

The Commonwealth of Massachusetts

Executive Office of Environmental Affairs

251 Causeway Street, Suite 900

Boston, MA 02114-2119

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December 1, 2003

**CERTIFICATE OF THE SECRETARY OF ENVIRONMENTAL AFFAIRS
ON THE
SPECIAL PROCEDURE: PHASE II –
DEVELOPMENT AND SCREENING OF WASTEWATER ALTERNATIVES**

PROJECT NAME : Comprehensive Wastewater Management Plan
PROJECT MUNICIPALITY : Nantucket
PROJECT WATERSHED : Islands
EOEA NUMBER : 12617
PROJECT PROPONENT : Town of Nantucket
DATE NOTICED IN MONITOR : October 7, 2003

As Secretary of Environmental Affairs, I hereby determine that the Phase II Document: Development and Screening of Wastewater Alternatives, submitted on this project **adequately and properly complies** with the Massachusetts Environmental Policy Act (G. L., c. 30, ss. 61-62H) and with its implementing regulations (301 CMR 11.00).

OVERVIEW

The Town of Nantucket is developing a Comprehensive Wastewater Management Plan/Environmental Impact Report (CWMP/EIR) to address the short-term and long-term issues relating to the island's wastewater treatment and disposal needs. The goal of the CWMP/EIR is to examine the full range of Nantucket's wastewater management needs, and identify environmentally sustainable treatment and disposal alternatives that respond to the community's needs, and meet water quality and public health standards. The result will be a comprehensive plan outlining how the Town of Nantucket will treat and dispose of its sanitary sewage for the next 20 years.

This project is subject to the Mandatory EIR provisions of the MEPA regulations since it will likely involve construction of more than ten miles of new sewers and may exceed other Mandatory EIR thresholds. The project will require several permits from the Department of Environmental Protection (DEP) for sewer extensions and connections, as well as compliance with revised water quality discharge limits specified in the federal National Pollutant Discharge Elimination System (NPDES) permits issued by the U.S. Environmental Protection Agency (EPA). Because the project will receive funding or financial assistance from DEP under the State Revolving Fund, this project is subject to broad scope jurisdiction under MEPA.

Special Review Procedure

The Secretary's Certificate on the ENF/Phase I (EOEA #12617, November 16, 2001) granted the Town of Nantucket's request for a Special Review Procedure (SRP) for this project to facilitate the Town's development of environmentally sound wastewater management practices. The SRP provided for the filing of three documents: Phase I, including a definition of existing conditions, the Needs Analysis, and the Screening of Alternatives; Phase II, the Draft CWMP and EIR, including the development and screening of wastewater management alternatives to address the needs defined in the Phase I document; and Phase III, the Final CWMP and EIR. The Town filed the ENF and Phase I report on October 10, 2001. The Secretary's Certificate on the ENF/Phase I (EOEA #12617, November 16, 2001) found that additional information was needed in the areas of project needs and alternatives before Phase I could be determined to be complete and adequate. In a May 17, 2002 letter to the proponent, the Secretary authorized the proponent to incorporate the requested additional Phase I information, and response to comments received on the ENF and Phase I report, within the Phase II document.

Phase II – Development and Screening of Alternatives

The Certificate on the ENF/Phase I document also required the proponent to evaluate and screen all potential treatment alternatives and groundwater disposal sites that could address the needs and problems identified in the Phase I – Needs Analysis document. The treatment alternatives to be considered included the full range of options available under Title 5 (conventional and innovative/alternative systems, both for individual properties and for shared and communal facilities to service multiple properties), and a centralized or decentralized satellite wastewater treatment plant with groundwater discharges.

The proponent was also asked to develop and apply an appropriate set of screening criteria in the Phase II document. These criteria include cost (both to individuals and the community), technical feasibility, environmental and public health protection (including maintenance of water balance in drainage sub-basins), institutional and management issues, and other relevant concerns.

The Certificate on the ENF/Phase I document required the Phase II document to include a detailed discussion of the proposed project's consistency with Executive Order #385 (Planning for Growth), and the Town of Nantucket's January 2001 Comprehensive Community Plan. Using the proponent's projections for future growth, the proponent was required to provide a summary in the Phase II document pertaining to the Town's existing and projected water supply demand.

Lastly, the proponent was required to include in the Phase II document a draft scope for the detailed environmental evaluation of selected alternatives for the Phase III (Draft EIR) report and for the development of a Draft Facilities Plan. Additionally, the Phase II report was required to contain responses to those comments received on the Phase I report.

