

STATE OF MINNESOTA  
OFFICE OF ADMINISTRATIVE HEARINGS

FOR THE MINNESOTA DEPARTMENT OF NATURAL RESOURCES  
AND THE MINNESOTA WATER RESOURCES BOARD

In the Matter of the Application by J. Don  
Wurdeman to Dredge a Boat Access Channel at  
Lots 3 and 4, 7th Addition to Breezy Point  
Estates, in Pelican Lake, Crow Wing County

FINDINGS OF FACT,  
CONCLUSIONS AND  
RECOMMENDATION

The above-entitled matter came on for a consolidated hearing before Administrative Law Judge Richard C. Luis at the Crow Wing County Social Services Building in Brainerd on August 6, 1986. The record closed on September 2, 1986.

A.W. Clapp III Special Assistant Attorney General, Room 200, 520 Lafayette Road, St. Paul, Minnesota 55101, appeared on behalf of the Department of Natural Resources ("Department", "DNR"). Thomas R. Borden, Esq., P.O. Box 411, Brainerd, Minnesota 56401, appeared on behalf of the Thirty Lakes Watershed District ("District", "Thirty Lakes"). J. Don. Wurdeman ("Appellant", "Applicant"), 8206 Bryant Avenue South, Bloomington, Minnesota 55420, appeared on his own behalf. The Minnesota Water Resources Board was represented at the hearing by a four-person panel, who appeared in a neutral capacity and participated in the examination of witnesses. The Board panel members were: Board Members Marlin Rieppel and Erika Sitz; Dan Steward, Staff Hydrologist, 500 Lafayette Road, St. Paul, Minnesota 55146; and Dwight S. Wagenius, Special Assistant Attorney General, 1935 W. County Road B2, Roseville, Minnesota 55113.

Notice is hereby given that, pursuant to Minn. Stat. 14.61 the final decision of the Commissioner of Natural Resources shall not be made until this Report has been made available to the parties to the proceeding for at least ten days, and an opportunity has been afforded to each party adversely affected to file exceptions and present argument to the Commissioner. Exceptions to this Report, if any, shall be filed with Joseph N. Alexander, Commissioner, Department of Natural Resources, 520 Lafayette Road, St. Paul, Minnesota 55155.

FURTHER notice is hereby given that, pursuant to Minn. Stat. 14.61 the final decision of the Minnesota Water Resources Board shall not be made until this Report has been made available to the parties to the proceeding for at least ten days, and an opportunity has been afforded to each party adversely affected to file exceptions and present argument to the Board. Exceptions to

this Report, if any, shall be filed with Melvin A. Sinn, Executive Director, Minnesota Water-Resources Board, 500 Lafayette Road, St. Paul, Minnesota 55146.

#### STATEMENT OF ISSUE

Whether the Applicant should be granted a permit to dredge a 50'x50' portion of accumulated silt and vegetation, ranging in depth from 5 inches to over 18 inches, on the bottom of Pelican Lake out from the shoreline of Lot 4, Seventh Addition to Breezy Point Estates, in order to improve recreational-navigational access to his property.

Based upon all of the proceedings herein, the Administrative Law Judge makes the following:

#### FINDINGS OF FACT

1. In 1963, J. Don Wurdeman and his wife, Phyllis, purchased Lots 3 and 4 of the Seventh Addition to Breezy Point Estates, located on the northwest shore of "Big" Pelican Lake in north central Crow Wing County. The Lake is large -- 8500 acres. The Lots are situated approximately 3/8 of a mile across a small bay from Breezy Point Resort and Marina. The Lots are 285 feet deep, with a county road connecting to the rest of the Breezy Point development forming the landward boundary. Approximately 175 feet of the Lots' depth is relatively flat, wooded land straight back from lakeshore, and the other 110 feet are above a 15 to 20 foot embankment overlooking the bay. The lakeshore is heavily developed for resort and other recreational purposes around all of Pelican Lake.

2. After obtaining a building permit in 1974, the Wurdemans, in 1976-77, built a cabin and garage on the high ground of Lots 3 and 4. These buildings constitute their vacation home, which they occupy every other weekend in the summer and for three weeks each summer when Mr. Wurdeman is on vacation from his employment as journeyman lithographer in the Twin Cities. The family also uses the "cabin" on occasional weekends in the winter when they return to the area for snowmobiling.

3. The Wurdemans own a 16-foot Larsen "runabout" motorboat, which boat is equipped with a 115-horsepower engine, for boating and waterskiing in Pelican Lake. The boat requires 24 inches of open water for its propeller to operate free from obstruction when the propeller is in a "straight down" position. Nineteen inches of open water is needed when the propeller is tilted up.

