

**MINNEHAHA CREEK WATERSHED DISTRICT
BOARD OF MANAGERS**

9. DREDGING RULE

**Adopted XXXX
Effective XXX**

1. POLICY. It is the policy of the Board of Managers to:

- a. Protect surface waters, backwater areas and wetlands next to or hydrologically connected to lakes to maintain stable shoreline; support vegetative diversity and integrity; and protect riparian and aquatic habitat;
- b. Minimize impacts from dredging in biologically productive and ecologically sensitive littoral zones to protect water quality and prevent invasive species proliferation;
- c. Recognize riparian rights of property owners while protecting public water resources.
- d. Preserve the natural appearance of shoreline areas.

2. APPLICABILITY.

- a. A District permit is required to dredge within the bed, or below the top of bank, of a public water or public waters wetland, except that a permit is not required to install, maintain or remove a utility structure when that work is subject to a permit under the Waterbody Crossings & Structures Rule.
- b. A permit applicant is responsible to obtain all required approvals from other public agencies including the Minnesota Department of Natural Resources (DNR) and, for dredging in Lake Minnetonka, the Lake Minnetonka Conservation District (LCMD). An applicant who has obtained a District permit under this rule may qualify to operate under DNR General Permit No. 2001-6009, in place of an individual DNR permit.
- c. Navigational dredging in Lake Minnetonka must meet the standards of the DNR, MCWD and LMCD Dredging Joint Policy Statement (April 1993), which is an attachment to this rule and incorporated by reference. Certain terms of the Joint Policy Statement are incorporated directly into this rule, below.
- d. Maintenance dredging by a public agency may qualify for an expedited general permit pursuant to section 7 of this rule.

3. PERMITTED DREDGING.

- a. Dredging is permitted only for one of the following purposes:
 1. To maintain an existing public or private channel to dimensions the District previously has approved;
 2. To implement or maintain a legal right of navigational access;
 3. To remove sediment that is a source of nutrients or other pollutants;
 4. To improve the wildlife or fisheries resources of surface waters; or
 5. By a public entity, for a public purpose.
- b. In evaluating an application under paragraph 3.a.1, the District will review evidence of historic dredging, including how recently the original dredging or subsequent maintenance occurred and the extent of recent navigational use.
- c. In evaluating an application under paragraph 3.a.2., the District will apply principles of riparian rights to determine whether the navigation sought is reasonable. This includes considering:
 1. The ecological sensitivity of the affected waterbody or wetland;
 2. The size, draft, speed, motorized status and other characteristics of watercraft historically used or proposed to be used in the area to be dredged;
 3. The size and restrictiveness of existing channels and bridge openings that may affect navigation; and
 4. The availability of other means to gain access, such as extending docks; purchasing, renting or leasing shore moorings; or anchoring watercraft away from shore moorings.
- d. The applicant may not dredge:
 1. To offset floodplain fill, or otherwise above the ordinary high-water level or into the upland next to the waterbody;
 2. Where the dredging would create a channel to connect backwater areas for navigation, or extend riparian rights to non-riparian land;
 3. Where the dredging would alter the natural shoreline or streambank;
 4. Where the dredging may affect the hydrology of an adjacent resource; or
 5. Where the dredged area contains a slope steeper than 3:1 (H:V) in a marina or channel, or 10:1 (H:V) near residential lakeshore.

