

STATE COMMENTS



JOAN K. CHRISTENSEN
Assemblywoman 119th District

THE ASSEMBLY
STATE OF NEW YORK
ALBANY

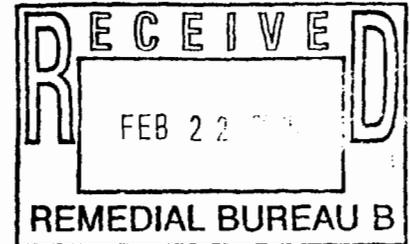
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CHAIR
Legislative Commission on
Skills Development and
Career Education

COMMITTEES
Housing
Labor
Insurance
Small Business
Real Property Taxation

February 17, 2005

Timothy J. Larson
Remedial Bureau B
NYS Dept. of Environmental Conservation
625 Broadway
Albany, NY 12233-7016



Dear Mr. Larson:

Thank you for the invitation to attend the Onondaga Lake Proposed Plan public meeting held on February 16, 2005 at the NYS Fairgrounds, Art and Home Center, Martha Eddy Room. Regrettably, I was unable to attend as I was traveling home from Albany and arrived too late to attend.

I commend you, Timothy and your co-workers at the NYS Department of Environmental Conservation for conducting this meeting and the January 2005 presentations to inform and educate the public about the proposed plan for cleaning Onondaga Lake. 1

Although I have been unable to attend your public meetings, please know that I would like to receive any updated information for my files.

Sincerely,

Joan K. Christensen
Member of Assembly

JKC/eb

ONONDAGA NATION COMMENTS

**Comments of the Onondaga Nation Submitted to
the EPA National Remedy Review Board
Onondaga Lake Superfund Site**

**New York, New York
February 8, 2005**

The Onondaga Nation ("Nation") submits these comments to the United States Environmental Protection Agency's National Remedy Review Board ("NRRB") concerning the proposed preferred remedial alternative for the Onondaga Lake Superfund Site, located in Onondaga County, New York.

The Nation objects to the procedures being followed by EPA and the New York State Department of Environmental Conservation ("DEC") concerning remediation of Onondaga Lake. As set forth in detail below, contrary to the clear requirement in section 126 of the Comprehensive Environmental Response, Compensation and Liability Act ("CERCLA"), 42 U.S.C. § 9626, that Indian nations be consulted by EPA during the remedial selection process – and, in particular, prior to the selection of a preferred remedy – EPA and its surrogate, DEC, have failed to consult the Nation concerning the remediation of Onondaga Lake. In doing so, EPA and DEC have ignored the crucial spiritual and cultural significance that the Lake has for the Onondaga people, and have utterly failed to incorporate the environmental and health concerns of the Nation. The failure by EPA and DEC to consult not only violates CERCLA, but is also inconsistent with the commitments made by EPA in response to the report of the EPA Inspector General criticizing the agency's failure to adequately involve Indian nations in the Superfund process; violates EPA's Indian Policy; and violates the federal trust responsibility. 1

Despite numerous requests from the Nation for meetings and consultation over the past several years, on the Onondaga Lake Superfund Site and the various upland toxic sites, no consultation meetings occurred until November 22, 2004, which was merely days before the DEC announced this preferred plan. Additionally, when the Nation submitted written comments to the DEC on various upland toxic sites, such as the Salina dump and the Semet tar pits site, those letters were not responded to.

Since the November 22, 2004 meeting, the Nation has retained outside, special environmental counsel and a toxics expert, who have begun the process of reviewing the Remedial Investigation/Feasibility Study, the Baseline Ecological Risk Assessment and the Human Health Risk Assessment. This expert review is not complete because of the limited time.

The Nation reserves its right to submit comments at a later date after it has had sufficient time to complete its technical and legal review of the documentation.

In the meantime, however, the Nation submits these comments to alert the NRRB to the failure by EPA and DEC to consult the Nation during the remedy selection process for Onondaga Lake, as required by CERCLA.

2 I. The Nation's Sacred, Spiritual, Historic, Archeological and Environmental Interests in Onondaga Lake

The Nation's interest in Onondaga Lake spans thousands of years. Onondaga Lake and the land along its shoreline are sacred to the Onondaga Nation and the other Nations of the Haudenosaunee Confederacy, which include the Mohawk, Oneida, Cayuga, Seneca and Tuscarora Nations. It was on the shores of the Lake that the Peacemaker formed the Confederacy, hundreds of years ago.

The Lake lies within the aboriginal territory of the Onondagas, and within its land claim territory. Before the intervention of European settlers in this area, the Onondaga had villages on the shores of the Lake. In the past, the Nation has relied heavily on the Lake and its tributaries for fishing, gathering of plants for medicinal and nutritional needs, and for recreation. The Nation has a fundamental cultural interest in the environmental restoration and integrity of the Lake and its shores.

After the arrival of European settlers, the Onondagas were forced to move their villages away from the Lake and the villages were then located progressively south, along Onondaga Creek. There are, therefore, many former Onondaga village sites along the Lake and the Creek. The Nation has an intense interest in maintaining the archeological integrity of these former village sites.

Please be hereby advised that, pursuant to 36 CFR § 800.3(f)(2), the Onondaga Nation, as the central fire for the Haudenosaunee Confederacy, attach sacred, historic, archeological and cultural significance to Onondaga Lake and its environs and to the historic sites and properties that may be disturbed and impacted by the remediation of Onondaga Lake and its upland areas. It is the Nation's position that these areas are eligible for listing on the National Historic Landmarks Registry, pursuant to 36 CFR 60.4 (a), (b), (c) and (d),

in that this area, or district is:

- (a) Associated with events of pre-colonial Onondaga history, which made significant contributions to the broad patterns of Onondaga and American history;
- (b) Associated with the lives of pre-colonial Onondagas and Haudenosaunee, who are significant to the Onondaga and the American past;
- (c) Contains archeological evidence of pre-colonial structures that embody the distinctive characteristics of that period; and
- (d) Contains archeological evidence that has yielded, and is likely to yield, information important to prehistory and history.

Given these sacred, spiritual, historic, archeological, and treaty based interests, and its environmental interest in a complete clean up and restoration of Onondaga Lake, the Nation is deeply concerned that DEC's preferred remedial alternative is inadequate and will result in permanent, long-term contamination and degradation of the Lake due to continuing releases of mercury and other pollutants.

The Nation is further concerned that DEC's preferred remedy does not adequately incorporate the proper and complete clean up of numerous upland toxic dump sites which continue to release to pollutants into the Lake. Neither EPA nor DEC have consulted the Nation concerning these critical components of the Onondaga Lake cleanup. This additional lack of consultation further hinders the Nation's ability to evaluate the preferred remedy for the lake bottom.

II. The Nation is a Trustee for Natural Resources

The Onondaga Nation is a trustee for natural resources as defined by CERCLA and the EPA regulations. Onondaga Creek is one of the main tributaries to the Lake, and is a "supporting ecosystem" of the Lake. Onondaga Creek runs through the Onondaga Nation territory prior to discharging to Onondaga Lake, and is therefore a resource "belonging to, managed by, controlled by, or appertaining to" the Nation. See 40 CFR 300.610. Moreover,

because Onondaga Lake and adjacent areas are within the treaty and land claim area of the Nation, the Lake and its environs “appertains” to the Nation within the meaning of CERCLA and the regulations, and the Nation is therefore a trustee for the Lake’s natural resources. *Id.*

5 III. The Nation is Entitled To Be “Afforded Substantially the Same Treatment as a State” Under CERCLA

Section 126 of CERCLA provides that “[t]he governing body of an Indian tribe shall be afforded substantially the same treatment as a State with respect to the provisions of . . . section 9604 (c)(2) of this title (regarding consultation on remedial actions) . . .” 42 U.S.C. § 9626(a). In this regard, the EPA regulations specify that “[b]oth EPA and the state shall be involved in preliminary discussions of the alternatives addressed in the FS prior to preparation of the proposed plan [setting forth the preferred remedy] and the ROD.” 300.515(e)(1); (emphasis added). Thus, it is clear that the Nation was required to be consulted prior to DEC’s selection and announcement of a preferred remedy for Onondaga Lake.

6 IV. EPA and DEC Have Failed to Consult the Nation as Required by CERCLA and EPA Policy, and in Violation of the Federal Trust Responsibility

A. The Contacts Between the Agencies and the Nation Have Not Constituted “Consultation”

CERCLA §§ 9604 (c)(2) and 9626(a) require that EPA “shall consult with the affected [Indian nation] before determining any appropriate remedial action to be taken” (Emphasis added). Consistent with its entitlement to “substantially the same treatment as a State” with respect to remedy selection, EPA’s consultation with the Nation was required to be “meaningful and substantial.” 40 CFR 300.500(a); (emphasis added). EPA regulations also specifically require consultation with natural resource trustees as part of the remedy selection process, by requiring that the “lead agency shall seek to coordinate necessary assessments, evaluations, investigations, and planning with . . . state and federal trustees [of natural resources].” 300.430(b)(7). Despite the fact that DEC has already announced its selection of a proposed remedy for Onondaga Lake, neither EPA nor DEC have consulted the Nation as required by CERCLA.