4. The lake bottom off the Wurdemans' Lots consists of several inches to

over one foot of "muck" or silt, which material is fine-textured and "fluffs" up to create a murky, brown-black sediment with water when it is disturbed by excessive wave action or propeller wash. This "muck" layer is covered by a several-inch thick layer of vegetative "mat" (mostly submergent aquatic weeds). That lake bed condition extends from the shoreline out from the Wurdemans' property (and that of their neighbors on the west shoreline in this part of the Lake) for over 300 feet.

5. The lake bottom spreads out and down from the shore in the Wurdemans' part of the Lake in a very gradual manner. At 50 feet to 60 feet from the shore of Lot 4, the water depth from the surface to the top of the "muck" varies from 18-inches to just over two feet, depending upon seasonal fluctuation of the lake level, during "wet" years like 1986. At 70 feet to 75

feet, the depth to the top of the "muck" is approximately two feet to just over that, and it slopes down to between 2.5 feet and 3 feet at 150 feet from Shore to approximately three feet at 200 feet from shore.'

6. The Appellant has always had a difficult time launching his boat because of interference with his propeller from the vegetation and/or "muck" that lie on lake bed near his shore. His neighbors to the north, Leonard and Armella Wahl, own a permanent, 50-foot dock where Wurdeman moors his runabout, but it is necessary for him to row or pole the boat out into the Lake from the end of the dock before he can drop his propeller. Upon returning to the dock, Wurdeman must shut off his motor and coast, row or pole to the dock.

7. The Wurdemans own a 64-foot long portable or "roll-in" dock which they used only in 1984, a dry summer when the lake surface was low. The "roll-in" dock served the Wurdemans no better than their neighbors' permanent 50-foot dock does now because the lake bottom drops off very little between 50 feet and 64 feet from shore and because the dock had to be rolled through muck exposed above the shoreline (because the lake surface was low), as well as below the surface, which was a physically demanding and tedious process.

8. The west side of the bay shore on which the Wurdemans' Lots lie is fringed by cattails. The natural cattail growth extends - out from shore 50 feet to 90 feet in the Appellant's immediate-vicinity. Shore owners have gained access to the bay by removing cattails directly out from their land, forming a number of little "harbors". Most of this cattail removal activity (including that done by the Wurdemans) occurred prior to 1985, when no permit was required to remove that quantity of emergent vegetation.

9. The bay on which the Applicant's Lots are situated, known locally by some as "Mud Bay", is heavily trafficked by boats. Most of the traffic comes from two major generation points: (1) Breezy Point's Marina, 3/8 of a mile across from the bay to the southeast, and (2) a public access boat launch 300 feet south of the Wurdemans' Lot 3. One-quarter mile to the east of Lots 3 and 4 is an island (formerly a peninsula) which keeps all boat traffic within the bay, except for navigation channels that connect the bay to the Lake. The open water south of the island, which is above the former peninsula extending northeast from Breezy Point's Restaurant and Marina, is too shallow for navigation. Therefore, all of the traffic which generates from the two main origin points must pass by the Wurdeman Lots to get out into the main body of "Big" Pelican Lake.

10. Boaters and waterskiers generally navigate their craft on the east (island) side of the bay. Along the west (Wurdeman-Wahl) shore, the natural cattail barrier generally keeps the boat traffic clear of the "harbors" and docks of shoreline owners.

Mr. Morreim of the DNR believes that this cattail barrier would allow Wurdeman to extend a dock 80 feet out from shore without presenting a hazard to boat traffic and waterskiers because the cattail growth around the "harbor" in front of Lot 4 will serve to keep such intruders much farther off shore than the end of the dock will reach.

'These depths are rough averages of measurements made by DNR Area Hydrologist Ron Morreim on July 29 and August 6, 1986.

11. Some boaters and waterskiers travel along the west (Wurdeman) side of the bay. This traffic is light in comparison to traffic on the east side of the bay, but the total waterborne traffic in the bay is so heavy that even a small percentage of it can be "significant" in terms of absolute numbers.

12. The Wurdemans do not wish to attempt to solve their recreational access problems by extending a dock 80 feet off shore (as suggested by the DNR), for two reasons: (1) the water depths at that point (24 inches to 28 inches to the top of muck) are still too shallow for "full propeller" boating, given the presence of several inches of vegetative mat on top of the muck', and (2) an 80 foot dock sticks out into the lake so far that it represents a hazard for boaters and waterskiers.

