

EXHIBIT B
ORDINANCE NO. 181

1.100 EROSION CONTROL AND WATER QUALITY STANDARDS

1.110 Purpose. The purpose of these standards is to reduce the amount of sediment and pollutants reaching the public storm and surface water system resulting from development, construction, grading, excavating, clearing, and any other activity that accelerates erosion or increases water pollution. The objective is to control erosion and pollution at its source in order to maintain and improve water quality and reduce downstream impacts.

1.111 Applicability. A preliminary erosion control and mitigation plan shall be required and approved by the City Council, or its designee, under any of the following circumstances:

- A. Prior to final plat approval for any subdivision or partition, in accordance with Chapter 156 of the Dunes City Code.
- B. Prior to the approval of any land use application, building or grading permit that results in:
 - 1. The disturbance of 1,000 square feet or more of land surface area; or
 - 2. Land or native vegetation disturbance within 100 horizontal feet of the top of the bank of any wetland, lake, stream, river or
 - 3. The disturbance of land or vegetation affecting 500 square feet or more of land area on slopes of 12 percent or greater; or
 - 4. The disturbance of land or vegetation affecting 500 square feet or more of land within 1,000 feet of Woahink or Siltcoos Lakes or any of their tributaries.
- C. Upon a finding that visible or measurable erosion has entered, or is likely to enter, the public storm and surface water system. As used in this section, “visible or measurable erosion” shall include the following:
 - 1. Depositions of soil or sediment exceeding one cubic foot in volume on a public or private street, adjacent property, or into the surface water management system either by direct deposit, dropping, discharge or as a result of erosion.

2. Flows of water over bare soils, turbid or sediment-laden flows, or evidence of on-site erosion such as rivulets or bare soil slopes, where the flow of water is not filtered or captured on the site.
3. Earth slides, mudflows, earth sloughing, or other earth movement that leaves the property or origin.

1.112 Approval Standards. The City Council, or its designee, shall make the following affirmative findings prior to approval of a preliminary Erosion Control Plan:

- A. The project has been designed to minimize disturbance of natural topography, native vegetation and soils.
- B. The site design maximizes the preservation of healthy trees, understory shrubs and ground cover, except within a road right-of-way.
- C. The plan complies with the applicable technical guidelines, as determined by the City Engineer. In the case of erosion control standards, the current ODOT Hydraulics Manual Volume 2, Erosion and Sediment Control, shall be the recognized authority.
- D. The plan was prepared by an engineer licensed by the State of Oregon.

1.113 Erosion Control Plan Submission Requirements. The required preliminary Erosion Control Plan shall include a narrative description and scaled drawings that address:

- A. The physical characteristics of the site, including a map of existing topography at two (2) foot contour intervals, the location of water areas, and a narrative description of soil characteristics. The requirement for a two (2) foot contour map may be waived by the City Council, or its designee, where this information is not readily available, and erosion potential is minor.
- B. The nature of the proposed development, including any phasing plans, which may affect soils or create soil erosion. Areas of excavation, grubbing, clearing, stockpiling, or vegetation removal shall be specifically identified.
- C. Specific erosion control measures and practices to be used to demonstrate compliance with Section 1.114.

1.114 Erosion Control Plan Standards. In addition to compliance with relevant portions of the Dunes City Code, the required preliminary Erosion Control Plan shall comply with the following standards:

