

PROPOSED

Leelanau County

Soil Erosion, Sedimentation and Stormwater Runoff

Control (SESSRC) Ordinance

adopted by resolution of the Board of County Commissioners in
accordance with provisions of Section 9105(2&3)
Part 91, Soil Erosion and Sedimentation Control, of Natural
Resources and Environmental Protection Act 1994, PA 451, as
amended. (Part 91)

PREAMBLE

This Ordinance, adopted by resolution of the Leelanau County Board of Commissioners, sets forth the administrative procedures, standards, and enforcement remedies which shall be used by the Leelanau County County Enforcing Agency (CEA) to enforce Part 91 and the SESSRC Ordinance.

I. Purpose and Objectives

A. Purpose

The purpose of this Ordinance is to prevent the pollution, impairment, or destruction of a natural resource or the public trust in Leelanau County.

B. Objectives

Specific objectives include the following:

1. To prevent accelerated soil erosion, prevent sedimentation, and control stormwater runoff resulting from earth changes proposed within Leelanau County, both during and after construction.
2. To insure that property owners control the volume and rate of stormwater runoff originating from their property so that surface water and groundwater quality is protected, soil erosion minimized, off-site sedimentation prevented and flooding potential reduced.
3. To preserve the natural drainage systems to encourage infiltration and to minimize the need to construct enclosed, below-grade storm drain systems.
4. To preserve natural infiltration and the recharge of groundwater and to maintain subsurface flows which replenish lakes, streams and wetlands and maintain the quality of those waterways.
5. To restrict stormwater runoff entering and leaving development sites to non-erosive velocities by requiring temporary and permanent soil erosion control measures.
6. To insure that soil erosion, sediment, and stormwater runoff control systems are incorporated into site planning at an early stage in the planning and design process.

7. To prevent unnecessary stripping of vegetation and loss of soils, especially adjacent to lakes, streams, watercourses, and wetlands.
8. To prevent construction activity that may cause mass movement, slumping, or erosion of land surfaces.
9. To eliminate the need for costly maintenance and repairs to roads, embankments, ditches, streams, lakes, wetlands, and stormwater control facilities which are the result of inadequate soil erosion, sediment and stormwater runoff control.
10. To reduce long-term expenses and remedial projects which are caused by uncontrolled stormwater runoff, soil erosion and sediment.
11. To encourage the design and construction of stormwater control systems which serve multiple purposes, including but not limited to flood prevention, water quality protection, wildlife habitat preservation, education, recreation, and wetlands protection.
12. To reduce the detrimental impacts of stormwater flows on downstream communities.
13. To allow for off-site stormwater control facilities and measures if proposals meet the requirements of these regulations.
14. To insure that all stormwater control facilities will be properly designed, constructed, and maintained.
15. To provide for enforcement of this ordinance and

penalties for violations.

II. Relationship of the Ordinance to Part 91

A. Rules Adopted

Part 91 as amended and administrative rules promulgated under authority of Part 91 are hereby adopted by reference and made a part of this ordinance as if fully set forth herein. To the extent that any of the provisions or requirements of this ordinance are more restrictive than, or are in addition to, the provisions or requirements of Part 91 and Rules, this ordinance shall control.

III. Permit Requirements

A. Jurisdiction for Permit Administration

1. The Leelanau Conservation District shall be the CEA for regulated earth changes proposed within the boundaries of Leelanau County.

B. Regulated Earth Changes

Earth changes requiring a SESSRC permit from the CEA include the following:

1. All earth changes which disturb one (1) or more acres of land, or are within 500 feet of a lake or stream.
2. Earth changes for environmentally sensitive residential sites.

3. Industrial or commercial use development sites, regardless of size, location, or environmental sensitivity.
4. All subdivision developments as defined by section 102 of Act 288, P.A. 1967, as amended, regardless of size, location, or environmental sensitivity.
5. All Site Condominium developments as defined by section 559.01 et seq. of the Michigan Compiled Laws of Act 59, P.A. 1978, as amended regardless of size, location, or environmental sensitivity.

