

ILLINOIS POLLUTION CONTROL BOARD  
April 24, 1986

IN THE MATTER OF: )  
 )  
APPLICATION FOR LAKE MICHIGAN ) PCB 86-60  
PERMIT NO. 187 LM FOR THE )  
CITY OF LAKE FOREST )

DISSENTING OPINION (by B. Forcade):

I dissent from the majority Order because it authorizes an extremely large quantity of material to be placed in Lake Michigan with virtually no information on the pollution consequences of that action. Additionally, I dissent from the haste in which final action was taken today. Action could have been delayed one week to secure fundamental information which the Board should have and to provide an opportunity for public comment. To understand the full implications of the majority order, and the rationale for my dissent, it is necessary to review the permitting processes, past dredge and fill activities reviewed by this Board, and the factual record presently before the Board.

The process for securing Illinois governmental approval for a fill project in Lake Michigan generally involves three steps:

1. Securing 401 certification from the Illinois Environmental Protection Agency ("Agency");
2. Securing a Permit from the Illinois Department of Transportation ("IDOT") under I.R.S., chapter 19, and;
3. Securing Board concurrence on IDOT's permit pursuant to I.R.S., chapter 19, paragraph 65.

The exact role of the Agency's 401 certification in state review of Lake Michigan fill projects has never been fully explained to the Board. Under Section 401 of the Federal Water Pollution Control Act (42 U.S.C. Section 1251, et seq.) such a certification is required prior to issuance of a federal permit by the Secretary of the Army (under Section 404 of that Act) for discharge of fill material. Under State law, IDOT may issue Lake Michigan fill permits only where they determine, "that the deposit or deposition of dredge material will not cause water pollution as defined in the Environmental Protection Act" (IRS, ch. 19, par. 65). IDOT may require a 401 certification letter as part of their procedures. Whatever legal role the 401

certification letter plays in the state permitting process, there is nothing in this record to indicate what facts were before the Agency at the time it made its decision to issue the letter, nor is there information on the criteria and procedures by which the Agency determines whether or not water quality will be violated. The 401 certification letter (dated April 4, 1986) contains an introductory paragraph briefly describing this project. The remainder of the certification is a standard form letter seen by the Board in many other cases; it states that the proposed project can be completed without causing water pollution so long as the applicant does not (condition la) cause violation of water quality standards, or (condition lb) cause water pollution. Consequently, I cannot legally or factually rely on this letter as a reasoned judgment, based on sound criteria and adequate facts, that water pollution will not occur under the proposed project.

The second step in the state permitting process is the IDOT Permit. There is no statement in the Permit or in the cover letter to the Board indicating that IDOT has made determinations relating to water pollution. After review of many IDOT permits sent to the Board, I must agree with the majority that:

"...the permit system of the Waterway's Regulation Act is designed to utilize the expertise developed by IDOT in assessing the impact a project may have on the configuration of waterways and shorelines, and to utilize the expertise developed by the Board and the Agency in assessing the impact a project may have on the quality of the waters contained within those waterways."

Consequently, I cannot rely on IDOT's process to perform an evaluation of the water quality aspects of this project. That is clearly a function of this Board.

The last step in the state authorization process is Board concurrence with the IDOT permit. The Board has previously held that its role is:

To determine whether the facts contained in the record demonstrate that the proposed activity will not cause a violation of the Environmental Protection Act or Board regulations or adverse environmental impact In Re: Application for Lake Michigan Permit, No. 114, PCB 85-134, March 14, 1986.

Thus, under state law, this Board is the last governmental agency to review and decide whether a proposed fill project in Lake Michigan may proceed without causing water quality problems.

Under federal law a Section 404 permit from the Secretary of the Army is required. However, the water quality aspects of that federal process are in large part delegated to the state in the Section 401 certification process. On April 23, 1986, the Army Corps made a decision to issue the federal Section 404 permit for the Lake Forest project. Aside from a reference to the state 401 certification, the Section 404 permit contains no conditions or limitations which would indicate a review of the water quality impacts of the project. The conditions imposed indicate the Army Corps' decision in this case was based on erosion and navigation. It is probable that as a general rule the Army's decision, like that of IDOT, is concerned with navigation and the configuration of shorelines or waterways.

