation of the site's areas that have the potential for serious erosion problems.

Existing vegetation: A clear and definite delineation of any areas of vegetation or trees shrubs, grass, and unique vegetation to be saved.

North arrow and Scale

Vicinity Map: A general neighborhood location map with sufficient scale to show the adjoining properties, surrounding area's watercourses, water bodies, streets, and other significant geographic features.

Existing and final drainage patterns: A map showing the dividing lines and the direction of flow for the different drainage areas before and after development, and how well off-site water passes through the site without contamination.

Critical areas: Areas within or near the proposed development with potential for serious erosion or sediment problems.

Limits of clearing and grading: A line showing the areas to be disturbed, and proposed buffer strips.

Erosion and sediment control measures: Locations, names, and dimensions of the proposed temporary and permanent erosion and sediment control measures.

Storm drainage system: Location of permanent storm drain inlets, pipes, outlets, and other permanent drainage facilities (swales, waterways, etc.), draining water on or near the site.

Watercourse delineation: A clear and definite delineation of any wetlands, natural or artificial water storage detention areas, lakes, wetlands and watercourses on site or impacted by runoff from the site.

Adhering to the plan: A statement on the plan by the owner, developer and contractor that any clearing, grading, construction, or development, or all of these, will be done pursuant to the plan.

3.1.12 Detail Elements

Final site stabilization: Design details describing the methods used to ensure final site stabilization. This will include the vegetative means used to obtain 70% ground cover before perimeter controls are removed. The preferable method is the development of a landscaping plan.

Structural design: Design details for both temporary and permanent erosion control and retention structures.

Maintenance program: Inspection schedule, spare materials needed, stockpile locations, and instructions for sediment removal and disposal and for repair of damaged structures.

A chronological construction schedule and time frame including, at a minimum, the following activities:

- Clearing and grubbing of those areas necessary for installation of perimeter erosion control devices
- Construction of perimeter erosion control devices
- Remaining interior site clearing and grubbing

- Installation of permanent and temporary stabilization measures
- Road grading
- Grading for the remainder of the site
- Utility installation and whether storm drains will be used or blocked after construction
- Building, parking lot, and site construction
- Final grading, landscaping and/or stabilization
- Implementation and maintenance of final erosion control structures
- Removal of temporary erosion control devices

The Business Council, upon the advice of the Land and Natural Resources Manager and Community Engineer, may require any additional information data deemed appropriate and/or may impose such condition thereto as may be deemed necessary to ensure compliance with the provisions of the Tribal Manual of Approved Erosion and Sediment Control and Storm Water Management Practices; and to protect the natural resources of the Community.

4 STORM WATER POLLUTION PREVENTION PLAN CONTENTS

In addition to Section 3 the following contents are required when developing a Storm Water Pollution Prevention Plan. Some of the requirements for the Erosion and Sediment Control Plan may overlap and do not necessarily need to be duplicated. *The SWPPP site plans must include:*

4.1.1 Narrative

- a) Project Description – narrative describing the nature and extent of the land disturbing activity;
- b) Name and phone number of individuals responsible for plan preparation, plan implementation and erosion control device installation and maintenance;
- c) Description of which neighboring properties will be affected by the proposed plat and the direct and/or indirect impacts;
- d) Description of the methods used to stabilize soil stockpile areas;
- e) Description of the methods used to prevent discharge of solid materials to receiving waters or conveyance systems;
- f) Description of the methods used in temporary and final stabilization;
- g) Identify all potential sources of pollution that may be expected to affect the quality of storm water;
- h) Description of the sequence and timing of the activities that disturb soil at the site;
- i) Description of the post construction storm water management measures that will be installed during the construction process that will be used to control pollutants in storm water discharges after construction operations have been completed;
- j) Description of the hazardous, construction and other waste materials expected to be stored on-site;
- k) Documentation supporting a determination of permit eligibility with regard to Endangered Species, including:
 - i. Information on whether listed endangered or threatened species, or designated critical habitat may be in the project area;
 - ii. Whether such species or critical habitat may be adversely affected by storm water discharges or storm water discharge-related activities from the project;
 - iii. Results of the Addendum A listed species and critical habitat screening determinations; and
 - iv. A description of measures necessary to protect listed endangered or threatened species, or critical habitat, including any terms and conditions that are imposed under the eligibility requirements of (1. 15).
- l) Documentation supporting a determination of permit eligibility with regard to Historic Properties, including:
 - i. Information on whether storm water discharges or storm water discharge-related activities from the site would have an effect on a property that is listed or eligible for listing on the National Register of Historic Places;
 - ii. Where effects may occur, any written agreements that have been made by the owner operator with the State Historic Preservation Officer, Tribal Historic Preservation Officer, or other Tribal leader to mitigate those effects; and
 - iii. A description of measures necessary to avoid or minimize adverse impacts on places listed, or eligible for listing, on the National Register of Historic Places, including any terms or conditions that are imposed under (other plans) the eligibility requirements of (1. 15). The

measures must include procedures for properties discovered during the course of construction. The Permittee(s) must describe and implement such measures to maintain eligibility for coverage under this permit.