As lead agency for remedial action at Onondaga Lake pursuant to a CERCLA cooperative agreement, DEC is required to comply with CERCLA's Indian nation consultation requirement. DEC did not contact the Nation to discuss the selection of a preferred remedy for Onondaga Lake until November 16, 2004 – less than two weeks prior to the date already chosen by DEC to publicly announce its selection. A meeting among Nation representatives, DEC staff and staff from EPA was then held on November 22, 2004 – three working days prior to DEC's remedy selection announcement date. At that meeting, the Nation's representatives were provided with a copy of a twenty-page Power Point presentation. The Power Point presentation was the only documentation provided to the Nation by DEC or EPA concerning the selection of a preferred cleanup alternative for Onondaga Lake.

The foregoing does not constitute "consultation" with the Onondaga Nation, as required by CERCLA. The fact that DEC waited until the eleventh hour to contact the Nation, together with the patently inadequate documentation provided, rendered any meaningful response and input from the Nation impossible. Moreover, rather than consulting the Nation prior to selecting a remedy as required by CERCLA, the sole purpose of the November 22 meeting was to inform the Nation of the decision that had already been made by DEC and EPA concerning a preferred cleanup alternative.

On November 24, 2004, the Nation faxed a letter to Commissioner Crotty, copies of which were sent to EPA, notifying DEC that it was in violation of the Indian nation consultation requirements of CERCLA. The letter further stated:

Because DEC has failed to timely provide the Nation with the information, reports and data necessary for the Nation to provide a meaningful assessment of the various proposed remedies, the Nation hereby requests that the Department provide all such documentation for its review. The Nation further requests that DEC delay any decision concerning a preferred alternative for Onondaga Lake until the Nation (i) has had a full and adequate opportunity to review the requested documentation, and (ii) has provided DEC with written comments setting forth the Nation's position with respect to remediation of Onondaga Lake.

Neither DEC nor EPA responded to the Nation's November 24, 2004 letter.

Moreover, in disregard of the Nation's letter and CERCLA's consultation requirement, DEC announced its selection of a preferred remedial action for Onondaga Lake on November 29, 2004. Consequently, by letter dated January 6, 2005, the Nation notified EPA and DEC pursuant to CERCLA § 310(e) that it intends to commence suit after 60 days concerning the agencies' failure to consult with the Nation as required. The 60 day notice period expires on March 14, 2005.

7 B. EPA's Failure to Consult Violates the Commitments Made in Response to the September 2004 Inspector General Report Concerning Indian Nation Involvement in Superfund Programs

EPA's failure to consult is particularly inexplicable in light of its recent public commitments to improve consultation with Indian nations on Superfund matters following the release of an Inspector General's report criticizing EPA's track record in this area. "Tribal Superfund Program Needs Clear Direction and Actions to Improve Effectiveness," Office of Inspector General, Rept. No. 2004-P-00035 (Sept. 30, 2004) ("OIG Report"). The OIG Report specifically noted that in response to a 1998 national Indian nation forum, EPA had identified various actions to enhance Indian nation participation in the Superfund program, including incorporating Indian nation cultural values into the Hazard Ranking System and risk assessment guidance. The Report found:

The Agency's method for screening, assessing and prioritizing hazardous waste sites are based on risk principles that do not specifically account for tribal use of natural resources. Due to subsistence lifestyles that involve living close to the land, spiritual practices, and other cultural aspects, tribes have multiple exposures that, if not considered, are likely to result in insufficient protection of human health in Indian country. Further . . . government agencies' approach to risk assessment and management fall short of taking into account that affected groups consume and use fish, aquatic plants, and wildlife in different cultural, traditional, religious, historical, economic, and legal contexts than the "average" American. According to one tribal risk assessor, subsistence lifestyles alone may result in 10 to 100 times more exposure than suburban lifestyles.

OIG Report at 10.

Although, as a result of the Indian nation forum, EPA had agreed to incorporate Indian nation risks into its risk assessment process, the OIG Report EPA's efforts in this regard to be "incomplete and unsuccessful." OIG Report at 10. The Report concluded:

[EPA] will not be able to fully consider the interests of tribes in identifying, prioritizing, and evaluating hazardous waste sites unless tribal cultural resource use is accounted for systematically. Further, if EPA does not take action to revise its risk tools, it could undermine its relationships with tribes and be at odds with its own Indian Policy, which calls for removing barriers to tribal participation in environmental programs. According to its Federal trust responsibility, EPA must consider the interests of tribes in conducting its activities and ensure its actions protect tribal treaty rights.

OIG Report at 12; (emphasis added).

The OIG Report also specifically recognized the crucial role that consultation plays with respect to fulfilling EPA's trust responsibility:

According to its trust responsibility, EPA must consult with and consider the interests of tribes in conducting its activities and ensure its actions protect tribal treaty rights . . . The U.S. Supreme Court has noted that the Federal government, as trustee, is "charged with moral obligations of the highest responsibility and trust" . . . Because tribes are sovereign, EPA must honor a direct government-to-government relationship with tribes. Consequently, no decisions about tribal lands, resources, and people should be made without consulting with the tribal government.

OIG Report at 28; (emphasis added).

The Report identified four factors resulting in successful EPA-Indian nation relationships: (1) frequent, timely communication; (2) appropriate information sharing; (3) addressing issues raised by Indian nations; and (4) operating in a government-to-government relationship. Id. at 29. Unfortunately, all four factors are absent in EPA's handling of its trust responsibilities with regard to the Nation's interests in Onondaga Lake. This is despite the commitments made by EPA in response to the OIG Report. As part of the response EPA

committed to “ensuring that tribal cultural life ways are appropriately factored into stage of the Superfund process,” “issue guidance incorporating tribal cultural factors . . . into the HRS and Superfund risk assessment processes,” and “involve tribes early in the Superfund process.” OIG Report at 42. Again, none of these commitments have been met in the case of Onondaga Lake.

C. EPA’s Failure to Consult the Nation Violates the Agency’s Indian Policy

EPA’s Indian Policy contains numerous commitments concerning the manner in which the Agency will deal with Indian nations in the context of the federal environmental laws the Agency administers and enforces. Unfortunately, these commitments have been ignored in the case of the Onondaga Lake remediation. Among the commitments set forth in the Indian Policy is the following:

The Agency, in keeping with the federal trust responsibility, will assure that tribal concerns and interests are considered whenever EPA’s actions and/or decisions may affect reservation environments. EPA recognizes that a trust responsibility derives from the historical relationship between the Federal Government and Indian Tribes as expressed in certain treaties and Federal Indian Law. In keeping with that trust responsibility, the Agency will endeavor to protect the environmental interests of Indian Tribes when carrying out its responsibilities that may affect the reservations.

EPA Policy for the Administration of Environmental Programs on Indian Reservations, dated November 8, 1984 (“EPA Policy”), § 5; (emphasis added).

The Policy further specifies:

The Agency will encourage cooperation between tribal, state and local governments to resolve environmental problems of mutual concern. Sound environmental planning and management require the cooperation and mutual consideration of neighboring governments, whether those governments be neighboring States, Tribes, or local units of government. Accordingly, EPA will encourage early communication and cooperation among Tribes, States and local Governments.

EPA Policy § 6; (emphasis added).

Contrary to the commitments set forth in the EPA Policy, the Agency has made no effort to even consult the Nation, much less protect the environmental interests of the Onondaga people concerning Onondaga Lake. And, as set forth above, far from encouraging “early communication and cooperation” among EPA, DEC and the Nation, the Agency has been a silent partner in DEC’s ongoing failure to consult or communicate with the Nation concerning selection of a remedy for Onondaga Lake.

V. Conclusion

The Onondaga Nation has longstanding sacred, spiritual, historic, archeological and environmental interests in Onondaga Lake. Because its reservation is located on and encompasses portions of Onondaga Creek, and because Onondaga Lake is included within the Nation’s treaty and land claim area, the Nation is a trustee for natural resources. For these reasons, the Nation is entitled under CERCLA § 126 to substantially the same treatment as a state concerning, *inter alia*, consultation during the remedy selection process. However, EPA and DEC have failed to consult the Nation as required by CERCLA’s express provisions, commitments made by EPA in response to the Inspector General’s report on Indian nation participation in Superfund programs, EPA’s Indian Policy and the federal trust responsibility.