- A. Control Measures. Specific methods of soil erosion and sediment control shall be used during construction to minimize visible and measurable erosion. In no case shall soil erosion and sediment transport from the site exceed the rate of one ton per acre per year. These methods shall include all of the following:
1. The land area to be grubbed, stripped, used for temporary placement of soil, or to otherwise expose soil shall be confined to the immediate construction site only.
 2. The duration of exposure of soils shall be kept to a minimum during **site development** and construction. Exposed soils shall be covered by mulch, sheeting, temporary seeding or other suitable material following grading or construction, until soils are stabilized. During the rainy season (November through May), soils shall not be exposed for more than seven (7) consecutive days. All disturbed land areas that will remain unworked for twenty-one (21) days or more during construction shall be mulched and seeded.
 3. During construction, runoff from the site shall be controlled, and increased runoff and sediment resulting from soil disturbance shall be retained on-site. Temporary diversions, sediment basins, barriers, check dams, or other methods shall be provided as necessary to hold sediment and runoff.
 4. A stabilized pad of gravel shall be constructed and maintained at all entrances and exits to the construction site. The stabilized gravel pad shall be the only allowable entrance or exit to the site.
 5. Topsoil removal for development shall be stockpiled and reused on-site to the degree necessary to restore disturbed areas to their original or enhanced condition, or to assure a minimum amount of stable topsoil for re-vegetation. Additional soil shall be provided if necessary to support re-vegetation.
 6. The removal of all sediments that are carried into the streets, or on to adjacent property, are the responsibility of the developer. The **developer** shall also be responsible for cleaning and repairing streets, catch basins, and adjacent properties, where such properties are affected by sediments or mud. In no case shall sediments be washed into storm drains, ditches, drainage ways, streams, wetlands or lakes.
- B. Restoration of Vegetation. In addition to compliance with any native vegetation removal and enhancement provisions of the Dunes City Code,

the developer shall be responsible for re-vegetating public and private open spaces, utility easements, and undeveloped rights-of-way in accordance with an approved Schedule of Installation. Vegetation shall be restored in the following manner:

1. If the vegetation existing prior to site development is non-native or invasive, it shall be replaced with native or non-invasive plant species.
2. Temporary measures used for initial erosion control shall not be left in place.
3. Work areas on the immediate site shall be carefully identified and marked to reduce potential damage to trees and vegetation.
4. Trees shall not be used as anchors for stabilizing working equipment.
5. During clearing operations, trees and vegetation shall not be permitted to fall or be placed outside of the work area.
6. In areas designated for selective cutting or clearing, care in falling and removing trees and brush shall be taken to avoid injuring trees and shrubs to be left in place.
7. Stockpiling of soil, or soil mixed with vegetation, shall not be permitted on a permanent basis.

C. Schedule of Installation. A schedule of planned erosion control and re-vegetation measures shall be provided, which sets forth the progress of construction activities, and mitigating erosion control measures.

D. Accountable Person. The developer shall designate a specific person to be responsible for carrying out the Erosion Control Plan.

E. Reference Authority. The current ODOT Hydraulics Manual Volume 2, Erosion and Sediment Control shall be the primary guide for establishing and reviewing erosion control techniques, methods and requirements. The City Council, or its designee, in consultation with the City Engineer, may also develop regulations and procedures in accordance with the Handbook to implement erosion control measures as needed.

1.115 Final Erosion Plan Approval Required. Prior to the issuance of a building permit for development subject to the provisions of Section 1.100, the City Engineer must approve a final Erosion Control Plan. To approve a final Erosion Control Plan, the City Engineer must determine that grading, clearing and excavation of

land in preparation of development has been consistent with the preliminary Erosion Control Plan and that the final Erosion Control Plan conforms in all significant aspects to the preliminary Erosion Control Plan. Final Erosion Control Plans that differ in one or more significant aspect to the preliminary Erosion Control Plan must be approved by the City Council.

- 1.116 Plan Implementation Requirements. An approved Erosion Control Plan shall be implemented and maintained as follows:
- A. Plan Approval Prior to Clearing or Grading. No grading, clearing, or excavation of land requiring an Erosion Control Plan shall be undertaken prior to approval of a preliminary Erosion Control Plan. Erosion control measures shall be installed prior to any stripping or excavation work.
 - B. Implementation. The developer shall implement the measures and construct facilities contained in the approved Erosion Control Plan in a timely manner and consistent with the following:
 - 1. During active construction, the developer shall inspect erosion control measures daily during rainy periods. In all cases, the developer shall be responsible for maintenance, adjustment, repair and replacement of erosion control measures to ensure that they are functioning properly without interruption.
 - 2. Eroded sediment shall be removed immediately from pavement surfaces, off-site drainage inlets, ditches and culverts. In the event that sediment is inadvertently deposited in a wetland, stream or lake, the developer shall immediately contact the City Engineer and coordinate remedial actions with the City.
 - 3. Water containing sediment shall not be flushed into a surface water management facility, wetlands or streams without first passing through an approved sediment filtering facility or device.
 - 4. The developer shall maintain written records of all site inspections of erosion control measures that shall be provided to the City Engineer upon request.
 - 5. In addition, the developer shall call for City inspection, prior to the foundation inspection for any building, to certify that erosion control measures are installed in accordance with the Erosion Control Plan.
 - C. Correction of Ineffective Measures. If the facilities and techniques approved in the Erosion Control Plan are not effective or sufficient to meet