C. Earth Changes not requiring a permit

1. A permit is not required for any of the following:
 - a. Those earth changes that are under the jurisdiction of an APA (Authorized Public Agency) or a Municipal Enforcing Agency in Leelanau County.
 - b. A person engaged in the logging industry, the mining industry, or the plowing or tilling of land for the purpose of crop production or the harvesting of crops. However, all earth changes associated with the activities listed above shall conform to the same standards as if they required a permit under this part. The exemption from obtaining a permit does not include either of the following:

- (1) Access roads to and from the site where active mining or logging is taking place.
 - (2) Ancillary activities associated with logging and mining.
 - c. A beach nourishment project permitted under part 325 of Act 451 of the Public Acts of 1994, as amended.
 - d. Normal road and driveway maintenance, such as grading or leveling, that does not increase the width and length of the road or driveway and that will not contribute sediment to lakes and streams.
 - e. An earth change of a minor nature that is stabilized within 24 hours of the initial earth disturbance and that will not contribute sediment to lakes and streams.
 - f. Earth changes associated with well locations, surface facilities, flowlines, or access roads relating to oil or gas exploration and development activities regulated under part 615, if the application to drill and operate under part 615 contains a soil erosion and sedimentation control plan that is approved by the department under part 615. However, those earth changes shall conform to the same standards as required for a permit under this part. This subsection does not apply to a multisource commercial hazardous waste disposal well as defined in section 62506a.
2. Exemptions provided in (1b - 1f) of this section shall not be construed as exemptions from enforcement procedures under part 91 or this ordinance.

D. Identification of Environmentally Sensitive Sites

1. Property owners are responsible for determining whether their sites are environmentally sensitive as defined in this Ordinance (Definition T, page 26).

E. Permit Application Submittal

1. All applications for SESSRC permits shall include one copy of the proposed soil erosion, sediment and stormwater runoff control plan unless more copies are requested by the CEA. Copies of the permit application form shall be made available by the CEA.
2. Permit applications shall be submitted to the Leelanau CEA.
3. Application for a permit shall be made prior to the start of any earth change including but not limited to construction of access roads, driveways, stump removal, or grading. Permit approval shall be given prior to the initiation of any work activity. Any unauthorized work shall be considered a violation of this ordinance regardless of any later actions taken toward compliance. Soil test borings, vegetative cutting for land surveys and percolation tests shall not be considered a start of work under these regulations.
4. The application review period begins upon receipt of a completed application and fee.

F. Sequential Applications

1. On projects which are so large or complex that a plan encompassing all phases of the project cannot reasonably be

prepared prior to initial groundbreaking, application for permit on successive major incremental earth change activities may be allowed. Requests for sequential applications shall be approved by the CEA prior to submittal of a permit application.

2. Approval of sequential applications shall take place in phases. Initially, the overall conceptual plan for the entire development shall be submitted for review and preliminary approval. Subsequently, detailed plans for sections of the total project shall be submitted for review and final approval and issuance of a permit.
3. All permits processed and issued for phases of a project shall be clearly defined as to the nature and extent of work covered. Each phase of the project must be reviewed and permitted prior to construction.

G. Permit Approval or Disapproval

1. If the CEA determines that the proposed soil erosion, sedimentation and stormwater runoff control plan complies with this ordinance, a permit shall be issued specifying the work approved. If the proposed plan does not comply with the ordinance, the application shall be modified or denied. This will be completed within 30 days.

2. The CEA shall furnish the applicant with a statement in writing of the reasons for permit denial or approval within thirty (30) days of application submittal.
3. If necessary, the CEA may request additional information from the applicant.

H. Permit Expiration or Revocation

1. The original permit may be written for a period of up to one (1) year. The permit holder may request an extension of up to one year if there are valid reasons to support such an extension.
2. Any permit issued by the CEA under this Ordinance may be revoked or suspended for any of the following causes:
 - a. A violation of a condition of the permit.
 - b. Obtaining a permit by misrepresentation or failure to fully disclose relevant facts in the application or soil erosion and stormwater runoff control plan.
 - c. A change in a condition that requires a temporary or permanent change in the activity.