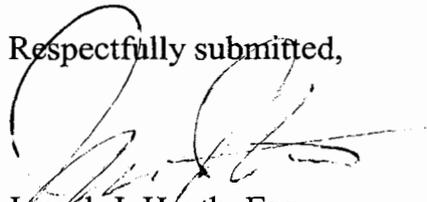
Prior to DEC’s announcement of a preferred remedy alternative, the Nation wrote to the Department noting that the Nation had not been consulted and requesting DEC to postpone announcement of the preferred remedy until such consultation had occurred. A copy of the letter was sent to EPA. The Nation received no response to its request from either DEC or EPA, and DEC announced the selection of the preferred remedy in derogation of CERCLA’s consultation requirements. Consequently, the Nation served a CERCLA 60-day written notice on EPA and DEC advising them of its intention to bring suit concerning the agencies’ failure to consult. To date, there has been no response from either agency to the notice letter.

In summary, the remedy selection process for Onondaga Lake has been characterized by utter disregard of the interests of the Onondaga Nation. Given the immense significance of Onondaga Lake to the Onondaga people, the Nation is committed to pursuing all available

Comments of the Onondaga Nation Submitted to
the EPA National Remedy Review Board
Onondaga Lake Superfund Site
February 8, 2005

remedies to protect its interests in a full and complete remediation of the Lake.

Respectfully submitted,



Joseph J. Heath, Esq.
General Counsel for Onondaga Nation
716 East Washington Street
Suite 104
Syracuse, New York 13210
(315) 475-2559

REGIONAL COMMENTS



COUNTY OF ONONDAGA
EXECUTIVE DEPARTMENT
OFFICE OF THE ENVIRONMENT

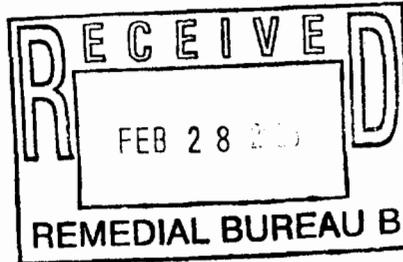
NICHOLAS J. PIRRO
County Executive

JOHN H. MULROY CIVIC CENTER
421 MONTGOMERY STREET - 14TH FLOOR
SYRACUSE, NEW YORK 13202
315 - 435-2647
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DAVID COBURN
Director

Via U.S. Mail and E-Mail

Timothy J. Larson, P.E.
New York State Department of
Environmental Conservation
Bureau of Remedial Action
625 Broadway, 12th Floor
Albany, NY 12233



February 25, 2005

Re: State's Proposed Plan for the Lake Bottom Subsite, November 2004

Dear Mr. Larson:

The County submits the following supplementary comments to the oral and written Comments submitted by Onondaga County Executive Nicholas J. Pirro at the Public Meeting held on January 12, 2005.

The November 2004 FS Report submitted by Honeywell was identified as a "Draft Final Feasibility Study." It is the County's understanding that the Report has not yet been approved by the State. Can the State clarify the final status of the November 29, 2004 FS and the weight, if any, it will be accorded in the remedy selection process? **1**

Related to this question of the status of the FS, Honeywell's practice of continuing to reference the rejected concept of a defensible mercury model/mass balance concept in the FS, if allowed to continue into the remedy selection and design process, may bias the focus of pre- and post-remediation monitoring and analysis. The State previously informed Honeywell that their effort to construct a mass balance was seriously flawed and disapproved. Please clarify the State's position on this matter. **2**

It is unclear to the County, from a review of the State's Proposed Plan for the Lake Bottom Subsite, how the PEC quotient was utilized in determining the volume of material to be dredged from each SMU. The State should clarify what factors and which contaminants dictated the quantity of sediment to be dredged from each SMU and the basis for determining the thickness of any sediment cap. **3**

The proposed remedy for SMU-8 calls for relatively limited thin-layer sediment capping (*i.e.*, of 154 acres, or approximately 8% of the profundal area) with experimental oxygenation to **4**

follow. While thin-layer sediment capping presumably will prevent mercury entrained in methane bubbles trapped in surficial sediments from releasing into the hypolimnion, aeration, in theory, will introduce oxygen directly into the hypolimnion and inhibit mercury methylation.

Aeration, or oxygenation, as a remedy intended to prevent the methylation of mercury appears never to have been used successfully for the collective purposes, on the scale, or for the length of time sought here. As described for this project, it is experimental. Its ecological and recreational use ramifications are not known; it is not inexpensive; and it requires constant, long-term operation and maintenance. Yet, the FS does not fully address other possible remedial alternatives for SMU-8, including more substantial thin-layer capping or isolation capping or what, if any, supplemental remedies will be required if oxygenation is technically impracticable or simply does not work. Given the objective of RAO 1 and the goal of PRG 1, why is oxygenation preferred to other potentially more successful as well as more permanent remedies?

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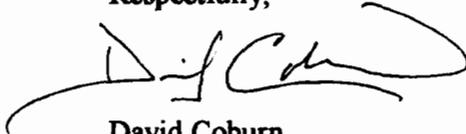
Furthermore, the Proposed Plan seems to place undue emphasis on the anoxic hypolimnion as the primary site of mercury methylation in the Lake. In reality, mercury also methylates in other anoxic environments in the Lake (*e.g.*, littoral sediments; sediments in wetlands attached to the Lake; and in pelagic sediments, prior to and following stratification where the bottom waters are oxygenated) and even within the last two miles of Ninemile Creek. This focus on oxygenation in the Proposed Plan wrongly implies that mercury is a problem in Onondaga Lake because the Lake is eutrophic. In Onondaga Lake, methylmercury levels in fish are not elevated because the Lake is eutrophic; they are elevated as a result of industrial operations, past and present, which caused and continue to cause massive uncontrolled releases of mercury into the Lake and the Onondaga Lake System.

6

The preferred alternative (and the State's Proposed Plan) calls for capping and dredging of the Lake bottom, which almost certainly will alter the Lake's bathymetry. Other remedies discussed for the Lake bottom similarly would affect its bathymetry. It is in the public's interest to have an accurate bathymetric picture of the Lake bottom after it is remedied. For that reason, the final remedy should consider creation of an updated bathymetric map of the Lake.

Thank you for the opportunity to comment on the State's Proposed Plan. The County looks forward to further progress towards the implementation of Lake cleanup efforts.

Respectfully,



David Coburn
Director

cc: Kenneth Lynch, Regional Director
Mary Jane Peachey, Regional Engineer

February 1, 2005

FEB - 7 2005

Motion Made By Mrs. Rapp

RESOLUTION NO. 17

MEMORIALIZING THE NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION TO SELECT A REMEDY BY APRIL 1, 2005 FOR THE REMEDIATION OF ONONDAGA LAKE SEDIMENTS

WHEREAS, the New York State Department of Environmental Conservation (NYSDEC) and Honeywell International (Honeywell) both have issued Proposed Plans to address the cleanup of the Onondaga Lake Sediments (Onondaga Lake Superfund Site); and

WHEREAS, the NYSDEC is soliciting public comment on the State's Proposed Plan to ensure that the concerns of the community are considered in selecting an effective remedy for this site; and

WHEREAS, the State's Proposed Plan is the result of fifteen years of litigation (including a Consent Decree entered into in 1992) and numerous studies on remedial and restoration measures needed to address the impacts of past and ongoing releases of hazardous and other substances into Onondaga Lake; and

WHEREAS, it is important to this community for the NYSDEC to select an effective and appropriate remedy and to provide for the implementation of that remedy as quickly as possible; and

WHEREAS, it is the desire of this Onondaga County Legislature for the NYSDEC to select a remedy and issue a record of decision by April 1, 2005, which is the deadline imposed by the Consent Decree, and for the NYSDEC to provide for the expeditious implementation of such remedy; now, therefore be it

RESOLVED, that this Onondaga County Legislature hereby memorializes the NYSDEC to issue a record of decision and select an appropriate remedy for the cleanup of the Onondaga Lake Sediments by April 1, 2005 and to provide for the implementation of that remedy as quickly as possible; and, be it further

RESOLVED, that the Clerk of this Legislature is hereby directed to send a certified copy of this resolution to the NYSDEC to be included as part of the public comment on the State's Proposed Plan.

LAKE CLEANUP 01.19.05
Jlt
sle

ADOPTED
FEB - 1 2005

I HEREBY CERTIFY THAT THE FOREGOING IS A TRUE AND EXACT COPY OF LEGISLATION DULY ADOPTED BY THE COUNTY LEGISLATURE OF ONONDAGA COUNTY ON THE 15th DAY OF February, 2005.