4. STANDARDS.

- a. The application must consider other ways to achieve the purpose of dredging such as dock extension, aquatic nuisance plant removal without dredging, less extensive dredging in another area of the public water, or agreement with a neighboring property. The applicant must show that the proposed dredging is the means to resolve their need that has least impact. Impact to a Preserve wetland or other ecologically sensitive area must be minimal. For the purpose of this paragraph, "impact" means effect on water quality, ecology, groundwater protection, flood management and all other beneficial uses of water resources as described at Minnesota Statutes §103B.201.
- b. If dredging is to remove sediment that was transported into the waterbody, the plan must remedy the cause of sediment transport for the future, to the extent the applicant reasonably can do so.
- c. Dredging is limited to the minimum dimensions necessary to achieve the purpose. Maximum dredging width for navigation is 15 feet, unless a wider channel better protects water resources. Maximum dredging depth for navigation is as follows, except that the District may consider deeper dredging in accordance with paragraph 3.b, above:
 1. Within Lake Minnetonka: 924.6' for individual channels and mooring spaces, 923.6' for multiple user channels and mooring/maneuvering areas, and 921.6' for public channels maintained by Hennepin County.
 2. Within other waterbodies: Four feet below the ordinary high water elevation.
- d. Side slopes within dredged areas are to be 3:1 (horizontal to vertical), unless the District finds that substrate conditions warrant a steeper or gentler slope.
- e. Dredging may not occur between April 1st and June 30th, except that the District may allow dredging in a public water wetland during this period if the applicant is able to show that fish spawning does not occur in the wetland.
- f. The application must identify a spoil disposal site. The site must not be below the OHW of a public water or wetland, or in a floodplain absent flood storage replacement. The applicant must place and stabilize all spoils so that they will not be transported by reasonably expected high water or runoff.

5. HYDRAULIC DREDGING.

In addition to the standards of section 4, above, hydraulic dredging is subject to the following standards:

- a. Dikes must be of compacted earth and not exceed 5.5 feet in height at any point, with a minimum four-foot- wide top and side slopes not steeper than 2:1 (H:V). An alternative design is permitted but must be certified by a professional engineer registered in Minnesota. If the spoil containment has no outlet, it must have four times the calculated volume of solid material to be removed, and a minimum freeboard of one foot above the projected water surface elevation.
- b. The applicant must provide a copy of: (i) the Minnesota Pollution Control Agency (MPCA) spoils disposal permit or notification, and (ii) any sediment analysis performed.
- c. The applicant must submit a restoration plan that shows how they will retain sediments on site during operations, and how they will restore and revegetate the site. The plan must show final grades.
- d. Discharge from a spoil containment must meet MPCA turbidity and total suspended solids standards applicable to the receiving water. The applicant must monitor at least weekly and promptly forward results to the District.

6. SUBMITTALS.

The following must accompany the permit application. On written approval from District staff, the applicant may omit or modify specific items.

- a. Site plan showing property lines, delineation of the work area, existing elevation contours of the adjacent upland area, ordinary high water elevation, and [100-year high water elevation](#) (if available). All elevation must be reduced to NGVD (1929 datum).
- b. Profile, cross sections and topographic contours showing existing and proposed elevation and side slopes in the work area. Topographic contours must be at intervals of no more than 1.0 foot.
- c. For hydraulic dredging:
 1. Cross section of the proposed dike.
 2. Stage/storage volume relationship for the proposed spoil containment.
 3. Detail of any proposed outlet structure, with size, description and invert elevation.
 4. Stage/discharge relationship for any proposed outlet structure from the spoil containment.
 5. Site plan with the locations of any proposed outlet structure and emergency overflow from the spoil containment.
- d. Site plan with the proposed location of floating silt curtains.
- e. Support data:
 1. Description and volume computation of material to be removed.

2. Description of equipment to be used.
 3. Construction schedule.
 4. Location map of spoil containment.
 5. Erosion control plan for containment.
 6. Restoration plan for any proposed permanent on-site spoil containment with final grades, removal of control structure, and a description of site restoration and revegetation.
- f. Where dredging is to remove sediment that is a source of nutrients or other pollutants, or where it may cause increased seepage or result in subsurface drainage, the applicant must submit at least two soil boring logs extending at least two feet below the proposed work elevation.