As described in the Phase II document, the recommended plan involves upgrading and expanding the existing Surfside Wastewater Treatment Facility (WWTF), construction of a new Madaket Wastewater Treatment Facility, and construction of new sewers to service the wastewater flows generated from 5 Needs Areas (Madaket, Monomy, Shimmo, Somerset, and Warrens Landing).

Under the proponent's preferred alternative, a Septage Management Plan will be designed for the Town's 5 remaining Needs Areas (Pocomo, Polpis, Quidnet, Wauwinet, and Town WPZ).

GUIDANCE FOR THE PHASE III REPORT

I have reviewed the Phase II document for the proposed project, and while I find that the report provides a wealth of information, there are several issues that will require further study as part of Phase III, so that they may be considered in the evaluation of the proponent's Recommended Plan. I believe this information can be developed prior to the evaluation of the most feasible options and can be reported in the Phase III document.

Land Alteration in High Hazard Areas

In their comments on this Phase II document, CZM has expressed concerns with the proponent's proposal to install common sewer mains, and other municipal sewer infrastructure, in coastal high hazard areas within the velocity zone of the 100-year storm event.

The Phase III document should respond to CZM's comments. Specifically, the Phase III document should identify the Federal Emergency Management Agency's (FEMA) mapped flood zones for Nantucket using FEMA's paper flood maps, and the location of any/all proposed sewer lines, infiltration beds, pump stations, treatment facilities, and any other sewer infrastructure. The proponent should discuss the consistency of the project proposal with Executive Order 149 that directs state permitting programs to consider flood hazards in the evaluation of land use plans. Lastly, in the event that the preferred alternative calls for sewerage in coastal high hazard flood areas, the Phase III document should demonstrate that the proposed sewerage project has been designed to eliminate or minimize, to the greatest extent practicable, the infiltration of flood waters into the wastewater collection and treatment system ~~and~~ wastewater discharges into the flood waters.

Projected Wastewater Flows

In their comments, DEP has requested that the proponent include in the Phase III document a detailed wastewater flow analysis for the recommended sewer collection and treatment systems proposed for construction of the Madaket WWTF and expansion of the Surfside WWTF. The proponent should respond to DEP's comments and present the wastewater flow analysis using the format provided by DEP in their comment letter.

Reductions in wastewater flow will also play a significant role in meeting Nantucket's long-term wastewater treatment and disposal needs. Reduction of wastewater flows can be achieved by reducing infiltration/inflow (I/I) levels, implementing aggressive water conservation programs, and increasing wastewater reuse (for example, for irrigation purposes). I encourage the proponent to include in the Phase III document proposed tools to improve water conservation including, but not limited to: outdoor water use restrictions and water use rates; retrofitting of municipal buildings with low flow devices; enactment of a bylaw regulating automatic sprinklers and/or clearing of land for grass lawns; promotion of the use of cisterns for outdoor watering; the use of a water bank; and the promotion of the use of new grey-water systems.

Groundwater Discharge and Sub-basin impacts

The groundwater recharge of wastewater and stormwater should be a key component of the proponent's comprehensive wastewater management plan in order to "keep water local" and minimize the potential for basin inflow/outflow imbalances. The proponent was asked to give consideration to local groundwater disposal options that maintain discharges in the sub-basins in which they are now occurring, wherever possible, in order to recharge local groundwater and maintain and enhance base flow in tributary streams.

The Phase II report identifies and screens 14 potential sites for wastewater treatment and/or groundwater discharge. The proponent identified a total of 2 sites (the Surfside Wastewater Treatment Facility, and the Federal Aviation Administration (FAA) site) for use as wastewater treatment facilities and groundwater disposal sites for treated wastewater effluent. As described by the proponent, numerous environmental constraints including poor soils, high groundwater, and lack of suitably sized land parcels precluded the proponent's ability to locate groundwater disposal sites so as to provide recharge to currently stressed individual sub-basins.

According to DEP, the project will require a groundwater discharge permit from DEP. The proponent will also be required to design and implement a groundwater monitoring plan for the area downgradient of the proposed Madaket WWTF's discharge site. The Phase III document should include a description of the proponent's groundwater monitoring plan.

Cost Estimates

As described in the Phase II document, the recommended plan involves upgrading the existing Surfside Wastewater Treatment Facility (WWTF), construction of a new Madaket Wastewater Treatment Facility and new sewers to service the wastewater flows generated from 5 Needs Areas (Madaket, Monomy, Shimmo, Somerset, and Warrens Landing). The recommended plan has been designed to be constructed in 7 phases over a twelve year period, and will cost an estimated \$92.1 million dollars.