Debra A. Pickens

CLERK, COUNTY LEGISLATURE
ONONDAGA COUNTY, NEW YORK

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ONONDAGA COUNTY
LEGISLATURE
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Nicholas J. Piro
County Executive
www.ongov.net

Onondaga County Health Department

Division of Environmental Health

421 Montgomery Street
Syracuse, New York 13202

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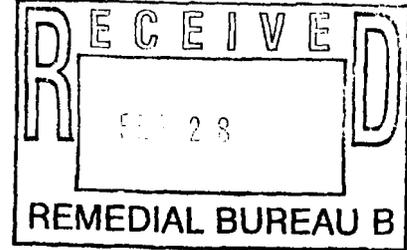
Lloyd F. Novick, MD, MPH
Commissioner of Health

Gary R. Smith, P.E.
Director of Environmental Health

Council on Environmental Health
(315) 435-6600

February 23, 2005

Mr. Timothy Larson
Onondaga Lake Superfund Site
Public Comment, NYSDEC
625 Broadway
Albany, New York 12233



Dear Mr. Larson:

This is a moment of great hope for Onondaga Lake and people concerned with its welfare. We believe there has been considerable improvement in lake water quality over time and much more will appear after the operational changes made to the Onondaga County Metropolitan Sewage plant and its entire system become fully operational. ¹

Now, all parties should be commended on reaching the current proposals for remediation by Honeywell Cooperation of the lake bed's industrial pollution.

These comments by the Onondaga County Council on Environmental Health (CEH) are based on what we, as an advisory group to county officials, believe is best for the future of the county and its citizens.

It is particularly heartening to CEH members to see the prospect of action in the near future to deal with the lake's industrial pollution instead of further studies and litigation. The four to seven year action time frame is very appealing to people who have been involved with various Onondaga Lake clean-up proposals for more than 25 years, although speeding up that time frame is even more appealing. ²

After reviewing remediation proposals by both Honeywell and the state Department of Environmental Conservation (DEC), the Council on Environmental Health has the following comments:

1) To wait for a "perfect plan" is impractical and unreasonable. However, any work plan that is approved should provide for monitoring and recognition of deficiencies. If deficiencies in the process are identified, the work plan should allow for changes to be made. ³

2) CEH members are very concerned and cautious about dredging on the lake bottom, although both the Honeywell and NYSDEC plans use that method as the focal point for remediation. New dredging techniques will lessen some of the impact as will treatment in the facility to be built on the lake shore. ⁴

However, we believe that dredging itself could have a serious adverse impact on the lake itself and its downstream flow. The more extensive the dredging, the greater the disturbance for an unknown period of time. Dredging has a relatively short-term impact when viewed over several decades, but it is still a concern to CEH members.

5 3) Disposal of lake bottom material on Wastedbed 13 in Camillus will certainly have an immediate but relatively short-term adverse impact. However, Wastedbed 13 is the logical destination for dredged material that is evaluated as not being severely hazardous. The pipeline disposal method will curtail some of the local impact, but not all.

More thought needs to be given to the final configuration of Wastedbed 13. Long-term monitoring of any disposal area should be required. As deficiencies are identified by the monitoring, then changes in the work plan should be required.

6 4) Capping the lake bottom is suggested for various locations after dredging, which raises the question of why capping could not replace some or even most of the dredging in the remediation proposal. This would lessen many people's concern about the impact of dredging.

7 5) Both the DEC and Honeywell action plans raise questions from citizens that reflect their concerns. We need to find a way to respond to these issues-- "Is this money being wisely spent or just to meet a standard?" "Will the standard change?" "What does the public see as an acceptable level of risk that would result by leaving some contamination in the lake?"

8 6) Both remediation plans have long-term annual operating and maintenance costs in the millions of dollars that will only increase in the future. It is important that taxpayers understand this is an on-going part of the proposal for a cleaner Onondaga Lake.

A sequestered fund from Honeywell, set up in advance of the beginning project, would be advisable. Local taxpayers need to be protected from assuming any monetary liability if Honeywell or its successor does not meet the financial responsibilities of the clean-up action plan or the long-term monitoring.

CEH members recognize that the proposal under review needs further refinement. We look forward to seeing all parties move forward to real action.

Sincerely,



Barbara S. Rivette, Chair
Onondaga County Council on Environmental Health

cc. Nicholas Pirro, Onondaga County Executive
Dale Sweetland, Onondaga County Legislature Chairman
Lloyd Novick, M.D., MPH, Onondaga County Health Commissioner

LOCAL COMMENTS

Office of the Supervisor

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MARY ANN COOGAN
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February 9, 2005

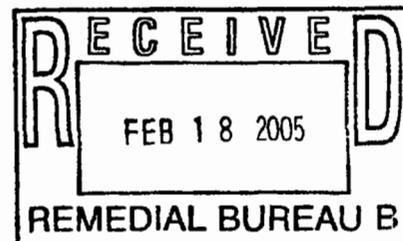
Mr. Timothy Larson
Onondaga Lake Superfund Site – Public Comment
New York State Department of Environmental Conservation
625 Broadway
Albany, New York 12233-7016

Re: Comments on Proposed Plan – Onondaga Lake Bottom Subsite of the
Onondaga Lake Superfund Site

Dear Gentlemen:

As the proposed host community for the dredging from the Onondaga Lake cleanup, the Town of Camillus has some concerns which need to be addressed to insure that no negative impacts will occur to our community during the cleanup. Some of these issues relate to the details of the design and operation of the proposed SCA on SB 13, part of what is known as the Allied Waste Beds. We make these comments now because we are unsure of future opportunities to do so. Camillus requests a review and advisory role as the project goes forward.

Camillus believes that the Department should revisit the entire issue of the SCA location. From some of the supporting materials accompanying the FS, it is obvious that shoreline and in-the-water locations for SCAs have been successfully used for dredgings in the past. The selection process gave no opportunity to select an in-the-water SCA because of goals for no loss of lake surface or volume. An SCA location, or locations, near or in the lake would result in a relatively tiny loss of lake surface and volume and it would eliminate the costs and environmental concerns associated with the pipeline up Nine Mile Creek and the new SCA on SB 13. A new upscale subdivision, Golden Meadows, is being built a short distance from SB 13 to add to the large number of people already living in the area. Moving the SCA to a lakeshore or in the lake location should save money, decrease environmental risk to Town of Camillus residents, and provide a means to construct space for something useful to the general public such as a marina/boat launch or more fairgrounds parking. If time is an issue, the revisiting of the SCA location could be done as part of the design phase.



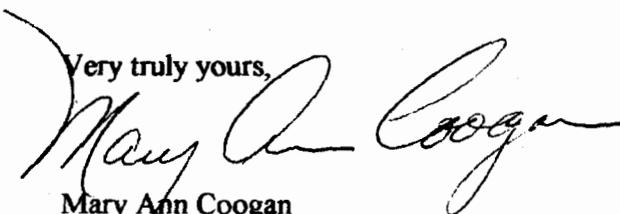
- 2
- A. If the SCA ultimately is located in SB 13, the primary issue is the proactive prevention of odors escaping to receptors in the community. The Honeywell FS and the DEC Proposed Plan acknowledge the potential for odor releases. The details of the odor mitigation plans are to be developed during design; some of the techniques are discussed. Our suggestions are as follows:
- Construct a “Demonstration Size” SCA in the part of SB 13 farthest from the population center in Amboy. The size should be large enough so that it could run long enough to thoroughly validate the process and make corrections if necessary, at the greatest possible distance from people’s homes. We understand that the odors may differ depending on the source of the dredgings, and that below SCA surface discharge and a partial floating cover would be employed at a minimum. We also suggest that odor control technologies be demonstrated in the small SCA for the phase when the SCA is full and water is completely drawn off. That phase may have significant potential for odor release as the dredgings dewater, and preparations should be made in advance.
 - An agreed-upon protocol should be in place prior to operations relative to shut-down while corrections are being made if problems occur. Camillus does not want to be in the position of having to prod DEC or Honeywell to react to problems. A mechanism needs to be created to get feedback from odor receptors to the project team at the earliest sign of problems. We suggest an “Odor Panel” of local homeowners who would monitor air quality in their neighborhoods.
- 3
- B. The pumping operation to move the dredgings to SB 13 and out into the SCA has the potential to generate noise which will be heard in the adjoining neighborhoods. Noise modeling should be done to predict noise impacts and appropriate mitigation should be included in the project.
- 4
- C. Construction activities on-site have the potential to create noise and traffic issues. These issues should be mitigated up front in so far as possible. One very significant mitigation technique would be to use exempt Construction and Demolition waste for pre-loading and constructing the SCA areas. There is a large stockpile of exempt C&D in the eastern portion of SB 15 and some in the western portion of SB 15. Utilizing these materials for construction cuts down on impacts associated with bringing construction materials to the site but also will reclaim space in SB 15 for disposal of non-exempt C&D.