I. Administrative Fee Schedule

1. Permit fees shall be based on the costs of administering and enforcing the soil erosion and sedimentation control and stormwater management permit program.

2. The fee schedule for this program shall be approved by the Leelanau County Board of Commissioners.

J. Penalties for Initiating Earth Change Activities without a Permit

Any earth change activities without a valid permit or in violation of a permit or permit conditions shall be considered a violation of this Ordinance and subject to fines and other penalties as provided in this Ordinance or Part 91.

IV. Issuance of Building Permits

A. A general law township, charter township, city, village or county agency shall not issue a land use permit or building permit for an earth change subject to permit requirements until a soil erosion and stormwater runoff control permit has been issued by the CEA.

B. The landowner shall notify the general law township, charter township, city, village, county agency or other governmental agency with jurisdiction after a permit decision has been made.

V. Other Permits and Approvals of Other Government Agencies

A. Approvals under this Ordinance shall not relieve a property owner of the need to obtain other permits or approvals from federal, state, county, and local agencies.

- B.** If requirements of federal, state, county, and local officials vary, the most stringent requirements shall be followed.

VI. Soil Erosion, Sedimentation and Stormwater Runoff

Control Plan

A soil erosion, sedimentation and stormwater runoff control plan shall be prepared for any earth change subject to permit requirements. The plan shall be designed to effectively reduce accelerated soil erosion and sedimentation during construction and after construction is completed.

- A. All SESSRC applications for permits shall include a plan that shows the following:**
1. A map or maps at a scale of not more than 200 feet to the inch or as otherwise determined by the county or local CEA. A map shall include a legal description and site location sketch that includes the proximity of any proposed earth change to lakes, streams or both, or protected wetlands, partially or completely contained within the boundaries of the site or within 500 feet of the site boundary; predominant land features; and contour intervals or slope description.
 2. A soils survey or a written description of the soil types of the exposed land area contemplated for the earth change.
 3. Details for proposed earth changes, including all of the

following:

- a. A description and the location of the physical limits of each proposed earth change.
- b. A description and the location of all existing and proposed on-site drainage and dewatering facilities.
- c. The timing and sequence of each proposed earth change.
- d. The location and description for installing and removing all proposed temporary soil erosion and sediment control measures.
- e. A description and the location of all proposed permanent soil erosion and sedimentation control measures.
- f. A program proposal for the continued maintenance of all permanent soil erosion and sediment control measures that remain after project completion, including the designation of the person responsible for the maintenance. Maintenance responsibilities shall become a part of any sales or exchange agreement for the land on which the permanent erosion control measures are located.
- g. Other information which the CEA requires to review the impact of the proposed earth change in relationship to the standards and requirements of this Ordinance.

**VII. General Standards for Approval of Soil Erosion,
Sedimentation and Stormwater Control Plans**

- A.** The appropriate CEA shall approve, disapprove, or require

modification of an application or plan for an earth change permit within 30 calendar days following receipt of the application. The CEA shall notify an applicant of approval by first-class mail. If an application is disapproved, then the CEA shall advise the applicant by certified mail of its reasons for disapproval and conditions required for approval. The CEA need not notify an applicant of approval or disapproval by mail if the applicant is given written approval or disapproval of the application in person. A permit given to the applicant either in person or by first-class mail constitutes approval.

- B.** All earth changes subject to review under the requirements of this Ordinance shall be designed, constructed, and maintained to provide for prevention of off-site sediment and the detention of runoff water and to protect water quality.
- C.** Measures required for soil erosion and stormwater runoff control shall take into consideration natural features, proximity of the site to lakes, streams, and protected wetlands, extent of impervious surfaces, potential for soil erosion and flooding, and the size of the site.
- D.** Stormwater conveyance, storage, and infiltration facilities shall be designed to provide for non-erosive velocities of stormwater runoff.
- E.** Alterations to natural drainage patterns shall not create or increase downstream or upstream flooding or sedimentation.
- F.** When a proposed earth change is located in an area where a watershed plan has been approved by the County Board of

Commissioners, the standards for stormwater detention and retention volumes, discharge rates, and stormwater facility locations specified in the approved Watershed Plan shall be deemed to meet the requirements of this Ordinance.