7. GENERAL PERMIT.

- a. A public applicant may obtain a general permit to remove non-native sediments at a stormwater conveyance outfall into a public water or public water wetland. In place of the submittals listed in section 6, above, the applicant must submit the following:
 1. Location of dredging and estimated volume of dredged material.
 2. Basis to determine dredging depth, in the form of approved plans or post-dredge elevation data from prior dredging, core samples establishing the native bed elevation, or a narrative describing other method to determine dredging depth.
- b. An application under this section is not subject to section 6 or 8 of the District's procedural Requirements Rule. When the District has confirmed in writing receipt of the applicant's submittal, the general permit is deemed granted and dredging may occur as described.
- c. A permittee operating under a general permit must conduct activity in accordance with the following terms:
 1. The permittee may remove only sediment identified as non-native material accumulated due to stormwater runoff or erosion.
 2. Dredging may not materially change the elevation or contour of the bed of the affected waterbody.
 3. Silt curtain must be used to contain sediment.
 4. Disturbed bank or upland, including vegetation, must be restored to its prior condition.

8. FAST-TRACK PERMIT.

- a. An applicant dredging to maintain an existing navigational channel or access may obtain an expedited permit. In place of the submittals listed in section 6, above, the applicant must submit prior District-approved plans establishing channel dimensions, along with an erosion control and restoration plan. The application is not subject to section 6 or 8 of the District's Procedural Requirements Rule.
- b. The District may withhold fast-track approval if an application raises considerations that, in the judgment of District staff, should be addressed through ordinary permit review.

9. FINANCIAL ASSURANCE.

A bond, letter of credit or cash escrow in accordance with the District's Financial Assurances Rule is a condition of permit issuance.

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Lake Minnetonka Dredging Joint Policy Statement

This Joint Policy Statement is made and entered into this 28th day of April, 1993, by and between the MINNESOTA DEPARTMENT OF NATURAL RESOURCES, an agency of the State of Minnesota and hereinafter referred to as "DNR"; the MINNEHAHA CREEK WATERSHED DISTRICT, a body politic located in the Counties of Hennepin and Carver, incorporated under the laws of the State of Minnesota, and hereinafter referred to as "MCWD"; and the LAKE MINNETONKA CONSERVATION DISTRICT, a body politic located in the Counties of Hennepin and Carver, incorporated under the laws of the State of Minnesota, and hereinafter referred to as "LMCD".

I. BACKGROUND AND PURPOSE.

Under Minnesota Statutes Section 103G.245, no one may excavate the beds of public waters without a written permit from the DNR commissioner. See Minnesota Rule 6115.0200. As a watershed district, the MCWD has as one of its statutory purposes "regulating improvements by riparian land owners of the beds, banks, and shores of lakes, streams, and marshes by permit or otherwise in order to preserve the same for beneficial use." Minn. Stat. §103D.201, subd. 2(11). See also MCWD Rules E and K. The LMCD, subject to the provisions of Minnesota Statutes 103B, 103D, 103E, 103F, 103G and the rules and regulations of the respective agencies and governing bodies vested with jurisdiction and authority thereunder (including DNR and MCWD), has statutory authority to regulate the types of boats permitted to use Lake Minnetonka and set service fees; to regulate, maintain, and police public beaches, public docks and other public facilities for

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- 3) **Public Channels - Seven (7) feet is maximum depth to allow navigation in public channels.**
- 4) **Deep Draft Watercraft - Seven (7) feet is maximum depth to allow mooring and navigation in portions of multiple-user mooring areas suitable and approved for deep draft watercraft which meet Paragraph III., Subd. B, Justification/Alternative 1 through 6.**

The maximum dredging depths for items 3) and 4) above, therefore, shall be no greater than 7 feet below the Gray's Bay dam low control elevation, or 921.6 feet (NGVD, 1929).

IV. ADMINISTRATIVE PROCESS.

- A. **DNR will implement this Joint Policy Statement through its protected waters permit program (M.S. 103G.245) and associated rules (Minn. Rules 6115.0010-6115.0280).**
- B. **MCWD will implement this Joint Policy Statement through its permit system (M.S. 103D.201) and associated rules (MCWD Rule E).**
- C. **LMCD will comment on DNR and MCWD permit applications within applicable time allowances.**
- D. **Appeals. Persons aggrieved by agency decisions affected or influenced by this Joint Policy Statement shall have rights to appeal such decisions by processes separately described for DNR protected waters permits and MCWD permits.**

- 3) Individual and multiple-user channels shall have a bottom width no greater than 15 feet with sideslopes of 3:1 (horizontal:vertical), unless all inclusive justification is shown that these dimensions will not provide reasonable use for the anticipated watercraft.