While this process is confusing, and involves many agencies of government, I believe that this Board is the last agency of government (federal or state) that is required to address the pollution control aspects of a Lake Michigan fill project. In that role, and considering the tremendous importance of Lake Michigan to the people of Illinois and the nation, the Board has a special duty to ensure that all of the facts are in and all of the judgments are sound. When today's action is measured against prior Lake Michigan activities or other dredge and fill projects, it is obvious that the special duty has not been fulfilled.

This Board has significant and recent experience with dredge and fill activities. From November of 1982 through October of 1984, it reviewed three variance requests from the Department of the Army seeking to do navigational dredging on the Illinois River (PCB 82-136, November 19, 1982; PCB 83-25, July 26, 1983; and PCB 84-86, October 25, 1984). In summary, these proceedings authorized a four-year program to remove sediment from the river and place it on the banks in a manner to minimize the amount of material entering the water column. The record before the Board contained substantial background information on the nature of the sediment to be dredged, flows, depths, disposal methods and character of the area. In addition, and most importantly, the record contained chemical analyses of a wide variety of parameters for sediment in the areas where dredging was anticipated and chemical analyses of water quality in the affected area. In granting relief, the Board adopted an Order containing four pages of conditions relating to monitoring and analyses, restrictions on disposal methods, and similar conditions designed to reduce the pollution impact. An example of the level of detail in the October 25, 1984, Order is paragraph 9), c) and 1):

- (1) Petitioner shall sample the following parameters at all sampling points listed under Paragraph 9, c) 4: specific conductance; turbidity; oil and grease; dissolved oxygen; total suspended solids;

total dissolved solids; volatile suspended solids; total ammonia nitrogen as N; pH; water temperature; lead (total); zinc (total); arsenic (total); barium (total); cadmium (total); chromium (total hexavalent and total trivalent); copper (total); mercury (total); nickel (total); and selenium (total).

In the Illinois River dredging proceedings, I believe the Board exercised sound judgment based on adequate facts.

In a similar vein, the Board has experience with Lake Michigan projects. In PCB 84-72 (In Re: Illinois Department of Transportation; Permit for American Toxics Disposal, Inc., June 14, 1984), Board concurrence was sought for a project to dredge 25 cubic yards of contaminated sediment from Waukegan Harbor. The sediment would not be returned to the waterway but would be used on shore in an experimental process to destroy polychlorinated biphenyls. The record contained substantial information on project protocols and chemical analysis data. The project would use silt curtains to contain the contamination stirred up during dredging operations. The only issue of concern was whether the silt curtains would contain the contamination for a sufficient time period. I dissented, stating:

OMC has claimed that ATD's operation will stir up from 3.2 to 7.5 kilograms of PCB's which will be resuspended in the water column, that large portions of resuspended materials may not resettle for approximately 40 days and that silt curtains are unreliable beyond one or two days. Many of these arguments cite USEPA publications or protocols for support. Since these factual arguments are of the type normally encountered in Board hearings, and since the record before us does not contain sufficient factual material for the Board to reach an independent conclusion on the key issues, I would postpone decision until a hearing could be held.

While I disagreed with the majority that the life of silt curtains and sediment settling rates were adequately proven, at least the theoretical basis and factual data were present in the record. Again, the Board carried out its required duties with some semblance of theoretical and factual underpinning.

More recently, the Board dealt with a request to dredge 40,000 cubic yards of sand from the Waukegan Harbor entrance channel, In the matter of: Application for Lake Michigan Permit No. 114 LM for the Department of the Army Corps of Engineers, PCB

85-134. The documents conveyed to the Board contained information on the scope and location of the dredging as well as over 550 separate chemical analyses on the sediments. Because of difficulties determining which sediment analyses correlated with which dredging area, the Board set the matter for hearing (Order of September 20, 1985):

This matter will be set for hearing. At hearing, the Department of Transportation will be expected to provide evidence on:

1. The exact locations at which dredging and disposal will occur.
2. The level of sediment contamination at each dredging location.
3. Whether the anticipated dredging and disposal activity will cause violations of Board regulations or the Environmental Protection Act.