VIII. Off-Site Stormwater Control

A. Waiver option

1. In lieu of on-site stormwater facilities and measures, the use of off-site stormwater facilities and measures, together with on-site soil erosion control, may be proposed. In such cases, the applicant shall request a waiver of the requirements for on-site stormwater runoff control. The waiver request shall be submitted to the CEA with a permit application and a soil erosion, sedimentation and stormwater runoff control plan, including information specified in Section V of this Ordinance. This waiver option does not allow for changes in requirements for on-site soil erosion and sedimentation control.

B. Shared Off-Site Stormwater Control Facilities

1. Off-site stormwater control areas may be shared between two or more property owners or developments, provided that maintenance agreements have been approved by the CEA and easements have been obtained and recorded.
2. Stormwater management easements are required for all

areas used for off-site stormwater control unless an exception has been granted by the CEA. Easements shall be recorded with the Leelanau County Register of Deeds prior to approval of the final development plan by the CEA.

C. Applicable Standards

1. General Standards specified in Section VI of this Ordinance shall be used in reviewing proposed soil erosion, sedimentation and stormwater runoff control plans for off site stormwater facilities and measures.

IX. Maintenance

- A.** All soil erosion, sedimentation and stormwater runoff control facilities and measures shall be maintained in accordance with permit conditions.
- B.** The person responsible for maintenance shall be designated in the Soil Erosion, Sedimentation and Stormwater Runoff Control Plan and the permit application submitted to the CEA.
- C.** Maintenance agreements shall specify responsibilities for financing maintenance and emergency repairs, including but not limited to the procedures specified in Section XII and XIII of this Ordinance.
- D.** The CEA will make the final decision of what maintenance option is appropriate in a given situation. Natural features, proximity of site to lakes, streams and protected wetlands, extent of impervious surfaces, size of the site and potential need for

ongoing maintenance activities will be considered when making this decision.

X. Stormwater Management Easements

A. Stormwater management easements shall be provided by the property owner if necessary for: (1) access for facility inspections and maintenance, or (2) preservation of stormwater runoff conveyance, infiltration, and detention areas and facilities, including flood routes for the 100-year storm event. The purpose of the easement shall be specified in the maintenance agreement signed by the property owner.

B. Stormwater management easements are required for all areas used for off-site stormwater control, unless a waiver is granted by the CEA.

C. Easements shall be recorded with the Leelanau County Register of Deeds prior to issuance of a certificate of compliance by the CEA. (Part XI, section c).

XI. Compliance Assurances

A. Performance Guarantees

1. Applicants proposing subdivision plats, road construction projects, or other developments identified by the Soil CEA with a high potential for soil

erosion shall be required to post a cash escrow, letter of credit, or other acceptable form of performance security with the Conservation District in an amount determined by the CEA.

2. Letters of credit, if used as a performance guarantee, shall extend for a minimum of one year with the option of renewal. Letters of credit will be returned to the applicant when the site is certified by a licensed professional (Section XIB) and the site is completely stabilized to meet requirements set forth by the Erosion Control Officer.

B. Construction Certification by Registered Professional

For any sites that required a professional site plan, a certification letter shall be submitted after soil erosion, sedimentation and stormwater runoff control facilities have been installed to affirm that construction has been completed in accordance with the approved soil erosion, sedimentation and stormwater runoff control plan. This certification letter can be prepared by one of the following registered professionals: civil engineer, land surveyor, architect, and/or landscape architect unless it was specified by the CEA that it would need to be a civil engineer that approves the plan.

Note: Changes to a plan must be approved by the CEA before implementation.

C. Certificate of Compliance

Upon receipt and approval of the certification letter, the CEA shall issue a certificate of compliance to the property owner.

XII. Inspections

- A.** An agent appointed by the county CEA, may enter at all reasonable times in or upon private or public property for the purpose of inspecting and investigating conditions or practices that may be in violation of the Ordinance.
- B.** If upon inspection, site conditions are found not to be as stated in the permit or approved SESSRC plan, the permit will be invalid. No earth change shall be undertaken, or continued, until revised plans have been submitted and a valid permit issued.
- C.** Requests for revisions must be submitted to and approved by the CEA in writing before being effective. If approved, a revised site plan shall be submitted for review and approval.