A number of commenters have expressed confusion with the proponent's recommended comprehensive wastewater management plan (approximately \$92.0 million) and the proponent's brief mention of a separate plan (approximately \$83.3 million) for rehabilitating the Town's existing wastewater and stormwater infrastructure to eliminate excessive infiltration and inflow (I/I), and stormwater flooding from being discharged into Nantucket Harbor. The Phase III document should identify which components of the Town's stormwater and wastewater infrastructure improvement plan, if any, are proposed for inclusion in the proponent's recommended comprehensive wastewater management plan.

The Phase III report should provide cost estimates (both capital and operating) for each component of the proponent's recommended plan (Madaket WWTF, Surfside WWTF Expansion, and possibly the rehabilitation of Nantucket's existing wastewater and stormwater infrastructure). The Phase III report should include a projection of the preferred alternative's impact on local sewer rates, and a comparison of the resulting local sewer rates to MWRA and statewide averages.

The Phase III report should include a presentation of the average household costs (capital and O&M) for: households located within a Sewer Overlay District and connected to the sewer system; households located within a Sewer Overlay District and not connected to the municipal sewer system; and households not located within a Sewer Overlay District who will continue to be serviced by on-site Title 5 septic systems and a Septage Management Plan.

The Phase III report should include estimates for the costs of land acquisition associated with groundwater discharge options. Cost evaluations for groundwater discharges should only include the land acquisition costs for the needed acreage for recharge beds, plus a reasonable buffer zone (as opposed to the entire parcel). The Phase III document should also include detailed proposals, with cost estimates, for increasing wastewater reuse, and implementing aggressive water conservation programs.

Planning for Growth (Executive Order 385)

Executive Order #385 requires that state and local agencies engage in protective and coordinated planning oriented towards both resource protection and sustainable economic development. For reasons of both environmental protection and fiscal prudence, investments in public infrastructure should be carefully targeted toward those areas for which clear existing needs have been established and for areas where denser development is appropriate, thereby relieving development pressures on open space, agricultural lands, and other valuable natural resources.

The Phase II document mentions the use of "Sewer" and "Septic" Overlay districts as a means for controlling the potential secondary growth impacts that may be induced by public sewers in Nantucket. The Phase III document should provide a detailed discussion of the proponent's proposed Sewer and Septic Overlay Districts and discuss their consistency with local and regional growth management policies. On a plan of reasonable scale, the proponent should identify the overlay districts that may be proposed for each of the Study Areas identified in the Phase I document. The proponents should include the results of any existing build-out analyses prepared for Nantucket.

Additional growth control measures can be included in the Final Facilities Plan and during the design and permit review process leading to the issuance of Sewer Extension Permits. The Town should note the attached comments and should attempt to incorporate suggestions contained in those comments into final design of the project where they are appropriate. I encourage the proponent to consult with DEP, the Nantucket Planning and Economic Development Commission (NP&EDC), and the Growth Management Policy staff at the Executive Office of Environmental Affairs as it develops its growth management strategy.

Historical / Archeological Resources

According to comments received by the Massachusetts Historical Commission (MHC), the proposed project areas contain archaeological sites associated with Native American occupation of Nantucket. MHC has requested that the proponent conduct an intensive archaeological survey of the project site.

The proponent should respond to MHC's comments and provide MHC with copies of the completed results for any historical or archaeological survey work conducted for the proposed Madaket WWTF site (FAA site) and the proposed expansion area of the Surfside WWTF. The proponent should continue to consult with the Massachusetts Historical Commission (MHC) in the completion of its archeological investigations for the proposed project.

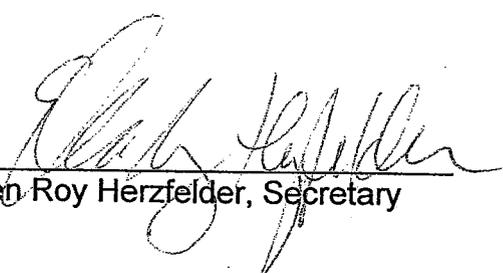
Scope of Phase III Document

The Town of Nantucket should continue to work with DEP, CZM and others to finalize the Phase III document. In their comments, DEP has requested that the proponent's proposed project implementation schedule be revised to incorporate the provisions of the Administrative Consent Order (ACO) recently entered into between DEP and the Town of Nantucket.