- D. Visual impacts of the proposed SCA in SB 13 should be an immediate priority. Viewscape modeling should be performed to develop a screening plan to shield the view of the SCA from nearby residents and the passerby. Screening techniques could include setting the SCA boundary inboard as far as possible from the current outer berms. Planting of vegetation would need to be initiated soon to be effective at the time of SCA operation. 5
- E. The ability of the existing structure of SB 13 to carry the load for additional sediment, water and the weight of the SCA should be verified immediately. If the load carrying ability is at all suspect, after analysis, then a fresh look at where to put the SCA would be in order. 6
- F. Our understanding at this writing is that there is no consensus between DEC and Honeywell on the quantity of dredgings to come to the SCA, with Honeywell's proposed quantity to be significantly less. From the Camillus prospective, less is better, because of reduced environmental risks. Could the Department please provide a "plain English" explanation why Honeywell's proposal is not sufficiently protective of the lake and its inhabitants? One of the speakers at the January 10 Public Hearing, made the point that the assumptions going into the Risk Assessment are very conservative, thus overstating the risks and making the remedies in the FS even more conservative. Let's not dredge more material than we need to simply because conservative assumptions are superimposed on other conservative assumptions. If the real world risk under Honeywell's proposal is unacceptable, please explain. Perhaps a compromise quantity of dredgings would be agreeable to all. 7
- G. Camillus suggests a Citizen's Panel to play an advisory role in evaluating final uses of the completed SCA if it is within the Town. A wide variety of potential uses are possible and public input is vital to making appropriate choices. 8
- H. Camillus expects and demands an effective monitoring system for any SCA built in Camillus, during construction, during operation, and post closure. This monitoring program should at a minimum include: 9
- The aforementioned "Odor Panel".
 - Air quality sampling locations with sample testing and an agreed upon protocol for determining results of concern.
 - Noise monitoring equipment to validate that activities do not violate the Camillus noise regulations.
 - Groundwater and Surface Water quality monitoring.

- 10 Camillus wants to be part of the review process for the monitoring data, and to be reimbursed for our expenses in evaluating the monitoring data and responding to it.
- 11 I. Security of any new facilities to guard against accidents from snowmobilers, bikers, and others is a must. Any areas with open water or other hazards must be fenced.
- 12 J. The long term financial capabilities to continue post closure care and monitoring must be guaranteed by some form of financial instruments. We must be assured that there is no way that local or County government is saddled with any expenses resulting from the lake cleanup.

Depending on additional public comment, we may have additional comments prior to March 1. We thank you for the opportunity to bring these issues to your attention.

Very truly yours,



Mary Ann Coogan
Camillus Supervisor

cc: Members of the Town Board
Mr. Donald Hesler- NYSDEC
Ken Lynch, Esq. - NYSDEC
John McAuliffe, P.E. - Honeywell
Al Labuz - Honeywell
Dirk Oudemool, Esq. - Town of Camillus
Paul Dudden, P.E. - Barton & Loguidice, P.C.

Office of the Supervisor

TOWN OF GEDDES
1000 WOODS ROAD
SOLVAY, NEW YORK 13209

E. ROBERT CZAPLICKI
SUPERVISOR

PHONE (315) 468-2528 EXT. 7
FAX (315) 488-1544

January 12, 2005

Timothy Larson, P.E.
NYS DEC Project Manager, Onondaga Lake Bottom
625 Broadway
Albany, New York 12233-7016

Dear Mr. Larson,

As Geddes Town Supervisor the town that happens to have the greatest land area involved in the lake cleanup. Let me just say, "It's time to stop talking and start doing." 1

The people of Geddes are the most immediate neighbors of the lake. Most of the people I talk to just want the cleanup to get going. They think 12 years of study and the fact the EPA must ultimately approve the final plan are more than enough reassurance that it's based on solid science. According to the DEC, once the plan is approved there will be an extensive design phase that will involve more scientists and more public meetings.

It is also important to note that once the cleanup is done, the DEC will require Honeywell to remain involved for at least 30 years to make sure that the cleanup is working and is effective. 2

As Supervisor, I have been closely observing this plan from its inception, and will continue to do so to protect the interests of the people of Geddes. I believe my constituents want a revitalized lake and a redeveloped shoreline, not more unproductive debate and unnecessary delay. 1

Very truly yours,



E. Robert Czaplicki, Supervisor
Town of Geddes



• Communication • Collaboration • Commerce

**New York State
Department of Environmental Conservation
Proposed Clean up Plan for Onondaga Lake**

January 12, 2005

**Testimony of
Deborah Warner, Director of Government Affairs
Greater Syracuse Chamber of Commerce**

Greater Syracuse Chamber of Commerce

572 S. Salina St., Syracuse, NY 13202-3320
Ph: 315-470-1800 Fax: 315-471-8545 www.SyracuseChamber.com E-mail: info@SyracuseChamber.com

1

Good evening Commissioner Crotty, Regional Director Lynch, Project Managers Donald Hesler and Timothy Larson, members of the DEC Commission, and distinguished guests.

My name is Deborah Warner and I am Director of Government Relations at the Greater Syracuse Chamber of Commerce. We are the largest business organization in Central New York with more than 2300 member firms employing more than 140,000 working men and women in our community.

On their behalf, I extend our thanks to you for this hearing and the years of dedicated work you have given to the goal of the cleanup of Onondaga Lake. We are delighted and encouraged that after more than a decade we are finally at the point where we are talking about a remedy to implement. The goal is finally in sight. You are all to be congratulated for working through this Herculean task.

I am here tonight to tell you that we support the restoration plan that you have put forth. We believe and trust that all the research and study has yielded a plan worthy of implementation. We agree with Congressman James Walsh when he said, "we have finally found a holistic and thorough approach to cleaning up this valuable community asset."

Our Chamber includes the Onondaga County Convention and Visitors Bureau. Although we already market the lake for a range of events, we are thrilled at the potential of visitors and events after the remediation is complete. Waterways are certainly a huge part of our tourism marketing efforts. Currently, to the naked eye, the activity along the shoreline of Onondaga Lake is a fabulous asset. But the question remains from our out of town visitors, why is there no activity on the water? Imagine the tourism benefits when we can successfully host major fishing and boating events. When DestiNY is built, the value of the lake to us is nearly inestimable.

We urge final approval and implementation of this program as soon as possible. Many projects in and near Onondaga Lake are moving forward, particularly the more than \$200 million Inner Harbor project being done by the DestiNY team. The faster the lake is cleaned up the more development and spin off jobs will occur. Of course we can't ignore the economic impact of over \$400 million over the next seven years in the local economy. We look forward to Honeywell being a valued member of the community for a long time.

I would also ask that in your remediation, you preserve development opportunities on the land that is reclaimed. We believe there will be very strong interest in additional development adjacent to the lake and don't want to lose or limit this economic potential. 2

I know our members want me to give you a vote of confidence in your work. The business community does not doubt the thoroughness or scientific acumen of the DEC and the EPA. We trust that you have not overlooked any aspect of the Remedial Investigation and Feasibility Study. And we trust in the monitoring programs that are part of the plan. 3

We also speak tonight to the Honeywell representatives to voice our wish that they agree to the DEC proposal. 4

One last question we hope you will be able to respond to. The remediation plan is designed to be a permanent solution and will probably need monitoring for generations. Going forward, what assurances can the taxpayers be given that if there's a failure in the cap or an engineered solution they will not be held responsible for such costs? What if Honeywell no longer exists or has merged with another company, who will be responsible for costs in that event? 5

Onondaga Lake is a jewel for this community and the City of Syracuse. The lake is a resource that any city would envy. We gained a lot of notoriety as the most polluted lake in the land. Now we will have a new 1

reputation as an example of state of the art remediation of one of the largest Superfund sites in the nation.

We are looking forward to the earliest implementation of the DEC recommended \$449 million plan.

Thank you again for the opportunity to comment.