XIII. Cease and Desist Orders and Emergency Actions

- A.** If necessary to insure compliance with the permit requirements, standards, and other provisions of this Ordinance, or to protect public health safety and welfare, the CEA may issue a cease and desist order for the purpose of

preventing or minimizing accelerated soil erosion, off-site sedimentation, stormwater runoff, or other conditions posing imminent and substantial danger to public health, safety, welfare, or natural resources.

- B.** If necessary to protect public safety or water resources, including lakes, streams, protected wetlands, and other receiving bodies of water, the CEA may initiate emergency action to abate imminent and substantial danger and risk, subject to Section XIV B of this Ordinance.

- C.** Except as otherwise provided through maintenance agreements, the property owner may be held responsible for reimbursing Leelanau County for all costs incurred as a result of emergency action, including administrative costs, provided that a finding is made that the property owner violated provisions of this Ordinance, a permit, or an approved maintenance agreement, subject to Section XIV B of this Ordinance.

- D.** The cease and desist order, when issued, shall require all specified earth change activities to be stopped. A copy of the cease and desist order shall immediately be submitted to other state and local agencies with regulatory jurisdiction.

- E.** If the CEA determines that soil erosion and sedimentation of the waters of this state has or will reasonably occur from a parcel of land in violation of this Ordinance, he/she may seek to enforce the ordinance by notifying the person

who owns the land, by mail, with return receipt requested, of its determination. The notice shall contain a description of the violation and what must be done to remedy the violation and shall specify a time to comply with this part and rules promulgated under this part.

- F.** A person who owns land subject to this ordinance shall implement and maintain soil erosion and stormwater runoff control measures in conformance with this Ordinance within five (5) days after the notice of violation has been given as specified in Section E above.

XIV. Enforcement Action

A. General Provisions

1. All earth changes in Leelanau County, including earth changes exempt from permit requirements, other than APA projects, are subject to the enforcement provisions and penalties of this ordinance.
2. A person who owns land on which an earth change has been made that may result in or contribute to soil erosion or sedimentation of the waters of the state shall implement and maintain soil erosion and sedimentation control measures that will effectively reduce soil erosion or sedimentation from the land on which the earth change has been made.
3. The CEA shall notify the Michigan Department of Environmental Quality of all violations of this ordinance, including violations attributable to an earth change undertaken by an APA.

B. County Installation of Soil Erosion, Sedimentation & Stormwater Runoff Control Measures

1. Soil erosion, sedimentation or stormwater runoff control measures or facilities may be constructed or maintained by the CEA and/or a hired consultant or contractor, at the property owner's expense, if the necessary provisions for the correction of a violation are not successfully implemented within five (5) calendar days after the notice of violation is mailed.
2. The CEA shall not expend more than \$10,000.00 for the cost of work, materials, or labor without prior notice included in notice of violation to the property owner. If more than \$10,000.00 is to be expended under this section, the work shall not begin until at least ten (10) days after the notice of violation has been mailed as described in Section XII E of this Ordinance.
3. All expenses incurred by the CEA to construct and maintain measures and facilities to bring the site into compliance shall be reimbursed by the property owner. The County shall have a lien on the property for the expenses incurred. For single-family or multiple-family residential properties, the lien shall have priority over all liens and encumbrances filed or recorded after the date of such expenditure. For other types of property, the lien for such expenses shall be collected and treated in the same manner as provided for property tax liens under Act 206 of 1893.