The Phase III document should contain copies of all comments of all previous MEPA certificates, including this one. Copies of the Phase III document should be distributed to all commenters on previous documents. To ensure full and informed public review, copies should also be distributed to the Town of Nantucket's Planning Board, Conservation Commission, and Board of Selectmen.

December 1, 2003

DATE


Ellen Roy Herzfelder, Secretary

Comments received:

10/21/03	MA Historic Commission (MHC)
10/31/03	Dr. Robert A. Rudin
11/03/03	Lars O. Soderberg, P.E.
11/03/03	Sylvie O'Donnell
11/04/03	Debby Deeley Culbertson

11/04/03 Debbi Deeley Culbertson
Comments received: (continued from previous page)

11/05/03 Massachusetts Division of Marine Fisheries
11/05/03 Board of Selectmen – Town of Nantucket
11/06/03 Nantucket Land Council, Inc.
11/06/03 Nantucket Sustainable Development Corporation
11/06/03 Wannacomet Water Company
11/06/03 Nantucket Community Association
11/06/03 Marjorie B. Colley
11/06/03 Nantucket Civic League
11/07/03 Nantucket Planning and Economic ~~Development~~ Commission
11/07/03 Deborah B. Bennett
11/07/03 Clark M. Whitcomb
11/06/03 Massachusetts Department of Environmental Protection – SERO
11/04/03 Massachusetts Coastal Zone Management (CZM)

SRP/II 12617
ERH/NCZ/ncz



The Commonwealth of Massachusetts
William Francis Galvin, Secretary of the Commonwealth
Massachusetts Historical Commission

RECEIVED

OCT 21 2003

MEPA

October 16, 2003

Secretary Ellen Roy Herzfelder
Attn.: Nicholas Zavalas, MEPA Office
Executive Office of Environmental Affairs
251 Causeway Street, 9th Floor
Boston, MA 02114-2150

RE: Comprehensive Wastewater Management Plan/Environmental Impact Report, Nantucket
MHC #RC.22107, EOEA #12617

Dear Secretary Herzfelder:

Staff of the Massachusetts Historical Commission have reviewed the Draft Environmental Impact Report (DEIR) Phase II—Alternatives and Site Identification for the proposed project referenced above. MHC staff have also reviewed a Project Notification Form for the upgrade of existing treatment and disposal facilities at the Surfside Wastewater Treatment Facility (WWTF) and construction of a new WWTF at Madaket and have the following comments.

The two project areas are located on the island of Nantucket, which is listed in the National and State Registers of Historic Places as a historic district and is designated a National Historic Landmark.

The project areas are archaeologically sensitive and undisturbed portions of the areas are likely to contain archaeological sites associated with the Native American occupation of Nantucket. The areas' archaeological sensitivity is determined by their favorable environmental characteristics including areas of well-drained soils and relatively level terrain. Native American archaeological sites are often found in similar environmental settings, especially sites that date from the seventeenth and eighteenth centuries, when the Native people of Nantucket were forced to settle outside the Nantucket Harbor area. During this time Native settlement was reported in the areas of Madaket and Miacomet, in the vicinity of the two project areas.

MHC requests that an intensive (locational) archaeological survey (950 CMR 70) be conducted for the project impact areas. The purpose of the intensive survey, which must be conducted under a permit from the State Archaeologist, is to locate and identify any historic or archaeological resources that may be affected by the proposed upgrade of the Surfside WWTF and construction of the Madaket WWTF. Although the DEIR states that "a Step I Historical and Archaeological Survey was conducted for the FAA [Madaket] site and the proposed expansion area of the Surfside Wastewater Treatment Facility" (DEIR, p5-40, Appendix H), MHC has never received a report on this survey, nor has an application for a State Archaeologist's Permit (950 CMR 70) been submitted for such a survey.

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www.state.ma.us/sec/mhc

These comments are offered to assist in compliance with Massachusetts General Laws, Chapter 9, Sections 26-27C (950 CMR 71) and MEPA. If you have any questions concerning this review, please feel free to contact Eric Johnson at this office.