The second consideration noted in the preceding paragraph is of paramount importance to the Wurdemans. They are concerned that, the further they extend a dock, the more likely it is that a skier or boater will carelessly run into it. Breezy Point's Restaurant and Marina draws boat traffic day and night, and many of the boaters consume alcohol. It is physically possible for a drunken boater, or a waterskier playing "chicken" with an extended dock, to swing into the Wurdemans' "harbor" despite the presence of the natural cattail "barrier", and the likelihood of such an act resulting in an accident increases as the exposure to the hazard increases (with a further extension of the dock from shore).

13. On April 1 and May 25, 1985, Mr. Wurdeman applied for a permit from the DNR and for a permit from the Thirty Lakes Watershed District, respectively, to pump out a 50' x 50' area of silt and vegetation from the front of his Lots.

The District denied his application on June 20, 1985, because it ruled that there was ample water from the lake to land for docking a boat.

The DNR issued its denial of Wurdeman's permit application on October 21, 1985, citing two reasons: (1) because Minn. Stat. 105.42, subd. 1a requires that a DNR permit will be issued only if the Applicant's project conforms to the local water resources management plan. Since the District had earlier denied the permit application, it was reasoned that Wurdeman's project did not so conform; and (2) Minn. Rules 6115.0201', subp. 4A prohibits excavation for recreational access channels from shorelines to navigable depths if the access can reasonably be obtained through the use of a dock to reach navigable depths.

The Wurdemans appealed the permit denials from DNR and the District,  
and  
the two matters were consolidated for this further hearing process.

2It is noted that boating can likely be done with the Appellant's boat  
at that depth if he keeps his propeller tilted so that it can operate in 19  
inches of open water, although the vegetative mat may still interfere.

'The permit denial incorrectly cited this rule as .0200  
but the Appellant has not raised this issue.

14. Both the DNR and the District fear that the area dredged by Wurdeman if he gets his permit, will simply fill-in again because of the high amount of wave action and propeller wash in the area, which will push sediment and "muck" from the undredged surrounding lake bed into the "trough" created by removal of the vegetation and mucky silt. When the silt fills back in, the dredging process will have to be repeated, and this frequent maintenance activity (every couple of years) could disturb the lake bed enough to accelerate the growth of nutrients and eutrophication (reducing the dissolved oxygen) in the Lake.

15. Both the Wurdemans and the Wahls have burned out several boat motors from operating them near their shorelines on Pelican Lake. This phenomenon has occurred because the motors' pumps have become clogged with vegetation and silt from operating the boats near the shoreline areas.

16. Mr. Wurdeman wants to be issued a permit to pump out the silt with a "Gold Dredge Pump", a device produced by the Keeney (ph) Engineering Company of California that would, he believes, suction out the mucky sediment and deposit it on land with a minimum of potential disruption, thus lessening the creation of nutrients. The pump works along the lines of a Venturi tube, employing Bernouli's theory of fluids in motion, whereby water forced through a narrow tube in the top of a chamber can create a vacuum in the wider tube below, which vacuum acts to suction out the lake bed material. Such machines, employing the above-described technique, are used in rivers of Northern California to mine for gold.

In the alternative, the vegetation and sediment can be removed mechanically. The most common way this has been done on the shore of Pelican Lake has been by dragging bed springs along the lake bottom. This technique is very arduous and can be dangerous if the wires snap or the springs break. The Wurdemans employed that method to dredge a portion of the lake bed off their shore in the early 1980s, and a small portion of the "hard bottom" (no vegetation or silt) still remains.

Based upon the foregoing Findings of Fact, the Administrative Law Judge makes the following:

#### CONCLUSIONS

1. The Administrative Law Judge, Commissioner of Natural Resources, and Water Resources Board have jurisdiction in this matter.

2. The Department of Natural Resources and Water Resources Board gave proper notice of the hearing and all relevant substantive and procedural requirements of law and rule have been fulfilled.

3. Any of the foregoing Findings of Fact which are more properly designated as legal Conclusions are hereby adopted as such.

4. Pelican Lake is a public water under Minn. Stat. 105.37, subd. 14.

5. The accumulated vegetation and silt below the water surface off the shore of the Appellant's property makes it impractical for him to attempt to navigate his boat within approximately 100 feet from his shore line.

6. An extension of a dock 80 to 100 feet out from the Appellant's shoreline is unreasonable and, in effect, precluded because an 80 to 100 foot dock constructed at that point would present a hazard to boaters, waterskiers and other users of the navigation channel east of the Appellant's shoreline.