4. a. A person who violates this ordinance and who, after notice,
refuses to implement and maintain soil erosion and stormwater runoff control measures in conformance with this ordinance is responsible for a municipal civil infraction and may be ordered to pay a civil fine of not more than \$2,500.00.
- b. A person who knowingly violates this ordinance or knowingly makes a false statement in an application for a permit or in a soil erosion and sedimentation control plan is responsible for the payment of a civil fine of not more than \$10,000.00 for each day of violation.
- c. A person who knowingly violates this ordinance after receiving a notice of determination under section XIII E is responsible for the payment of a civil fine of not less than \$2500.00 or more than \$25,000 for each day of violation. A fine collected under this section shall be paid to Leelanau County.
5. A default in the payment of a civil fine or costs ordered under this Ordinance or an installment of the fine or costs may be remedied by any means authorized under the revised judicature act of 1961, Act No. 236 of the Public Acts of 1961, being sections 600.101 to 600.994 of the Michigan Compiled Laws.

XV. Appeals

A. Right of Appeal

1. Any person aggrieved by the action or inaction of the CEA related to this Ordinance may appeal to the Leelanau County Soil Erosion and Sedimentation Control Appeals Board. Review of the control plans or permit conditions, regarding the effectiveness or the necessity of SESSRC controls can only be made by a person trained as per Section 9123(1) of Part 91.
2. The affected Township Zoning Board of Appeals will have jurisdiction to hear a variance of the setbacks suggested when a zoning variance is concurrently considered.

XVI. Severability

- A.** If any section, clause, provision or portion of this ordinance is adjudged unconstitutional or invalid by a court of competent jurisdiction, the remainder of the ordinance shall not be affected. The Ordinance shall revert to the limits of Part 91 of Act 451 of 1994, as amended, and rules and remain in force should part of the Ordinance become invalid due to amendments to Part 91 and rules.
- B.** Amendments may be made following the adopted procedures of the Leelanau County Board of Commissioners.

XVII. Definitions

The following terms and phrases shall have the meaning given herein, unless the context otherwise requires:

- A. Accelerated Soil Erosion** - The increased movement of soils that occurs as a result of human activities and development.
- B. Authorized Public Agency** - State, local or county agency designated pursuant to Section 9110 of Part 91, Soil Erosion and Sedimentation Control Act, of Act 451 of 1994 as amended for the purpose of enforcing soil erosion control requirements with regard to earth changes undertaken by that agency.
- C. Best Management Practice (BMP)** - Structural device, measure, facility, or activity which helps to achieve soil erosion and stormwater management control objectives at a designated site.
- D. Board of County Commissioners** - Leelanau County Board of Commissioners.
- E. Cease and Desist Order** - A notice issued by the CEA or an authorized agent of the CEA to the landowner to require the landowner to cease earth change or development activities.
- F. Channel** - The portion of a natural stream which conveys normal flows of water, or a ditch or channel excavated for the flow of water.
- G. Commercial** - All land uses except for one-family and two-family detached dwellings and appurtenant structures. The use of property in connection with or for the purchase, sale, display, or exchange of goods, merchandise, or personal services, as well as the maintenance or operation of businesses or recreational or amusement enterprises.
- H. Conservation District** - Leelanau Conservation District.

- I. **Control Plan** - Soil Erosion, Sedimentation and Stormwater Runoff Control Plan.
- J. **Conveyance Facility** - A surface or subsurface structure or channel which transports stormwater runoff.
- K. **Design Storm** - A rainfall event that has a specific statistical probability of occurring in any given year. For example, a 2-year design storm is a storm with a 50 percent chance of occurring during the year. Design storm figures are used to calculate the runoff volume and peak discharge rate through a detention or retention basin or other stormwater management facility.
- L. **Detention Basin** - A structure or facility, natural or artificial, which stores stormwater on a temporary basis and releases it at a controlled rate. A detention basin may drain completely after a storm event, or it may be a body of water with a fixed minimum and maximum water elevation between runoff events.
- M. **Discharge** - The rate of flow of water through an outlet structure at a given point and time, measured in cubic feet per second (cfs).
- N. **Disturbed Area** - An area of land subjected to erosion due to the removal of vegetative cover and/or earthmoving activities, including filling.
- O. **Drainage** - The interception and removal of groundwater or surface water by natural or artificial means.