GROUPS AND ASSOCIATIONS COMMENTS



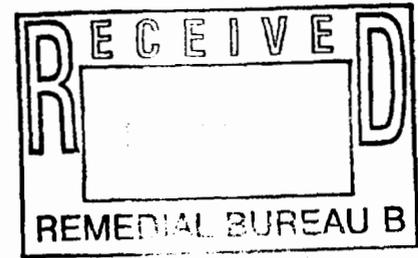
Anam Duan

Franciscan Ecology Center 6-1
P.O. Box 11581 • Syracuse • New York 13218
(315) 559-7634 • fec@anamduan.org



February 25, 2005

Donald Hesler
Onondaga Lake Superfund Site – Public Comment
New York State Department of Environmental Conservation
625 Broadway
Albany, New York 12233-7016



Dear Mr. Hesler:

Anam Duan’s Franciscan Ecology Center would like to provide public comment concerning the Proposed Plan for the Onondaga Lake cleanup. As a local nonprofit agency that engages primarily youth and young adults in environmental education and ecological restoration in the greater Syracuse area, we are very concerned about the health of the Onondaga Lake Ecosystem, not only for this current generation, but also for future generations. We are also concerned not only about the impacts on human health, but also for the health of the entire lake ecosystem which has been severely impacted by industrial and other wastes. As we all know, human health is intimately linked our ecosystem health. We support all efforts to restore the full, natural functioning of the Onondaga Lake ecosystem, including its biological diversity, its complex and interdependent functions, its ecological services, and its ongoing resilience and capacity for self-regulation.

We support measures that permanently restore the Onondaga Lake ecosystem’s full, natural functions and services. We do not support the use of temporary actions that force the lake to depend on expensive, tax payer-funded technological solutions in perpetuity. Before industrial disturbance, the lake ecosystem used solar power, biological diversity, and complex, interdependent processes—which were all free to taxpayers—to maintain its ecological functions, system integrity, and resiliency. As much as possible, the restoration technologies used in the Plan should restore the lake ecosystem’s natural functions so that it may restore its own resiliency and health over time. The current proposed plan should be reviewed for opportunities to restore permanent natural functions rather than rely on “technology dependency.” Examples of potential “technology

“Preparing new generations for a 21st Century planet”

Anam Duan (an’ um doo’ an), n. [fr. Irish *anam* life + spirit *duan* song or poem] - A nonprofit youth & environment organization



dependency” in the proposed plan include any new water or sediment treatment facility, any off-site permitted facility, and the hydraulic containment system.

We support measures that will allow us to solve this problem within this community and by this generation. We do not support the removal of our problems to “off-site” solutions that put our ecological responsibilities on another community or group of people. Because of the existence of systemic environmental injustice that currently exists in U.S. environmental policy and planning, it is unlikely that decisions to select a new “off-site” location for waste disposal will be made adequately with respect to environmental justice. We have a moral imperative to take responsibility as a community for our own past environmental actions and inactions. We also must not force future generations—citizens who will have had no voice in previous generations’ environmental decisions that effect their lives in profound ways—to bear the economic costs and costs to human and ecological health from our inadequate choices. The next generation will not have benefited from the economic profit that resulted from the creation of these industrial wastes, and yet they may have to engage in costly mitigation to undo or redo our own proposed actions. Any decision we as a community make now that forces the next generation to bear these costs will be an injustice. The proposed plan needs to be reviewed in terms of remedial actions that will *not* fully restore the health of the lake ecosystem, and should be revised to prevent inevitable problems for future generations.

4

We are concerned that the proposed plan finds that mercury is present all along the lake bottom, but capping will only be for a portion of the lake. This will not solve the mercury problem. In essence, this proposed capping “solution” appears to also rely on the leaching or otherwise slow release of mercury into the lake biota over time, which will simply allow bioaccumulation in fish, wildlife, and humans of the food web, all of whom will absorb all the remaining uncapped mercury residue that will be released. The proposed plan’s solution appears to be not just a “capping” strategy, but rather a “capping with slow-release bioaccumulation of mercury” strategy that relies on the process of bioaccumulation of mercury in the food chain as the de facto method for permanently ridding the system of mercury.

5

We are concerned about the effluent water resulting from sediment and waste consolidation that will be treated. We are supportive of treatment processes that do not produce additional toxins, and we oppose the creation of any additional new toxins.

6

We support the attempt to find a remedy that would “result in a long-term reduction in the toxicity, mobility, and volume of the key contaminants in Onondaga Lake, including mercury, benzene, toluene, ethylbenzene, and xylenes (BTEX), naphthalene, chlorinated benzenes, and

polychlorinated biphenyls (PCBs) and would enhance the lake as a valued community resource by improving aquatic habitat throughout the lake while achieving the desired objectives and goals.” We are concerned that the goals will only “enhance” the lake as a community resource, and only slightly “improve” aquatic habitat. The goals should include the restoration of the original natural functions of the lake ecosystem without permanent dependence on costly technology.

We would like to see an effort to recruit and train local community members for jobs related 7 to ecological restoration of the lake ecosystem. This should include using youth and young adult conservation corps models, where unemployed youth and college students from the community work seasonally to provide labor for monitoring and remediation work, while also receiving environmental education, basic job skills, and advanced ecological restoration skills that are marketable.

We would like to see volunteer opportunities for community members to volunteer their time to provide labor to restore the lake ecosystem. Community nonprofit organizations can provide the management and logistics of recruiting, training and supervising volunteers, and funding for lake ecosystem restoration could include allocations to local nonprofit organizations to defray costs of volunteer management.

We support the initial assessment that has considered the effects of industrial waste and lake 8 contamination on vegetation and wildlife that are part of the natural lake ecosystem. Since mercury and other contaminants bioaccumulate in wildlife, but the level of bioaccumulation is unknown, we would like an ongoing biological assessment and monitoring component to be a formal part of the plan. We are especially concerned about the level of mercury in deer, waterfowl, and fish that will ultimately be consumed by humans who hunt and fish. We are also concerned about how mercury bioaccumulates in migrating birds and brings mercury to other geographical areas. This process also needs to be assessed and monitored. We are concerned that the recolonization by vegetation of the western and southern lakeshore covered by wastebeds is vegetation that is bioaccumulating toxins. The costs of monitoring and assessment can be reduced by making use of trained community volunteers, students from local colleges and universities, and youth and young adult conservation corps. These labor sources could also take part in habitat restoration and bioremediation along the lakeshore.

We would like to see the restoration of conditions of the lake ecosystem that would again 9 support a cold-water fishery and support previously common fish species including Atlantic salmon (*Salmo salar*), cisco (*Coregonus artedii*), American eel (*Anguilla rostrata*), and burbot (*Lota lota*).

10

We would like to see a major education and communication initiative that informs citizens and other community members of the ecosystem restoration process while it happens, so that the community will understand the effects of industrial wastes, and the processes and efforts involved in mitigating it. This should include a media campaign (website with pictures, videos, etc., newspaper coverage, TV and radio news coverage). It should also offer opportunities for onsite public visits, so that students and other members of the community can watch the ecosystem restoration process as it happens.

11

We would also like Honeywell to formerly address the community about how this process of ecological restoration and industrial waste remediation has impacted their manufacturing processes in the U.S. and abroad, and what new processes and procedures they are using to prevent this from happening in other communities and ecosystems. This is an incredible opportunity for adaptive management, and for developing new processes for sustainable development that do not impair human health and ecosystem health. Other communities and corporations could benefit from Honeywell's experience in this ecological restoration process. Honeywell should agree to publish a document or some other report that could be used elsewhere.

We would like to see a permanent "Never Again" ecological degradation and restoration memorial at the site that describes what happened in the ecologically degraded the area, and what was done to restore it. Honeywell and restoration partners would receive recognition for their efforts to make good on past environmental mistakes.

We thank you for this opportunity to comment of the Proposed Plan for the Onondaga Lake.

Sincerely,



Riobart E. Breen
Executive Director
fec@anamduan.org
(315) 559-7634

Cc: Timothy Larson



Solvay Public Library

CARA BURTON
DIRECTOR

615 Woods Road (315) 468-2441
Solvay, NY 13209 (315) 468-0373 fax
email: cburton@ocpl.lib.ny.us

LETTERS

Letters in Neighbors

The deadline to submit letters for next Thursday's West Neighbors is noon Friday. Letters must be signed originals and include an address and daytime telephone number. Neighbors reserves the right to edit letters and limit the number of letters submitted by a single author. Send letters to Robert Andrews, West Neighbors, The Post-Standard, 5320 W. Genesee St., Suite A, Camillus 13031. You also may fax them to 470-3187 or e-mail to westnews@syracuse.com

the cleanup of Onondaga Lake and is prepared to lead this effort under the supervision of the state DEC.

The lake project is important to the quality of life and economic growth in Solvay and Geddes.

We are proud of the fact that our library has been able to contribute to the research and progress made to date through the library's Solvay Process Room that houses the files of the Allied Chemical Co. Syracuse Works, first known as Solvay Process.

Donated to the library in 1987 when the Solvay plant closed, this archive has been searched by people for information about the plant itself, their relatives, or about the Hazard family home.

In the past two years, however, the collection has been of particular importance to those working on the Onondaga Lake management project.

Environmental engineers, attorneys and publicists have all made use of this collection for information about Onondaga Lake and the impact Solvay Process and its waste beds have had on it.