the purpose of this section, based on an on-site inspection, the City Engineer may require a revised plan.

1. The revised Erosion Control Plan shall be provided within five (5) working days of written notification by the City Engineer.
2. The developer shall implement fully the revised plan within five (5) working days of approval by the City Engineer.
3. In cases where serious erosion is occurring, the City Engineer may require the developer to install interim control measures immediately, before submittal of the revised Erosion Control Plan.

D. Additional Standards. The following additional standards shall apply:

1. Construction between stream banks shall be prohibited unless absolutely necessary to construct required public facilities.
2. Pollutants such as fuels, lubricants, bitumens, raw sewage, and other harmful materials shall not be discharged into or near lakes, rivers, streams, or impoundments, and shall be properly stored and disposed.
3. Discharge of water into a stream, lake, wetland or impoundment shall not result in altering the temperature of the water body enough to affect aquatic life.
4. All sediment-laden water from construction operations shall be routed through stilling basins, filtered, or otherwise treated to reduce the sediment load.

E. Storage. All erodible or toxic materials delivered to the job site shall be covered and protected from the weather and stored according to appropriate health and safety guidelines.

1. Such materials shall not be exposed during storage.
2. Waste material, rinsing fluids, and other such materials shall be disposed of in such a manner that pollution of groundwater, surface water, or air does not occur.
3. In no case shall toxic materials be dumped into drainage ways or onto land.

F. Contaminated Soils. Where the construction process reveals soils contaminated with hazardous materials or chemicals, the developer shall

stop work immediately; ensure that no contaminated material is hauled from the site; remove the work force from the contaminated area; leave all machinery and equipment; secure the area from access by the public until such time as a mitigation team has relieved them of that responsibility; notify the City of the situation upon its discovery; and prohibit employees who may have come in contact with the contaminated material from leaving the site until released by the Emergency Response Team.

G. Duration of Maintenance. Continuing maintenance after development pursuant to the Erosion Control Plan, including re-vegetation of all graded areas, shall be the responsibility of the developer, subsequent developers or property owners.

1. Erosion control measures shall be maintained during construction and for one (1) year after development is completed.
2. The City Engineer may, upon finding that soils are completely stabilized, reduce this period.

1.117 Surface Water Management Provisions. Woahink and Siltcoos Lakes and tributaries are vitally important to the quality of life and the health, safety and welfare of Dunes City residents. Special surface water management facilities, designed in accordance with the Portland (Oregon) Stormwater Management Manual, may be required for developments draining into Woahink Lake, Siltcoos Lake, or their tributaries.

A. Applicability. The City Engineer shall require surface water management treatment or detention facilities for developments that qualify under any of the following:

1. Any part of the development lies within the Dunes City Drinking Water Protection Area, as identified by the Dunes City Drinking Water Source Assessment and Potential Planning Strategy study (December 2002) or, if the development lies outside this area, is ten (10) acres in size or larger.
2. The development occupies one acre or more of slopes twelve (12) percent or greater.
3. The development will cause degradation of water quality in the receiving water body without detention or treatment.
4. The development involves paved parking areas (exclusive of single family and two-family residences), fuel storage or dispensing areas, vehicle wash areas, or vehicle maintenance or dismantling areas.