- P. Downstream** - Lands and waters which receive stormwater runoff and other surface water flows from a designated site. Downstream lands and waters are down-gradient from the designated site.
- Q. Drainage System** - All facilities, channels, and areas which serve to convey, filter, store, and/or receive stormwater, either on a temporary or permanent basis.
- R. Earth Change** - A human-made change in the natural cover or topography of land, including cut and fill activities, which may result in or contribute to soil erosion or sedimentation of the waters of the state. The term "earth change", as used in this ordinance, shall not apply to the practice of plowing and tilling soil for the purpose of crop production.
- S. CEA** - A county agency designated to enforce this ordinance.
- T. Environmentally Sensitive Sites** - Includes any single-family or multiple-family residential site with one or more of the following characteristics:
1. Sites where driveways have been planned with a slope greater than 10 percent (1 foot vertical to 10 feet horizontal).
 2. Sites with clay and/or silt soils, and soils classified as hydric soils and hydrologic group D soils.
 3. Sites located within 100 feet of a regulated wetland, lake or stream.
 4. Other sites identified by local units of government as having a high potential for environmental degradation including flooding as a result of soil erosion or stormwater runoff

on-site or off-site.

- U. Erosion** - See "soil erosion" definition.
- V. Flood** - An overflow of surface water onto lands not normally covered by water. Floods have these essential characteristics: the inundation of land is temporary and results from unusually heavy precipitation; and the land is inundated by overflow from a lake, pond, stream, and/or wetland, or is flooded by natural runoff.
- W. Floodplain** - The area of land adjoining a lake or stream which is inundated when the flow exceeds the capacity of the normal channel. For mapping purposes, floodplains are designated according to the frequency of the flood event, such as the 100-year floodplain or 500-year floodplain.
- X. Impervious Area** - Impermeable surfaces, such as paved or gravel driveways, parking areas, or roads which prevent the infiltration of water into the soil.
- Y. Infiltration** - The downward movement or seepage of water from the surface to the subsoil and/or groundwater. The infiltration rate is expressed in terms of inches per hour.
- Z. Infiltration Facility** - A structure or area which allows stormwater runoff to gradually seep into the ground, e.g. french drains, seepage pits, infiltration basin, dry well, or perforated pipe.
- AA. Lake** - A permanent body of open water which is one (1) acre or more in size.

- BB. Maintenance Agreement** - A binding agreement between the landowner and Leelanau County which sets forth the location and design of best management practices, as well as the terms and requirements for stormwater and erosion control facility maintenance recorded with the County Register of Deeds.
- CC. Material** - Soil, sand, gravel, clay, or any other organic or inorganic material which is not municipal refuse defined by Part 115 of the NREPA (Natural Resource Environmental Protection Act), 1994, Act 451, as amended.
- DD. Non-erosive Velocity** - A rate of flow of stormwater runoff, measured in feet per second, which does not erode soils. Non-erosive velocities vary for individual sites, taking into account topography, soil type, and runoff rates.
- EE. Off-site Facility** - Stormwater management or erosion and sedimentation control facility which is located partially or completely off of the development site.
- FF. Ordinary High Water Mark** - The line between upland and bottomland which persists through successive changes in water levels, below which the presence and action of the water is so common or recurrent that the character of the land is marked distinctly from the upland and is apparent in the soil itself, the configuration of the surface of the soil and the vegetation. On an inland lake which has a level established by law, it means the high established level. Where water returns to its natural level as the result of the permanent removal or abandonment of a dam, it means the natural ordinary high water mark. For the

Great Lakes the ordinary high water mark is 580.5 feet above sea Level, 1985 IGLD.

- GG. Peak Rate of Discharge (Peak Flow)** - The maximum calculated rate of stormwater flow at a given point in a channel, watercourse, or conduit resulting from a predetermined frequency storm or flood, measured in cubic feet per second (cfs).
- HH. Permit** - Soil erosion, sedimentation and stormwater runoff control permit.
- II. Person** - Any individual, firm, partnership, association, public or private corporation, company, organization or legal entity of any kind, including governmental agencies.
- JJ. Regional Detention Basin** - A basin to detain water flow from a number of development sites or a small watershed.
- KK. Regulated Wetland** - A wetland which meets one or more of the following criteria: (1) a wetland which is within 500 feet of a lake or stream or 1000 feet of Great Lakes, (2) a wetland subject to regulation by a township, village, city, or county.
- LL. Retention Basin** - A wet or dry stormwater holding area, either natural or manmade, which does not have an outlet to adjoining watercourses or wetlands other than an emergency spillway.
- MM. Runoff** - Stormwater runoff.
- NN. Sediment** - Mineral or organic solid particulate matter that has been removed from its site of origin by (a) soil erosion; (b) suspension in water: and/or (c) wind or water transport.