Sincerely,



Brona Simon
State Archaeologist
Deputy State Historic Preservation Officer
Massachusetts Historical Commission

xc: Thomas E. Parece, Earth Tech
Michael Pappalardo, Earth Tech
DEP, SERO
Nantucket Historic District Commission
Nantucket Historical Commission

NZ

15 Starbuck Road
Nantucket, MA 02554
27 October 2003

Ellen Roy Herzfelder
Executive Office of Environmental Affairs
Attention: MEPA Office
251 Causeway Street, Suite 900
Boston, MA 02114
EOEA No. 12617

RECEIVED

001 3 1 2003

MEPA

Dear Sirs,

**SUBJECT: EOEA No. 12617, COMPREHENSIVE WASTEWATER
MANAGEMENT PLAN AND DRAFT ENVIRONMENTAL IMPACT
REPORT, NANTUCKET, MASSACHUSETTS**

Having studied this report carefully, and attended two public information meetings held by the preparing consultants, I am writing to express my concern as a scientist and a year-round resident of the Madaket area of Nantucket, with both the presentation of the data, and the conclusions drawn there from, specifically as they relate to the Madaket area. I am certainly not imputing any motives to the preparers, but being familiar with the area, it does appear to me that the data has been selected and analyzed in such a way as to identify a "problem" which could only be solved by the construction of a low-pressure sewerage system. I have noted multiple errors and selective presentations of data in favor of this result, but no similar errors which support any other conclusions. I do not believe that the current situation has been properly analyzed, nor alternative suggestions adequately examined.

The MEPA Certificate issued for Phase 1 of this investigation requested details of the study methodology used; the reply to this request was documented in Section 1 of this Phase 2 Report, and it is this section which has given me the most concern.

- A. The Report contends that if greater than 30% of an area has severe soil limitations, or if greater than 20% of an area has severe groundwater limitations, then it is not possible to install a modern

Title 5 septic system, and the Report presents a sample calculation to support that contention (p. 1-6). The sample calculation is severely flawed; it has applied the percentage limitations of the entire area to each individual lot in that area, a leap of reasoning which conflicts with the actual situation. I do not doubt the quoted USDA data regarding the area percentage of groundwater and soil limitations, but the Madaket area consists of large tracts of wetlands which are clearly undevelopable, and also much land which is high, dry, and with suitable soils. Only a limited number of developed properties contain or border on wetlands, or are low enough to raise groundwater concerns. The assumption that all developed lots share the area impairment percentage virtually guarantees that such a calculation will give a negative result.

- B. The sample calculation referred to above makes several further assumptions which are severely flawed; the reality is that development in the Madaket area has been primarily smaller houses, very few of which are 4-bedroom homes, and most have a footprint considerably less than the 1800 sq. ft. used in the example. Furthermore, many Madaket-area homes are built on slabs, or with only crawlspaces, reducing the setback requirement for septic systems to half that used in the example.
- C. On page 1-8, the Report states that, since the revised Title 5 regulations came into effect in 1995, the "failure rate" for Title 5 inspections has been 44%, and this result is used as another negative factor in the evaluation. At both the public meetings I attended, one prior to publication of the report, and one after publication, the consultant agreed that their use of the word "failure" did NOT mean that any of the systems so classified were polluting due to physical failure, but it meant that 44 percent of systems inspected did not comply with the revised Title 5 criteria. This is hardly surprising, as those systems had been constructed prior to the effective date of the new regulations. The fact that the non-compliance was noted in an inspection prior to sale, leading to corrective measures, is a sign that the Title 5 system is working, not that individual septic systems are faulty.
- D. On page 1-28, estimated wastewater flows are used as another criterion to evaluate several proposals. Without comment by the

consultants, the flow estimates for the Madaket area, which are then used in this evaluation, include an increase of 67%. This appears to be based on an assumption that 67% of the existing developed properties will in the future add a second dwelling, which is allowed **in principle** on Nantucket. In practice, very few second dwellings could be built in the Madaket area due to covenants placed on the deeds of many properties when that part of the land was originally subdivided, due to zoning-enforced ground-cover restrictions, and due to current Title 5 water well-septic system separation requirements.

When presented with some of these questions at a public meeting, the consultants stated that it was necessary to make "some assumptions" in order to reach a conclusion. I respectfully suggest that the assumptions made were poorly chosen, and that the only way to properly evaluate the current situation in the Madaket area would be a property-by-property survey from town records, supplemented by on-site examination where necessary. To base a recommendation for a massive investment in an extremely controversial sewerage treatment plant on anything less would be questionable judgment.

If, upon proper investigation, a real problem is found to exist, then certainly a solution would be necessary. One solution might be a combination of maintaining existing, complying septic systems with the installation of Innovative/Alternative (I/A) systems on those specific properties that would otherwise be problematic. Here, too, I find the analysis presented in the Report to be deficient.