The trustees of the Solvay Public Library have been promoting its building as a community treasure during our Centennial Building Project to preserve and expand our Carnegie Library, erected in 1905.

It is fitting that our library, built with the assistance of the first president of Solvay Process, houses its files and now serves to assist Honeywell and others by supplying needed information.

As part of our expansion plan, it is our hope to include new space meant for archival storage and preservation for this special collection and for digitizing these materials.

As keepers of this part of the

lake's history, we look forward to recording the next chapters of this story and Honeywell's leadership role.

Our community will reap the environmental, economic and recreational benefits of a restored Onondaga Lake.

Meanwhile, the public can access an overview of the Solvay Process collection at "<http://www.clrc.org/solvay>"

Solvay Public Library Board of Trustees

Lorraine Page, president
Inga H. Barnello, vice president
Mary Kocher, treasurer
Angela Simiele, secretary
John Briggman, Anthony Callisto, Eugene Franchini, members

Library contributes to cleanup of lake

To the Editor:

Trustees of the Solvay Public Library are heartened to see that the Honeywell Corp., which merged with Allied-Signal/Allied Chemical a few years ago, has assumed responsibility for

Comments on the Onondaga Lake Bottom Subsite Proposed Plan

March 1, 2005

Submitted by: Douglas J. Daley, Associate Professor

On behalf of students of SUNY ESF in FEG 489 Engineering Planning and Design:

Kyle Williams
 Gwen Kernan
 Jamie Pentland
 Mike Crawford
 Rob Conden
 Lindsey Clark

State University of New York College of Environmental Science and Forestry
 Syracuse, NY

1. Timing: Delaying the start of remediation until all upland sources are removed or controlled is not necessary. There are admittedly portions of the lake that are directly impacted by continuing upland sources, and source control in these instances is essential before remediation commences. However, an area like SMU 5 is not impacted by the upland sources to the same extent. Commencing dredging and capping actions in this area at the earliest possible time provides an early benefit, and provide invaluable experience in rigorous application of construction methods, debris and sediment control, sediment removal and cap placement that could be later applied in the critically impacted areas (like SMU 4 and the ILWD). 1
2. Oxygenation: Oxygenation of the hypolimnion is proposed as the primary mechanism to mitigate methyl mercury generation. I have severe reservations about this technology as a long term solution. I see it as a short-term (10- to 15-year) interim measure. A permanent long-term solution could be developed in that interim. Technological and political issues abound: 2
3. How does one ensure complete mixing of oxygenated waters?
4. In the event of an energy crisis, will the public be faced with the choice of paying high or exorbitant operating costs versus shutting off the system and allowing mercury to enter the food chain again? 3
5. Will a trust fund be established to ensure that the operating, maintenance and replacement costs are covered in perpetuity?

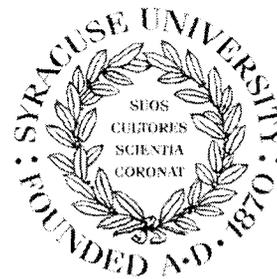
- 4 6. Given the high oxygen demand that exists already from biological and anthropogenic sources, how much of the system design will address the baseline oxygen demand?
- 5 7. There still seems to be an inherent disconnect between the extensive capping in the littoral zone and the control of pollutants in the water column. The necessity for the cap escapes me. There will be extensive habitat disruption during the dredging and cap placement. What mechanism will be used to restore the habitat at completion of construction? Why disturb the sediments at all, if the main purpose of the cap is to minimize erosion due to wave action, and oxygenation will address the methyl mercury formation in the littoral zone?
- 6 8. After removing sediment (and benthic organisms) from the bottom of Onondaga Lake, how will you repopulate the clean sediment added in for the cap with benthic organisms?
- 7 9. Once the lake is “clean” by the nitrification and phosphate removal processes at the Metro plant, will the zebra mussels aid in breaking down remaining contaminants? Will they have any other adverse effects on the lake, since they are likely to move in once it is cleaner?
- 8 10. What evidence supports the design thickness of the isolation cap as being able to preclude migration of contaminants such as mercury and PAHs through diffusion, advection and dispersion?
11. The proposed materials (sand and gravel) will still allow contaminant migration via diffusion.
12. Methylation of mercury will still occur under the isolation cap in the anaerobic sediments. This can still be transported through the isolation cap, although the travel time will be longer, mercury will eventually enter the water column.
- 9 13. What consideration has been given to the fact that ebullition will continue after remediation? This will disturb the isolation cap, and create short circuiting that will allow mercury to be transported to the water column.
- 10 14. What are the management plans for the future of Onondaga Lake? (e.g. A hotel bordering the lake or a trail path. Do you hope to make the lake swimmable and fishable?) Will the ultimate use have an effect on amounts of sediment removed and the areas of removal?
- 11 15. How exactly do the silt curtains work? What is the smallest size particle that can pass through it? There will be a tremendous amount of sediment disturbed during dredging; this will be transported into other areas of the lake.
- 12 16. How were the SMUs divided up? Do the ecological characteristics vary from SMU to SMU? In SMUs 3, 5, and 6 for example, there are littoral sections that do not require remediation.

How were these areas determined, considering areas needing both dredging and isolation capping surround them? Will these areas be isolated during construction?

17. Where will the materials for the capping come from? Are there sufficient resources near the lake to carry out the remediation at a satisfactory cost? Will the materials have a significant impact on the water chemistry (e.g. alkalinity)? 13
18. Ongoing oxygenation is not a permanent solution because there are a number of factors that could influence its long-term success that are currently unknown. 14
19. In-the-dry sediment removal /dredging is more expensive, but potentially offers greatest benefit in the long term (e.g. 100 years). The cost and technical feasibility of removing the greatest amount of mercury contaminated sediment seems to be a better permanent solution than dealing with the uncertainty associated with oxygenation and isolation cap performance. 15
20. Preference should be given to solutions that are ecologically sustainable; extensive requirements for high energy input processes (e.g. oxygenation, dewatering, pumping) have proven to be infeasible for many conventional systems nationwide. 16
21. the method of cap material placement is likely to cause displacement of underlying contaminated sediments, even after dredging, through advection. 17
22. The SCA site location should be confined to current or inactive waste management areas near Onondaga Lake. Use of any other site is unacceptable. 18
23. Would the export of sediment from the lake to Wastebed 13 change the regulatory status of the wastebedsto a RCRA-permitted facility? 19
24. Using a cap comprised of sand and gravel merely limits the movement of contaminated sediment in the short-term. Long-term geomorphological changes, groundwater movement, and extreme weather events can all contribute to cap failure, thereby exposing humans and wildlife to contaminated sediments. 20

Douglas J. Daley
 Associate Professor
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 State University of New York
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 Syracuse, NY 13210
 (315) 470-4760 (315) 470-6958 (fax)

(comment received via e-mail from djdaley@esf.edu on 3/1/05)



March 1, 2005

Mr. Don Hesler and Timothy Larson
 NYS DEC
 625 Broadway
 Albany, NY 12233

Dear Mr. Hesler and Mr. Larson,

We are writing to provide comments on the State's proposed plan to address the impacts of the Honeywell site on Onondaga Lake. First we would like to clearly indicate that we endorse the plan in general. Honeywell and its consultants and the State and its consultants have spent considerable time and effort attempting to understand sources of contamination to the lake, and the fate and transformations of these contaminants. Also considerable care has been taken to develop preliminary plans for the remediation of the lake, including a large number of alternatives. With the information provided, we cannot endorse one alternative over another. Nevertheless, we strongly believe whatever remediation plan is selected should be implemented as soon as possible.

While we are pleased to see that the remedial investigation/feasibility study (RI/FS) process is proceeding, we are disappointed that the State has decided to rely solely on a "build and measure" approach. We are aware that the original plans were to develop and use models as part of the RI/FS process and that for a variety of reasons the State rejected this approach. The reason given in the public comments for the failure of developing a model is that the system is "too complicated". We reject this thinking. Our perspective is that the elimination of modeling reflects a fundamental lack of understanding of the sources, transport, fate and transformations of the Honeywell contaminants.

We strongly recommend the development of process-oriented contaminant mass balance models, supported by comprehensive monitoring of the site. We envision that this would proceed in parallel with, but outside of, the SuperFund process. Effective communication of progress, performance, findings and model evaluations from this program would allow for the option of utilization of these tools to support potentially important management decisions, as well as providing ongoing critical insights for all stakeholders. Contaminant models should be an integral component of rehabilitation efforts for the lake.