- OO. Sedimentation** - The process or action of depositing sediment.
- PP. Site** - Any tract, lot, or parcel of land or combination of tracts, lots or parcels of land proposed for development.
- QQ. Soil Erosion** - The wearing away of land by the action of wind, water, gravity or a combination thereof.
- RR. Soil Erosion and Sedimentation Control Board** - The Leelanau County Appeals Board.
- SS. Soil Erosion Control Facilities and Measures** - Any structure, facility, barrier, berm, vegetative cover, basin, or other measure which serves to control soil erosion and sedimentation in accordance with the purposes and standards of this Ordinance.
- Temporary Measures** means control measures which are installed or constructed to control soil erosion and sedimentation and which are not maintained after project completion.
- Permanent Measures** - Installations designed to control soil erosion after a project is completed.
- TT. Soil Erosion, Sedimentation and Stormwater Runoff Control Plan** - Maps and written information for a proposed land use or earth change which describe the limits of the earth change, site characteristics and the way in which soil erosion and stormwater runoff will be controlled, during and after completion of construction which meets requirements of Rule 1703 and other provisions of this ordinance.

- UU. Soil Erosion and Stormwater Runoff Control Permit** - Signed, written statement issued under this Ordinance authorizing the applicant to engage in specified earth changes.
- VV. Storage Facility** - A basin, structure, or area, either natural or manmade, which is capable of holding stormwater for the purpose of reducing the rate of discharge from the site.
- WW. Stormwater Control Facilities and Measures** - Any facility, structure, channel, area, or vegetative cover, or measure which serves to control stormwater runoff in accordance with the purposes and standards of these regulations.
- XX. Stormwater Runoff** - Waters from rains falling within a tributary drainage basin, flowing over the surface of the ground or collected in channels, watercourses, or conduits, measured in depth of inches.
- YY. Stream** means a river, creek, or other surface watercourse which may or may not be serving as a drain as defined in Act No. 40 of the Public Acts of 1956, as amended, and which has definite banks, a bed, and visible evidence of the continued flow or continued occurrence of water, including the connecting waters of the Great Lakes.
- ZZ. Stream Bank** - The usual boundaries, not the flood boundaries, of a stream channel.
- AAA. Stripping** - Any activity which removes or significantly disturbs the vegetative surface cover, including clearing and grubbing operations.

- BBB. Swale** - Low-lying grassed or armored area with gradual slopes which transports stormwater, either on-site or off-site.
- CCC. Vegetative cover** - Grasses, shrubs, trees, and other vegetation which hold and stabilize soils.
- DDD. Watercourse** - Any natural or human-made waterway, drainageway, drain, river, stream, diversion, ditch, gully, swale, or ravine having a definite direction or course, either continuously or intermittently flowing.
- EEE. Watershed** - A land area, also known as a drainage area, which collects precipitation and contributes runoff to a receiving body of water, point along a watercourse, stormwater facility, control structure, or site of earth change.
- FFF. Wetland** - Land characterized by the presence of water at a frequency and duration sufficient to support and that under normal circumstances does support wetland vegetation or aquatic life and is commonly referred to as a bog, swamp, or marsh. A wetland will contain a predominance, not just an occurrence, of wetland vegetation, aquatic life, or hydric soil.
- GGG. Wetland Vegetation** - Plants that exhibit adaptations to allow, under normal conditions, germination or propagation and to allow growth with at least their root systems in water or saturated soil.

XVII. Effective Date

The ordinance shall take effect on _____ and after publication according to statute.

_____, Chairperson

Leelanau County

Board of Commissioners