Historical permits and channel dimensions may provide part of the evidence for the justification argument, but are not adequate proof for need.

D. DEPTH CRITERIA.

The DNR rules allow a maximum dredging depth of 4 feet or to the "minimum depth and width necessary to allow reasonable use of anticipated watercraft" (Minnesota Rules, part 6115.0201, subpart 4, Items A and B). For purposes of this Joint Policy Statement, the following dredging depth criteria are established:

- 1) Individual Channels and Moorings - Dredging depths shall be no greater than 4 feet below the Gray's Bay dam low control elevation, or 924.6 feet (NGVD, 1929).
- 2) Multiple-User Channels and Moorings - Common access channels and marinas generally reduce the environmental impacts as opposed to numerous individual channels. Therefore, dredging depths shall be no greater than 5 feet below the Gray's Bay dam low control elevation, or 923.6 feet (NGVD, 1929).

- 3) Natural lake bottom contours surrounding the site and in the vicinity.
- 4) Size and restrictiveness of existing channels and bridge openings which may affect navigation.
- 5) Availability of alternative means of gaining access such as:
 - a. extension of docks;
 - b. purchase, rent, or lease of other shore moorings;
 - c. anchoring watercraft away from shore moorings.
- 6) Lake bottom characteristics; wind, wave, and ice conditions; and other features that affect mooring of watercraft.

C. OTHER DREDGING CRITERIA.

In identifying the minimum environmental impact solution, all due consideration must be given to the following criteria as well as all applicable rules of the MCWD and ordinances of the LMCD.

- 1) It shall be demonstrated that navigable depths cannot be reasonable attained by such alternatives as described in Section III.B.5 of this Joint Policy Statement.
- 2) The bottom width and sideslopes of the areas to be dredging shall be limited to the minimum necessary for reasonable use of anticipated watercraft. The proposed location of any multiple-user channel shall provide reasonable access to all users while minimizing environmental impacts.

bottom contours surrounding a site, existing channel depths, bridge openings, etc. Therefore, it follows that some areas of the lake will not be usable by all sizes of watercraft at all times. During extremely low lake level periods, the lake would become again a series of individual basins between which navigation may become restricted or impossible.

Based on the long-term average water levels for Lake Minnetonka, it is hereby determined by the DNR, MCWD and LMCD that the Gray's Bay dam low control elevation of 928.6 feet (NGVD, 1929) is appropriate as the baseline for measuring dredging depths. This reference to the Gray's Bay low control elevation is for dredging depths only and not to be confused with the statutory limit of DNR jurisdiction which is the ordinary high water level of 929.4 feet (NGVD, 1929).

B. JUSTIFICATION/ALTERNATIVES.

In order to justify dredging as a means of improving navigational access, dredging must be found to be the minimum environmental impact solution to achieve reasonable navigation. In evaluating reasonable navigation, an applicant proposing dredging must document in writing (along with supporting maps, plans, photographs, soil borings, etc.):

- 1) Size and draft of watercraft historically moored and/or proposed for mooring at the site.
- 2) Size and draft of watercraft moored in the immediate vicinity of the site.

is intended to increase, decrease, or in any way affect the powers or jurisdiction granted to any of them by statute or rule.

II. DEFINITIONS.

"Individual Channel" - Navigational access channel from the shoreline into a main body of Lake Minnetonka serving one lot.

"Mooring" - A facility for the storage of a single watercraft.

"Multiple-User Mooring" - A minimum of five mooring spaces that are immediately adjacent to each other.

"Multiple-User Channel" - Navigational access channel from the shoreline into a main body of Lake Minnetonka serving four or more adjacent lots, each lot independently owned.

"Public Channel" - Navigational channels generally connecting bays of Lake Minnetonka which have been historically maintained by the Hennepin County Department of Public Works.

