6115.0201 SPECIFIC STANDARDS; EXCAVATION.

Subpart 1. **In general.** In addition to compliance with the general standards in part 6115.0200, subparts 2 to 5, specific requirements shall be met for the activities described in subparts 2 to 7.

Subp. 2. **Excavations for beach development.** The existing site conditions will not provide a suitable beach using a sand blanket alone. When the proposal includes the installation of a beach sand blanket, the area to be excavated shall be consistent with the criteria for filling under part 6115.0190, subparts 2 to 5. The depth of excavation needed to reach a suitable beach stratum shall be the minimum depth necessary considering anticipated site maintenance and reasonable water depths for a beach.

Subp. 3. **Waterbasin excavations.** Excavations for improvement or enhancement of hydrologic and biologic conditions in all, or large portions of waterbasins:

A. A public need for the excavation has been established by local governmental resolution specifying the public interests to be improved or enhanced, except where the project is state sponsored.

B. The proposed project is intended to achieve one or more of the following public purposes:

(1) to improve navigation, swimming, and other recreational uses;

(2) to reduce winter fish-kill potential;

(3) sediment removal to eliminate a source of nutrients and/or contaminants.

C. The proposed excavation is part of an overall improvement or enhancement project based upon adequate background and field test data for which a comprehensive plan is submitted at the time of application detailing all of the following:

(1) Objectives to be accomplished, and an analysis of any alternative means considered to meet the objectives and the rationale for selecting excavation.

(2) Sufficient soil boring and bottom sampling data to evaluate sediment quality and bottom "seal" conditions. Where excavation is proposed on a waterbasin that is perched on an impervious stratum, soil borings must show that the proposed excavation will not rupture the impervious stratum.

(3) The methods, uses, and locations to be employed in excavating and disposing of excavated material consistent with the provisions of parts 6115.0190 to 6115.0192.

(4) Existing water quality data and provision for future water quality monitoring including any water returned to the waterbasin during the removal of excavated materials.

(5) A timetable which indicates anticipated yearly excavation areas and volumes of materials to be removed, plus the selected disposal methods, uses, and deposition locations for each excavation period.

(6) A detailed description of proposed excavation and disposal equipment and facilities, including, where applicable, the length of discharge pipe purchased or available for the project and the pumping characteristics of the equipment.

Subp. 4. **Excavations for navigation-related purposes.** Excavations for navigation-related purposes:

A. Access channels from shorelines for recreational craft. Excavations for accesses from shorelines to reach navigable depths shall not be allowed if access could reasonably be obtained through use of a dock to reach navigable depths, and prevalent wind, wave, and current conditions would not impair reasonable access to reach navigable depths.

When shoreline conditions and wind, wave, and current conditions preclude access to navigable depths, excavations for navigational access shall be allowed provided the access channel shall not exceed four feet in depth, more than 15 feet in bottom width, and will not extend to an offshore water depth greater than four feet.

B. Other navigational channels. Excavations shall be limited to the minimum depth and width necessary to allow reasonable use of anticipated watercraft.

Excavations to provide maintenance of navigational channel projects shall be limited to the length, width, and depth dimensions of the original channel.

Subp. 5. **Harbors and boat slips.** Harbors and boat slips:

A. Excavations for development of offshore or inland harbors or boat slips for the mooring of more than 25 watercraft or watercraft larger than 20 feet in length shall be restricted to those waters which have the following characteristics:

(1) waterbasins having areas of 1,000 acres or more;

(2) watercourses which are used for commercial or industrial navigational purposes.

B. Excavations for development of offshore harbors serving fewer than 25 watercraft shall be limited to those water areas where the location of the proposed offshore harbor would not create unreasonable obstructions to public use and navigation on the water involved. Unreasonable obstructions include any development which would result in threats to public health, safety, or welfare.

C. Excavations for development of private inland harbors or boat slips serving fewer than 25 watercraft or watercraft less than 20 feet in length shall be limited to those waters where:

(1) prevalent wind, wave, or current conditions along the shoreline where excavation is proposed are of a magnitude and frequency which precludes the use and maintenance of docks to moor watercraft. Determinations of magnitude and frequency which would inhibit use of docks shall be based on supporting facts including:

(a) the character of the water involved and its shoreline in relation to exposure to severe wind, wave, or current actions and the configuration and area of the water;

(b) the frequency of occurrence of storms producing severe winds and waves based on climatological data for the area; and

(c) the average number of days during each month of the navigational season when the shoreline is affected by severe winds, waves, or currents;

(2) the presence of lake bed and bank conditions would preclude the use and maintenance of docks and the conditions of the site and the number, type, or size of watercraft intended to be moored would preclude the development and use of on-land facilities, such as rollers, winch and track systems, sliderails, or other facilities which could be used to haul watercraft out of the water for on-land storage; or

(3) the proposed site is located in an area of the water body where offshore mooring or excavations or extensive dock development would create unreasonable obstructions to public use and navigation of the water body.