7. Allowing the Appellant to excavate a navigational access channel in conformance with the standards of Minn. Rule 6115.0201, subp. 4A would be consistent with the Overall Plan and Rules and Regulations of the Thirty Lakes Watershed District and with Minn. Stat. 105.42, subd. 1a, 105.45 and 116D.04, subd. 6. Such an excavation is reasonable, practical and will adequately protect public safety and promote the public welfare.

Based upon the foregoing Conclusions, the Administrative Law Judge makes the following:

#### RECOMMENDATION

IT IS HEREBY RECOMMENDED that the Commissioner of Natural Resources and the Water Resources Board grant J. Don Wurdeman permits to excavate vegetative matter and silt from the shoreline in front of Lot 4, Seventh Addition, Breezy Point Estates in Crow Wing County, such excavation to consist of a channel with a maximum width of 15 feet, commencing at the shoreline and extending in an easterly direction in Pelican Lake a maximum distance to be determined by that distance from shore where, after excavation of the vegetation and silt, a "hard bottom" depth of four feet is attained.

Dated this            day of September, 1986.

RICHARD C. LUIS  
Administrative Law Judge

#### NOTICE

Pursuant to Minn. Stat. 14.62, subd. 1, the agencies are required to serve its final decision upon each party and the Administrative Law Judge by first class mail.

Reported: Taped

#### MEMORANDUM

There are no statutes or rules prohibiting removal of submergent (underwater) vegetation, so long as the "channel" from which the vegetation is removed does not exceed 25 feet in width.



Minn. Rule 6115.0201, subp. 4A allows excavation in protected waters (such as Pelican Lake) for navigational access where shoreline and wave conditions preclude access by use of a dock. In such instances, the access channel created shall not exceed four feet in depth, shall not be wider at its bottom than 15 feet and cannot extend off shore to a depth greater than four feet.

Sections 8 and 15 of the Rules and Regulations of the Thirty Lakes Watershed District prohibit excavating in public waters within the District without applying to the Board of Managers for permission to do so. Rule 15C sets standards for getting a permit for a variance, from the general rule, which standards include consideration of the following factors: esthetics, existing population density in the area, total demands on the area, existing pollution problems in the area, and any potential pollution problems arising directly or indirectly from the use.

Part IV.A. of the District's Overall Plan refers to eutrophication as a form of pollution whereby plant life overtakes the lake bed and reduces the quality or presence of animal life in the water. Parts IV.D. and V.D. of the Plan identify "Navigation" as one of the District's problems and outline an approach to the problem which states that docks should be controlled so as not to present a danger to navigation and to provide for safety on the surface of the water.

The Administrative Law Judge has recommended issuance of a permit to Mr. Wurdeman to dredge out the murky bottom off his shore front within the parameters allowed by Minn. Rule 6115.0201, subp. 4A, because he is persuaded that construction of a dock out into Pelican Lake far enough to give Mr. Wurdeman's boat over two feet of open water (for clean propeller and motor operation) would create a hazard to persons boating and waterskiing in the bay. Even if Wurdeman removes the several inches of vegetation that lies over the mucky silt bottom, an activity for which he does not need a permit, he still will not have over two feet of open water (the depth needed when his propeller is straight down in the water) in front of his Lot until he moves off shore over 80 feet. At that point, his propeller will still be so close to the top of the "muck" that its rotation will easily stir up the silt, which results in the water becoming murky and activates the growth of nutrients. However, if Wurdeman is allowed to dredge to a "hard bottom" depth of four feet, as recommended, he will have ample open water in which to start up his boat and move it out to where, after he reaches the end of his excavation, the water should be deep enough to allow for clear passage of his propeller through water instead of silt or vegetation.

The Administrative Law Judge is not persuaded by the DNR's argument that extension of an 80 foot dock into the water would not be hazardous to boating traffic, or by the District's argument that enough open water exists to operate Wurdeman's boat up to his shore. After the testimony was taken in

this case, the Administrative Law Judge and Water Resources Board Member Marlin Rieppel visited the site in question. It is apparent that the vegetation-silt buildup on the west shore of "Mud Bay" makes boat landing extremely difficult unless dredging activity to remove that problem is undertaken. Both the public access launch area and the next (private) dock to the south of Wurdeman's property have been dredged, and the Administrative Law Judge is convinced that allowing Wurdeman to dredge to a depth sufficient for a "clean" boat launching will do nothing to disturb the ecology of Pelican Lake, which is large (over 13 square miles) and very heavily developed already.