III. SPECIFIC DREDGING DEPTH CRITERIA

A. BACKGROUND.

Lake Minnetonka is actually a series of individual lakes which were connected by channels and inundated by the construction of a dam to control water levels. Since records have been kept (starting in 1906) the lake has fluctuated from a record high elevation of 930.51 feet (September 14, 1951) to a record low elevation of 921.78 feet (December 13, 1937). In many situations, the ability to gain navigational access is controlled by natural features such as the lake

is the most biologically productive and sensitive portion of a lake. Dredging can disturb the sensitive ecosystem and damage plant and animal life. In addition, dredging can effectively cultivate areas and provide a seed bed for the invasion of expansion of stands of purple loosestrife and Eurasian Water Milfoil (both undesirable exotic plants). In areas where a clay or muck bottom retard seepage of water from the lake, dredging can disturb this barrier and may result in increased seepage. Dredging can also materially and adversely impact water quality by disturbing and suspending bottom sediments, which frequently act as sinks for many aquatic contaminants, including nutrients, trace metals, and organics. Nutrient release from resuspended sediments has a stimulatory effect on algal growth in the lake, and biochemical oxygen demand from the release of these nutrients can reduce concentrations of dissolved oxygen and in turn adversely affect fish populations. Improper disposal of dredging spoils in inappropriate locations or in an unsound manner can reduce wetland habitat and stormwater storage, increase rates of runoff to downstream receiving bodies, and encourage the reintroduction of contaminated sediment into other water bodies.

Dredging policies have a direct impact on recreation and navigation use on Lake Minnetonka; many of the alternatives to dredging, such as dock extension, installation of floating docks, or alternative dock locations require the review and approval by the LMCD. Accordingly, the DNR, MCWD, and LMCD wish to enter into this Joint Policy Statement so that there is a common statement of policy for navigational dredging on Lake Minnetonka. Nothing in this Joint Policy Statement

access to the lake within the territory of the municipalities; to limit by rule the use of the lake at various times and the use of various parts of the lake; to regulate the construction, installation and maintenance of permanent and temporary docks and moorings consistent with federal and state law; to regulate the construction, configuration, size, location and maintenance of commercial marinas and their related facilities including parking areas and sanitary facilities, pursuant to 1967 Minnesota Laws, Chapter 907, Section 3. See also 1969 Minnesota Laws, Chapter 272, Section 2; LMCD Code of Ordinances.

The DNR's purposes in regulating dredging are to limit the excavation of materials through dredging in order to: preserve the natural character of Lake Minnetonka and its shoreland; minimize encroachment, change or damage to the environment, particularly the ecosystem of the lake; and control the deposition of materials excavated from Lake Minnetonka and protect and preserve the waters and adjacent lands from sedimentation and other adverse physical and biological effects. See Minnesota Rule 6115.0200, subpart 1.

The purposes of the MCWD's regulation of dredging are to preserve the natural appearance of shoreline areas, recreational, wildlife and fisheries resources of surface waters, and surface water quality. See MCWD Rule E(1).

Based upon the experience and expertise of the DNR and MCWD in regulating dredging, the parties find that dredging of the lake bottom's littoral zone (that part of the lake less than 15 feet deep) can result in several negative impacts. Since sunlight can reach the lake bottom and support the plant life, the littoral zone

- E. Enforcement. Persons, corporate entities, contractors, or other entities that may violate the specific Dredging Depth Criteria stated in Section III of this Joint Policy Statement shall be subject to appropriate enforcement measures separately described and in accordance with the DNR protected waters permit program and the MCWD rules.
- F. DNR and MCWD will include a statement during the respective permit application and review processes for regulated dredging on Lake Minnetonka as follows: "This application is subject to the dredging standards of the DNR, MCWD and LMCD Dredging Joint Policy Statement."

Minnesota Department of Natural Resources *Kurt Lamm*

Title: Director, Division of Waters

Date: April 28, 1993

Minnehaha Creek Watershed District *Ch. [Signature]*

Title: Acting President

Date: 4-28-93

Lake Minnetonka Conservation District *David H. Cochran*

Title: Chair

Date: April 28, 1993

Gregory D. Stormen

Title: Executive Director

Date: April 28, 1993