4.1.2 Figures

- a) A general location map with north arrow, scale, benchmark and where site is in relation to surrounding areas;
- b) Property boundaries – show property, lot lines, section lines and adjacent plats;
- c) Existing and proposed final contours, including dividing lines and direction of flow for all pre and post-construction storm water runoff drainage areas located within the project limits;
- d) Elevation and grade – street and ditch grades, pond, wetland, lake NWL and HWL and pipe inverts;
- e) Location and type of all temporary and permanent erosion; prevention and sediment control BMPs;
- f) Critical Erosion Areas – show areas with potential for serious erosion problems
- g) Location of phased construction and areas not to be disturbed.
- h) Site map must include impervious surfaces and soil types;
- i) All surface waters, including existing wetlands, public waters, tribal waters, natural and artificial water storage and retention areas, protected waters and their individual 100-year flood elevations and wetland boundaries;
- j) 100-year floodplains, within ½ mile, shall be shown on the site plan, including regulatory floodplains as defined in the floodplain zoning ordinance;
- k) Directions of storm water flow and approximate slopes anticipated after major grading activities;
- l) Locations of major structural and nonstructural controls identified;
- m) Locations where stabilization practices are expected to occur;
- n) Locations of off-site material, waste, borrow or equipment storage areas;
- o) Locations where storm water discharges to a surface water;
- p) Ground water sensitivity – areas identified as being highly susceptible to ground water contamination;
- q) Show existing tile lines;
- r) Storm sewer inlets – show storm sewer inlets;
- s) Construction entrances – show stabilized construction entrances;
- t) Soil stockpiles – show soil stockpile areas.

4.1.3 Details

- a) Construction specifications that define specifications and rates for landscaping, grass seed, fertilizing, mulch anchoring methods and time requirements for permanent seeding;
- b) Provide details of the stabilization methods used for construction entrances;
- c) Standard plates and details of the methods used to prevent sediment-laden water from entering the storm sewer system;
- d) Standard plates and details which describe the rip-rap used for any purpose;

- e) Standard plates of other best management practices such as erosion control blankets, energy dissipaters, grass lined channels, and sediment barriers.

4.2 Additional items for large projects

Additional items are those items that are required for Tribal review as part of the construction documents and/or the Erosion Control Plan but need not be included as part of the Storm Water Pollution Prevention Plan. This requirement pertains only to site disturbances **greater than or equal to 1 acre**.

4.2.1 Designs

- a) Floatable skimmers – included on outlet of wet detention ponds. Show construction details on plan.
- b) The design of all stormwater management facilities necessary to manage increased runoff so that the 2-year, 10-year and 100-year storm peak discharge rates from the property boundary shall not exceed pre-development conditions that existed prior to the adoption of SMSC Erosion Control Ordinance;

4.2.2 Calculations

- a) Detention pond – calculations for any pond used to control peak discharge rates;
- b) Wet detention pond – NURP pond used for nutrient removal and peak discharge rate control. Show calculations for estimated inflow and outflow, permanent and temporary storage volumes, mean depth, outlet design, downstream stabilization and emergency spillway;
- c) Drainage Calculations – show calculations for 2,10 and 100 year peak discharge rates comparing existing and proposed conditions;
- d) Runoff curve numbers and time of concentration values – detailed breakdown of existing and proposed curve numbers and time of concentration values.

4.2.3 Figures

- a) Soils map showing soil boundaries, including mapping unit, soil name, slopes and hydrologic group;
- b) Wet detention ponds – location of new wet detention ponds including location of inflow, outflow, NWL, HWL, emergency spillway, pond profile and cross section.

APPENDIX A – SITE DEVELOPMENT PERMIT APPLICATION

**APPENDIX B - REQUIRED ELEMENTS CHECKLIST FOR ALL SITE
DEVELOPMENT PERMITS**

**APPENDIX C - PERMITTEE(S) LOG FOR SMSC SITE DEVELOPMENT
PERMIT**

**APPENDIX D –EXAMPLE EROSION CONTROL PLAN FOR SITES LESS
THAN ONE ACRE**