We have a major concern that the many aspects of contaminant behavior in Onondaga Lake are not understood. There are two observations, in particular, which call into question the basic understanding of contaminant behavior in the Lake and challenge the potential for

- 4 rehabilitation of the Lake. First, the measured losses of mercury exceed the measured inputs of mercury by a large extent. This observation suggests that there is not an adequate understanding of the sources of mercury to the Lake. Second, although there has been a marked decrease in the mercury loading to the lake since the early 1970s (as evidence of sediment mercury deposition), there has been no corresponding change in fish mercury concentrations. This observation suggests that previous large decreases in mercury loading have not changed the major exposure pathway of mercury to humans and wildlife. The logical explanation is that at this time fish mercury is not regulated by mercury loading to the lake. This observation is worrisome if controls on mercury inputs are expected to result in decreases in fish mercury concentrations. One might speculate that the very high rate of methyl mercury production regulates fish mercury concentrations. However to our knowledge this hypothesis has never been tested. Presumably the reason for inclusion of hypolimnetic oxygenation in the State's rehabilitation plan is to reduce the in-lake supply of methyl mercury and reduce fish mercury concentrations. Unfortunately, the RI/FS did not determine if the supply of methyl mercury to fish largely occurs in the hypolimnion, as opposed to littoral sediments. Moreover, to our knowledge there has never been a study of mercury response to hypolimnetic oxygenation. Without this basic understanding of mercury inputs and transformations how can stakeholders be assured that a very expensive remediation program will be successful? How will it be possible for the State, as stewards of this resource, to communicate to stakeholders how the lake will respond to remediation activities? The development of a well-tested and credible model(s) would go a long way in demonstrating this understanding and guiding the rehabilitation effort.
- 5

Further, a modeling program should also address the fate and transport of selected components of the organic contaminants from the Honeywell site. These constituents clearly have their own set of impacts and their behavior diverges strongly from that of mercury.

- 6 A second concern that we have with State's plan is the lack of detail on the Lake monitoring program. Of course monitoring is a critical component of a "build and measure" program. In the public forums, the State clearly has indicated the need for a rigorous monitoring program, stating that this monitoring program would be developed in the design phase of the process. We have several concerns with a monitoring program:

- We believe that a monitoring program should be conducted by an independent, objective organization(s) with experience in Onondaga Lake and the relevant contaminants (e.g., mercury) that will rigorously publish the results of these measurements and routinely make this information available to all stakeholders;
- The monitoring program should be comprehensive and include measurements that will allow for complete interpretation of the response of contaminants to changes in inputs from rehabilitation and other drivers;
- Given the lack of comprehensive background data and time-series on mercury and other contaminants, a monitoring program should be initiated immediately even at the risk of being not fully integrated with the overall rehabilitation design program; and
- The monitoring should be fully integrated with a contaminant modeling effort.

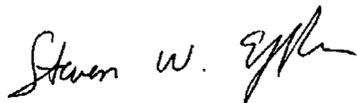
In summary, an integrated program of monitoring and modeling needs to be implemented to understand and track the Honeywell site contaminants in Onondaga Lake. The goals of such an initiative would be to:

- Develop a quantitative understanding of the behavior of Honeywell site contaminants in the Lake in the form of scientifically credible mathematical models;
- Apply the models to forecast/predict the benefits of a clean-up program;
- Apply the models to: 1) establish reasonable expectations from the cleanup effort; 2) establish the feasibility of reaching cleanup goals; and 3) evaluate the effects of other initiatives (i.e., METRO upgrades) and natural variability;
- Track the Lake rehabilitation through a comprehensive and long-term monitoring program; and
- Make information available to stakeholders and agencies in a timely manner.

We also want to stress the critical opportunity that the Onondaga Lake rehabilitation effort provides. This is a great opportunity for the community of Central New York. But maybe more importantly this represents an important opportunity for New York State, and indeed the entire country. As you know there are more advisories for mercury on lakes in New York (and the entire country) than any other contaminant. We have limited knowledge of long-term patterns in lake mercury or how lake ecosystems respond to decreases in loading. A rigorous monitoring and modeling program for Onondaga Lake would provide the tools and understanding that are needed in New York State to address the widespread problem of mercury contamination for other resources beyond Onondaga Lake.

If you have any questions, please do not hesitate to contact us. Additionally, you will find selected specific comments on the State's "Proposed Plan" document attached.

Sincerely,



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Selected Specific Comments: Onondaga Lake PP Comments

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|------------|-------------|---|
| 1. | 9 | The statement that the primary waste contaminant associated with soda ash and related material production at the site was Solvay waste is questionable, if not incorrect. Ionic wastes (Ca ²⁺ , Na ⁺ , and Cl ⁻) were arguably primary , and had major impacts on the lake and downstream waters. Residual ionic waste inputs continue to have important impacts (Effler and Matthews 2003). |
| | 10 | |
| 2. | 15 | Several factors contributing to the bi-directional flow regime at the lake's outlet are listed (P2). However, the lake's elevated salinity, omitted from the listing, is also an important factor (Effler and Matthews 2003). A substantial portion of the elevated salinity is attributed to residual waste inputs from the site. |
| | 11 | |
| 3. | 15 | Hypolimnetic oxygen depletion is promoted by anthropogenic phosphorus loading. In the last paragraph tributaries and Metro are listed as sources. While not an inaccurate statement, it is misleading as Metro represents 85% of the bioavailable phosphorus load. The 15% from the tributaries is only partly anthropogenic (Effler et al. 2002). |
| | 12 | |
| 4. | 16 | The single value of dissolved solids loading from Solvay Wastebeds 9-15 (P1) to Ninemile is potentially misleading. For what year does this estimate apply? A progressive decreasing trend has been documented (Matthews and Effler 2003). |
| | 13 | |
| 5. | 21 | Why aren't load estimates presented for the various contaminants, according to the identified sources? The fifth item under the second bulletin asserts groundwater inputs as the most important loading pathway for several contaminants. Are any related loading estimates available? |
| | 14 | |
| 6. | 21 | Resuspension of the ILWD as a significant source of Hg (and other contaminants) to the lake, perhaps the largest internal input? The potential of this pathway has been established, but the magnitude has not. This would have required application of appropriate quantitative tools (model(s)). |
| | 15 | |
| | | The profundal sediments as a major source of Hg, also lacks quantification. |
| | | These two (2) assertions (ILWD) and profound sediments) are repeated in several instances through the following portions of the report. |
| 7. | 22 | Several potential features of Hg cycling are presented but remain |

largely unquantified. Their relative importance can only reasonably be represented within credible models. One area of particular concern is the role of littoral sediments in supplying methyl mercury to the lake. If this is an important pathway, it would challenge the effectiveness of hypolimnetic oxygenation as a management approach.

- Hypolimnetic accumulations are transported to overlying waters during the approach to fall turnover, not after turnover (last bullet under mercury). 17
8. 23 First item under "Calcite Precipitation and Ionic Wastes". There is no evidence that remediation of the Mud Boils has resulted in reduced in-lake sedimentation rates. Recently presented findings (6th Annual Onondaga Lake Research Forum; Prestigiacomo et al. 2005. Insights from the Robotic Water Quality Monitoring Network. III. Sediment Loading in Onondaga Creek) indicated no systematic reduction in solids loading from Onondaga Creek. Perhaps this reflects the large residual in-stream sediment deposits from earlier mud boil inputs. 18
9. 39 What is the precedence for the PECQ approach adopted, including its manner of determination? How many SuperFund sites have adopted this approach? Is there any support for the approach in the peer-reviewed literature? 19
10. 42 What is the State's position with respect to having to base sediment clean-up initiatives on acute toxicity testing results rather than chronic toxicity testing observations? 20
11. 53 Aeration will of course interact strongly with the effects of domestic waste inputs. Does the state agree the interplay between manifestations of industrial and domestic waste discharges in response to this action will need to be tracked carefully? 21
12. 54 Monitored Natural Recovery. Despite the major reduction in deposition/sedimentation brought about by the reduction in Ca^{2+} loading, associated with closure, most of the continuing sedimentation is arguably associated with residual effects of the industry. Specifically, external sediment loading is dominated by mud boil inputs (via Onondaga Creek), and internal sediment production of CaCO_3 inputs. This needs to be made clear to all stakeholders. 22

References

- Effler, S.W. and D.A. Matthews. 2003. Impacts of a soda ash facility on Onondaga Lake and the Seneca River, NY. *Lake and Reservoir Management* 19:285-306.

Effler, S.W., S.M. O'Donnell, D.A. Matthews, D.M. O'Donnell, M.T. Auer and E.M. Owens. 2002. Limnological and loading information and a phosphorus Total Maximum Daily Load (TMDL) analysis for Onondaga Lake. *Lake and Reservoir Management* **18**:87-108.

Matthews, D.A. and S.W. Effler. 2003. Decrease in pollutant loading from residual soda ash production waste. *Water, Air and Soil Pollution* **146**:55-73.