During the site visit, Ron Morreim of the DNR pointed out the cattail "barrier" that lines the bay's west shore. The argument that the existence of the barrier allows for an extension of a dock far enough to give Wurdeman's boat open water for operation is very compelling. However, the Judge is persuaded, after careful consideration, that extension of a dock that far into the water is too dangerous, especially at the point in the bay where Wurdeman's Lots are located. The record contains evidence of heavy boat traffic at this location, some of which is conducted in a careless fashion by intoxicated persons. The probability exists that a boat or a person being towed by a boat (on waterskis or in an inner tube) will crash into a dock put that far into the water. The argument advanced that a dock extended to sufficient depths to provide enough open water for the "draft" of the Appellant's boat and propeller will be sheltered from bay traffic by cattails is speculative and overly optimistic. See, DNR Exs. 11, 12 and 13, which are photographs that depicted the Wahls' 50 foot dock (next to the Wurdeman property) in relation to the cattail "barrier". In addition, such a dock may have to be built further than 80 feet, possibly as much as 100 feet into the water, to give the boat's propellers a clean draft. The farther out a dock is built, the greater the hazard.

Allowing Wurdeman to dredge the lake bed from his shoreline within the parameters allowed by Rule would satisfy the legislative goals laid out in Minn. Stat. 105.45. The record shows that such drainage is reasonable because it provides navigational access without creating a barrier to navigation. It is practical because dredging is a common practice and the Wurdemans have already engaged in some of that activity using the "bed spring" method. In short, it can be done, as it was done at the nearby public access point and elsewhere on the Lake. Public safety will be adequately protected -- the concern of safety for boating is of primary importance in the above Recommendation. As for promotion of the public welfare, such a goal is advanced by allowing a person who has owned shoreline property for 23 years the easier use of that property in the fashion for which he bought it, and by avoiding the hazard of a dock.

This Report contains no recommendation regarding the utility of performing the dredging operation with a Gold Dredge Pump, as discussed at Finding 16. The details of how the lake bed is dredged are beyond the scope of this Report. Mr. Morreim testified (and DNR's counsel remarked) that the DNR's Rules do not cover an "experimental pumping" method of dredging, such as the Applicant hopes to do, but evaluation of that particular issue is not now before this proceeding.

The parties are reminded of the concern raised by counsel for the DNR regarding deposition of the material removed by the dredging activity, if such activity is allowed. If any of that material should contain pollutants, the Applicant may need a separate permit from the Minnesota Pollution Control Agency (PCA) to accomplish this dredging project. Again, this issue is beyond the scope of this Report, and the process of obtaining a PCA permit is a separate proceeding.

Minn. Stat.' 116B.02, subd. 5 and 116D.04, subds. 5(c) and 6 prohibit granting of a permit if there is a significant or material adverse effect on the quality of the environment. Those provisions should not be a concern here, where the environmental impact is, based on this record, very minimal.

See, State by Skeie v. MinnKota Power Coop 381 N.W.2d 372, 374, fn. 1 (Minn. 1979). The only evidence in the record that "pollution, impairment of destruction" of water resources will occur is the concern that activating nutrients would accelerate the eutrophication process. Section 116D.04, subd. 6 requires a showing that such a result is likely, however, and the evidence falls short of that level of proof. The amount of accelerated eutrophication caused by this minor dredging project has not been shown to have the potential of hurting the quality of animal life in Pelican Lake because the project is too small and the Lake is obviously too big to be affected by it. Therefore, the records falls short of establishing the prima facie showing (as required by the Skeie decision) of material adverse effect on the environment.

If it is decided that the record establishes, prima facie, that Wurdeman's dredging will result in a "material adverse effect" on the environment, it is still recommended that he be allowed to dredge because the alternative (a dock projecting at least 80 feet into the water) is a public safety concern. The statute does not bar issuance of a permit if a material adverse environmental effect is found. Rather, it states that any activity likely to cause pollution should not be allowed if there is a feasible and prudent alternative consistent with, among other things, public safety. In this case, extension of a dock as far as the DRN recommends would be a public safety hazard. It would not be prudent to place a dock as far into the water as is needed to allow for operation of runabout boats, because of the danger to water traffic. This consideration should outweigh the small amount of "pollution" that Wurdeman's dredging might cause.

A final consideration raised by the DNR and the District is that continued wave action and propeller wash will "fill-in" whatever area Wurdeman dredges, causing him to continuously maintain the area, which will result in continued future disruption or "stirring up" of nutrients and deposition of silt on land. The Administrative Law Judge views this concern as speculative and, even if such a situation comes "every couple years" (as the DNR suggests), it is still a matter of less public concern than dangerously extending a dock into a heavily-trafficked bay.

R.C.L.