After hearing, comments filed by the Office of the Attorney General raised concerns that contamination levels listed in the data might cause subsequent water quality levels to rise at the disposal location. The Board ultimately dismissed the Petition on procedural issues (the Army Corps had proceeded with the project, without Board knowledge, prior to the scheduled hearing). However, the Board was proceeding to evaluate the extensive factual record on chemical contamination against numerical standards existing in our regulations. In other words, the Board was again performing the appropriate function.

The purpose of this lengthy discussion of prior proceedings is to provide a benchmark on the size of the projects, the wealth of factual detail, and the depth of Board scrutiny. When the present project is measured against that benchmark, the shortfall is obvious.

The project contemplated under this permit is reasonably described in the record (Environmental Assessment 14 February 1986). Lake Forest has approximately 3,400 feet of shoreline that has suffered severe erosion. To correct the problem, Lake Forest will first construct offshore breakwaters and shoreline revetments. Second, Lake Forest will replenish the lost beach area with approximately 200,000 cubic yards of fill material. Also, Lake Forest will dredge about 1,500 cubic yards from the Boat Launch harbor; that material will be used as shoreline fill.

The shoreline protection aspect will utilize approximately 80,000 tons of armor stone and 10,000 tons of rock. The majority of this material will be placed 100 to 400 feet offshore. The

shoreline replenishment is less well described, but appears to involve placing 150,000 cubic yards of sand and 50,000 cubic yards of earth fill in the area enclosed by the breakwaters for the purpose of building up and extending the beach. Most of this material would appear to be placed near or below the present highwater mark. Thus, any contaminants in this beach nourishment fill would appear potentially available for release to the Lake Michigan water column. The actual amount of contaminants that would be released to the water column depends on many factors not present in this record. My primary concern is not with the shoreline protection material, my concern is the beach nourishment fill, and the levels of contaminants it may contain.

While the record in this proceeding is voluminous, information on contamination levels in the fill material is virtually non-existent. That limited information is reproduced here in its entirety:

Temporary water quality impacts may result from the small amount of dredging (1500 cubic yards) for the boat launch harbor. This small staging area of protected water will be dredged to a uniform depth of approximately 6 feet. It is currently 5 feet deep Lake Forest datum so a small amount will be required if any at all. The dredge spoil will consist of compact clay and will be removed by a dragline or clamshell type operation. Hydraulic dredging is not anticipated. The dredged spoil will be used as fill for shoreline facilities and will be placed behind the southern shoreline revetment after the revetment has been installed.

Chemical impacts to water quality are not anticipated because the fill material will be clean, and existing near-shore sediment analysis shows insignificant concentrations of pesticides or PCB's. Therefore, sediment resuspension will not contain significant levels of pollutants. (Environmental Assessment, p. 57).

This information is inadequate for two reasons: first, it only addresses the 1500 cubic yards to be dredged from the launch harbor (less than 1% of the total fill) not the 200,000 cubic yards from some other location, and second, statements of "clean" fill and "insignificant concentrations" of contamination can hardly replace actual numbers. In PCB 85-134, the Board had over 500 chemical analyses, covering many parameters, representing the entire material, to a level of detection of parts per million. I

find the two narrative statements, covering less than 1% of the material, an alarming shortage of data.

One possible reason for the data shortage came from Lake Forest's April 23 filing at page 5, where they explained the consequences of delayed action by this Board:

The City will be unable to benefit from a U.S. Army Corps of Engineers dredging project scheduled for Waukegan Harbor this summer from which the City is currently negotiating the receipt of \$250,000 worth of sand fill material. If the City does not have a protected beach area prepared by August 1, 1986, we will be unable to acquire this material and will increase our projected costs by \$250,000. A 30-day delay will not even allow the City to be considered as a potential recipient of this resource.

If Lake Forest is currently negotiating for a source of sand fill then presumably the actual source is not yet finally determined, and the contaminant levels in that source are also unknown. There is no information in the record to contradict this conclusion, all of the information supports it. If the source of the materials and contamination levels are unknown, then I find any conclusions on water quality impacts to be seriously flawed, whether those conclusions are made by the Agency in their 401 certification letter or by the majority of this Board.