D. The width and length of boat slips shall not exceed 150 percent of the width and length of the anticipated watercraft and all authorized boat slips shall be oriented to maximize the degree of wave protection.

E. Excavations for development of inland harbors shall be limited to those waters described in item C and shall meet the following additional requirements:

(1) Requirements applicable to all commercial and industrial inland harbors:

(a) The mooring area of the harbor shall be compactly shaped in order to minimize the surface area excavated in relation to the number of mooring spaces to be provided and shall be located at an adequate distance from the shoreline to provide wave protection and prevent breakthrough.

(b) No branch or connecting channels shall be permitted extending laterally outward from authorized inland excavations.

(c) If practical, a "dogleg" shall be incorporated in the approach channel located between the mooring area and the shoreline to minimize visual impact from the water body and promote wave dissipation.

(d) The excavation shall not extend more than 200 feet inland from the public water unless evidence is provided to show that greater distances are required because of the dimensions of the watercraft to be moored.

(e) The methods, use, and deposition locations to be employed in disposing of excavated materials shall be consistent with the provisions of part 6115.0200, subpart 5, item B.

(2) An application for a permit shall contain plans, maps, and supporting data regarding proposed excavation site soil borings, ground water levels and characteristics, water quality, topography, drainage, and vegetation which shall substantiate that the proposed project must be reasonable and practical based upon geologic and hydrologic conditions including:

(a) quantity and quality of stream flow and local drainage at the proposed project site;

(b) water stagnancy problems including the capability of being flushed or drained;

(c) interference with stream flow or longshore drift;

(d) type of soil strata and underground formations in the project vicinity;

(e) protection of the water body itself in terms of reduced water supply, increased seepage or drainage, pollution, increased flooding, and other adverse hydrological impacts;

(f) adequate entrance openings;

(g) ample turning radius;

(h) adequate depth and size for the anticipated watercraft usage;

(i) adequate reduction of wave heights in mooring areas;

(j) proper harbor shape to reduce wave resonance;

(k) need for and feasibility of maintenance dredging;

(l) adequate height of perimeter wall;

(m) need for wave absorbers within the harbor; and

(n) bank stabilization by appropriate erosion control measures.

(3) Additional requirements applicable to specific types of harbors. Private inland harbors serving two or more single family residential riparian lots shall, if practical, be located along the mutual boundary of properties to be served.

Private inland harbors for proposed multifamily or cluster developments, residential planned unit developments, or for resorts, campgrounds, or other commercial purposes. The development plan shall be approved by the local governmental unit. The permit shall be of the title-registration type including a provision that the individual waterfront lots in the development have priority rights to the available mooring spaces thus obviating issuance of future permits for individual harbors for these lots. The harbor shall be appropriately sized, consistent with the number of watercraft to be served. For residential and commercial planned unit developments, the number of mooring spaces to be permitted shall be consistent with part 6120.3800.

Public inland harbor projects must be justified by:

(a) a public need for the proposed inland harbor established by local governmental resolution specifying public interests to be enhanced;

(b) the harbor shall be appropriately sized consistent with the demand for mooring facilities in the area and the number of watercraft to be served;

(c) the harbor shall be available for use by the general public; and

(d) the harbor may extend more than 200 feet inland provided the plans minimize the total length by which the public water is proposed to be extended in keeping with the number of watercraft to be served and the topography.

Subp. 6. **Excavations for fish and wildlife habitat improvement.** Excavation to restore or improve fish and wildlife habitat require plans showing the nature and degree of habitat to be benefited, and information showing that the project will not create other adverse effects such as flooding, erosion, sedimentation, or navigational obstructions.

Excavations in trout streams officially designated by the commissioner shall be allowed only if:

A. the amount, method, and location of the excavation will not result in increased water temperatures, cause excessive sedimentation in the stream, or destruction of fish habitat; and

B. there is no other feasible or practical alternative other than excavation.

Subp. 7. **Excavations in public watercourses.** Except as noted in part 6115.0200, subpart 4, a permit shall be required for any excavation in a public watercourse and shall

be subject to the following specific requirements in addition to the general requirements of part 6115.0200, subparts 2 to 5:

A. The watercourse capacity shall be sufficient to adequately convey normal runoff.

B. The watercourse bottom gradients shall be such that normal low flow velocities are nonerosive and the sideslopes shall be graded such that bank slumping is not a hazard. Where excavation will result in excessive bank erosion, energy dissipation structures, channel and bank protection, or other engineering measures shall be required.