- B. Responsibility and Treatment Options. Surface water management facilities for major developments shall be required for purposes of minimizing water quality impacts on Woahink Lake, Siltcoos Lake, and their tributaries, prior to deposition into natural drainage ways.
1. Surface water management facilities shall be designed and constructed by the developer to ensure that stormwater runoff is treated on-site prior to discharge.
 2. Treatment may include infiltration devices, grassy swales, treatment ponds or other methods approved by the City, consistent with the Portland (Oregon) Stormwater Management Manual.
- C. Placement of Surface Water Management Facilities. Placement of surface water management facilities shall be limited as follows:
1. Surface water management facilities shall not be constructed within an existing or created wetlands unless a mitigation plan is approved by the City, the Oregon Division of State Lands, and the Army Corps of Engineers.
 2. Surface water management facilities shall not be placed on land with slopes of 12 percent or greater, within 50 feet from the top of the bank of a stream or **lake**, or within a defined floodway area unless the applicant can demonstrate that no other reasonable alternative exists.
 3. A surface water management facility may be constructed within the 100-year flood hazard area provided that the site is (a) outside the area covered by the 25-year flood event, and (b) the surface water management facility effectively and exclusively uses native plant species.
 4. Where the City Engineer determines that a more efficient and effective regional site exists within the sub-basin, the surface water management facility may be constructed off-site.
- D. Surface Water Management Facility Standards. The design and function of required surface water management facilities shall be determined based on the recommendations of the Portland (Oregon) Stormwater Management Manual.
1. The preliminary subdivision, partition or planned unit development application shall include plans and a certification prepared by a professional engineer registered in Oregon that the proposed

surface water management facility(s) have been designed in accordance with the Portland (Oregon) Stormwater Management Manual.

2. The plan shall specifically consider source control of pollution (oil and water separators), runoff treatment, stream bank erosion control, wetland impacts, impacts on water quality sensitive areas, and off-site analysis and mitigation.
3. A long-term (20-year) operation and maintenance plan shall be required. This plan shall document how and by whom the surface water management facility(s) will be maintained.
4. In all cases, runoff from impervious areas used for repair, cleaning, refueling, storing or servicing of vehicles and machinery shall be treated on-site to remove oil, grease and other chemicals.

1.118 Security. After an Erosion Control Plan or Surface Water Management Facility is approved by the City Engineer and prior to construction or grading, the applicant shall provide a performance bond or other financial guarantee in the amount of 120 percent of the value of the erosion control and surface water management facilities necessary to stabilize the site and maintain water quality.

- A. Duration. The financial guarantee instrument shall be in effect for a period of at least one year for an Erosion Control Plan and at least two years for a Surface Water Management Facility and shall be released when the City Engineer determines that the site has been stabilized or the Surface Water Management Facility is operating as designed. All or a portion of the security retained by the City may be withheld for a period of up to five years beyond the one or two-year maintenance periods if it has been determined by the City Engineer that the site has not been sufficiently stabilized against erosion or the surface water management facility is not operating as intended.
- B. Conflict. Erosion control measures of this section are required to secure the public health, safety and welfare and shall supercede the more general provisions of the Dunes City Code where conflicts exist.

1.119 Penalties. Each violation of any provision of Section 1.100, or any failure to carry out the conditions of any approval granted pursuant to this Section, shall constitute an infraction subject to the enforcement provisions of Section 10.99 of the Dunes City Code.

- A. Additional Penalties. In addition to those penalties available under Section 10.99 of the Dunes City Code, the City Council may enforce the following penalties:

1. Direct that a stop work order be issued where erosion control measures are not being properly maintained or are not functioning properly due to faulty installation or neglect and the developer has not corrected the problem within a reasonable time after notice.
 2. Refuse to accept any development permit application, revoke or suspend any development or building permit, or deny occupancy of the subject property until erosion control measures have been installed properly and maintained in accordance with this Section.
- B. Responsible Person. The owner of the property from which the erosion occurs, together with any person or parties who cause such erosion, shall be responsible for mitigating the impacts of the erosion and for preventing future erosion.
- C. Legal Action. At the direction of the City Council, the City Attorney may institute appropriate action in any court of competent jurisdiction to enjoin development of a site or building project that is in violation of this Section, or to require conformance with this Section.