In effect, today's action by the majority authorized placement of 200,000 cubic yards (over 500 million pounds\*) of unknown material in the project area. If the contaminant level for some parameter of that material were as low as one part per million, then the Board has authorized over 500 pounds of that contaminant as potentially available for release to the water column.

The only available information on the source of the fill is that it may come from Waukegan Harbor entrance channel dredging. The Board has some information within its public files on Waukegan Harbor entrance channel contaminant levels from PCB 85-134. While drawing conclusions in this proceeding from data in the last harbor dredging is highly speculative, it does represent the best information available to me:

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\*Using the conversion on page 56 of the Environmental Assessment.

<u>Parameter</u>	<u>Concentration in Parts per million from PCB 85-134</u>	<u>Pounds Potentially Available for Re- lease at Lake Forest Beach Based on 150,000 yd<sup>3</sup> (409 million pounds)*</u>
Lead	5 - 69	2,000 - 28,000 pounds
Arsenic	1 - 19	409 - 7,700 pounds
Chromium	5 - 103	2,000 - 42,000 pounds
PCB's	.004 - .278	1.6 - 113 pounds

With the exception of the PCB's, each of the above chemicals is subject to Board regulation in one or more media because of its potential for adverse effects on human health or the environment. PCB's are regulated predominantly by the federal government.

Whatever contaminants may be present in the fill material actually used, those contaminants will be placed in a 5.7 acre beach area that is utilized by approximately 25,000 men, women and children annually for swimming and recreational purposes (Environmental Assessment, pp. 2, 50). I believe in such circumstances this Board should undertake a critical review of the facts and that today's action by the majority does not represent such a review.

Because of the factual deficiencies in the record, I made a motion at the Board meeting to amend the majority order, allowing a short schedule for briefing and comments on the critical issues. The key portion of that amendment is as follows:

Consequently, the Board will establish an expedited schedule for the filing of briefs or public comments by any participant. These filings should be restricted to the pollution issues over which the Board has jurisdiction. Additionally, these filings should attempt to provide as much information as possible on the following concerns:

1. Whether quantities of material from Waukegan Harbor will be used as fill material and what are the levels of contamination in that material?
2. What are the sources of fill material other than Waukegan Harbor sand fill, and what are the levels of contamination in that material?

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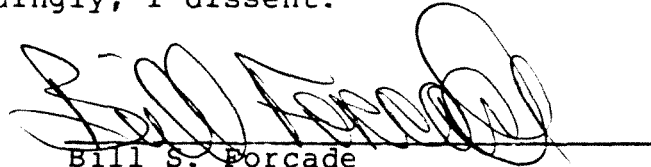
\*Using the conversion on page 56 of the Environmental Assessment.



3. What is the impact on water quality and water quality standards of placement of the material described in Nos. 1 and 2?
4. In the absence of information on questions Nos. 1 and 3, can the Board place meaningful restrictions on the activity or on the levels of contamination in the materials used such that it will not cause pollution, and what would those restrictions be?
5. Whether the proposed activity will cause a violation of the Environmental Protection Act or Board regulations or cause environmental harm?
6. Is the record before the Board adequate to make a decision, and if not, what types of information could be produced at a public hearing on this matter?

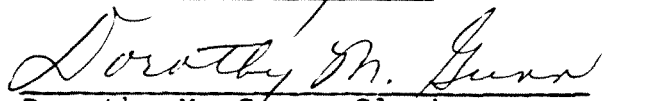
The amendment would have allowed approximately one week for comments and Board decision, leaving ample time for the May 5 bond sale to proceed. The amendment failed to carry. I can only conclude that the majority chose not to inquire into these issues.

In summary, I find today's majority action premature and factually unsupportable; accordingly, I dissent.



Bill S. Porcade  
Member of the Board

I, Dorothy M. Gunn, Clerk of the Illinois Pollution Control Board, hereby certify that the above Dissenting Opinion was submitted on the 6th day of May, 1986.



Dorothy M. Gunn, Clerk  
Illinois Pollution Control Board