C. The outlet shall be adequate in that it:

(1) sufficiently conveys the discharge waters from the area proposed for excavation;

(2) does not produce substantial increases in downstream overbank flooding; and

(3) does not produce downstream erosion hazards as a result of the watercourse excavation.

D. When projects involve widening or straightening which alters the watercourse banks, all sideslopes which contribute direct surface runoff into the authorized altered watercourse, and a strip of land along both sides of the watercourse, one rod wide or to the top of the spoil bank, whichever is the greater, shall be seeded and maintained in permanent grasses. No mowing of this grassed strip shall be allowed until after July 31 of each year.

E. The alignment and slope of the excavated channel shall be such as to provide a smooth transition between the existing and the excavated channel.

F. Disposal of excavated material from channel excavation shall be consistent with part 6115.0200, subpart 5, except where the original channel is allowed to be filled as part of the project.

G. No significant increase in flood damages will be permitted. Floodwater retardance structures may be required to minimize any increase in flood damage.

H. The applicant shall submit the names and addresses of landowners located immediately upstream, downstream, and adjacent to any proposed watercourse alteration resulting from excavation. In addition, the applicant shall submit the names and addresses of other landowners and occupants that the commissioner, after reviewing the plans for the proposed excavation, believes will have a substantial interest in the channel change or will be substantially affected by the watercourse alteration.

I. The preferred alternative to widening, deepening, or straightening a watercourse for control of flood waters is the construction of water impoundment structures

in upstream areas. Where impoundments are infeasible, impractical, or would result in adverse effects on health and safety or greater adverse environmental effects, the preferred alternative is the construction of flood bypass channels to convey high velocity flood flows.

Excavations in public watercourses for flood management purposes shall be allowed only where an upstream impoundment or a flood bypass channel is infeasible or impractical or excavation is the least damaging environmentally.

Excavations for widening, deepening, or straightening portions of watercourses shall be based on flood management plans which provide details on the relationship of the proposed excavation to management of flood flows for the entire watercourse and shall be consistent with state standards and state approved local standards for floodplain management including maximum use of nonstructural measures where feasible and practical.

J. Excavations shall be limited to the minimum extent necessary to facilitate construction of the road crossing and shall include provisions for adequate riprap or other bank protection measures to protect altered banks from erosion.

K. Excavations for construction of sediment traps or settling basins to control sedimentation and water quality shall be based on plans approved by the Pollution Control Agency or the local soil and water conservation district and shall be consistent with any state and local standards, regulations, and requirements.

L. Watercourse channel excavations to restore or improve fish and wildlife habitat shall require plans showing the nature and degree of habitat to be benefited, and information showing that the project will not create other adverse effects such as flooding, erosion, sedimentation, or navigational obstructions.

M. Watercourse channel excavations in trout streams officially designated by the commissioner shall only be allowed if:

(1) the amount, method, and location of the channel excavation will not result in increased water temperatures, cause excessive sedimentation in the stream, or destruction of fish habitat; and

(2) there is no other feasible or practical alternative other than channel excavation.

N. The straightening or realignment of a watercourse with a total drainage area, at its mouth, greater than five square miles shall only be permitted where the project will not result in increased downstream flooding, erosion, or sedimentation. Where it is proposed to straighten or realign a watercourse with a total drainage area, at its mouth, greater than

five square miles, the applicant may be required to submit appropriate hydraulic data. Such data may include:

(1) contributing watershed above the project;

(2) data for the flood of record;

(3) maximum observed high water level;

(4) flow data, based on the best available technology as follows:

(a) existing and proposed time of concentration;

(b) existing and proposed stage downstream;

(c) existing and proposed mean velocity downstream;

(5) certification that the data was prepared by a registered professional engineer.

O. The alteration of watercourses by straightening or realigning channels to facilitate adjacent land use shall be allowed only if the applicant provides evidence:

(1) that the alteration is reasonable, practical, and will adequately protect public safety and welfare; and

(2) that the alteration will involve a minimum of encroachment, change, or damage to the environment, particularly to the ecological system of the waterway.

P. All other proposals for excavations in public watercourses shall meet the general requirements of part 6115.0200, subparts 2 to 5 and the specific requirements of subparts 2 to 6 and shall require submission of supporting evidence as provided in items N and O.

Statutory Authority: *MS s 103G.315; 105.415*

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