- E. The Report states on page 2-128 that a one-third acre lot is the absolute minimum lot size for which an I/A system would be feasible, but no calculation is given. I believe that statement to be incorrect. According to the text, the statement is based on the same type of calculations used in Section 1, in which case my comments A. and B. above apply.
- F. The Report further argues against I/A systems as an alternative through a seriously-flawed cost analysis. First, the I/A systems are designed (pp4-11,12) and costed based on two examples of seriously problematic properties, then the total cost is calculated by taking the cost of such a single example and assuming that every

home in the Madaket area would require such a system (Table 4-5, page 4-17). It is absurd to assume that no homes in the Madaket area could pass a Title 5 inspection or could not install a fully compliant system by conventional means. The true number could not be determined accurately without a site-by-site investigation, but my estimate of the number of I/A systems required would be something closer to 50, certainly no more than 100, absolutely not 549.

Finally, I feel that in Section 4, and further in Section 6, the Report misstates certain facts, and ignores others in promoting the consultant's chosen alternative, that of a low-pressure system constructed on the FAA site.

- G. On page 4-4 the Report states "Building a communal system on the FAA site would have a positive impact to the Madaket ... area. The parcel has the potential for high density development with the current zoning and land use." This is certainly an erroneous and misleading statement, as the property is zoned for minimum 2-acre lots, almost as good as it gets anywhere on Nantucket. Furthermore, the property is currently held by the U.S. Government, and is likely to be deeded eventually to the Town of Nantucket, thus making it improbable that it will ever be commercially developed.
- H. One significant fact which is not stated is that maintaining the current use of on-site septic systems in the Madaket area could lead to the construction of no more than a very limited number of new dwellings in the area, due to Title 5 restrictions. Installation of a communal sewerage system, under present zoning, would remove the environmental restrictions which currently limit development, leading to the possible construction of some 400 additional dwellings in the area, nearly all of those on very small lots which are presently unbuildable. This additional development could only be prevented through as-built re-zoning, which would require the granting of Massachusetts legislative and gubernatorial permission, as well as a positive vote by Nantucket Town Meeting. None of this is assured, and none of it is addressed in the Report other than a very low-key one-line statement on page 6-6.

In conclusion, I urge the MEPA to reject the conclusions of this Report as they relate to the Madaket area, and to request the Town of Nantucket to conduct a proper property-by-property evaluation in that area prior to submitting a final recommendation and Environmental Impact Report.

Sincerely,

Robert A. Rudin

Dr. Robert A. Rudin

Lars O. Soderberg, P.E.
9 Tennessee Avenue
Nantucket, MA 02554

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29 October, 2003

Ellen Roy Herzfelder
Executive Office of Environmental Affairs
Attention: MEPA Office
251 Causeway Street, Suite 900
Boston, MA 02114
EOEA No. 12617

RECEIVED

NOV 3 2003

MEPA

Subject: EOEA No 12617, Comprehensive
Management Wastewater Plan, Nantucket, MA

Dear Sirs:

I have reviewed the above mentioned plan in some detail and have the following comments and suggestions. I come to this review having worked in this technical field and from living and watching the development in Madaket since the late 1940's. My comments are confined to Madaket as that is the only area with which I am intimately familiar.

- ❖ The word failure and imminent failure appear frequently and are very heavy contributors in the rating criteria in table 1-2 leading to the recommendation of low pressure sewers. I cannot find a definition of failure in the report, but to me a failed septic tank is pouring out untreated waste and this has not been the case in Madaket. As the authors developed this failure rate from town records I surmise it means that there was a Title 5 upgrade because of a sale and no physical failure at all.
- ❖ Under lot size, on page 1-5, the authors state the assumption that all lots of 1/2 acre or less require a title 5 variance and this is not the case. The assumption of 4 bedrooms as typical is unrealistically harsh on these small lots.

- ❖ Systems built before 1978 are all assumed to be candidates for imminent failure, but are actually candidates for title 5 upgrades.

Table 1-28 sizes the flows to the new plant and brings up the issue of secondary dwellings. Fishers Landing(Warrens Landing in report) and Tristram's Long Pond have covenants against secondary dwellings and the existing water and sewer regulations prevent secondary dwellings on the small lots (by restricting the number of bedrooms). The design flows may be overstated by some 50 percent.

The purpose of implementing these recommendations is not clearly defined.

1. The implied reason throughout this report is to preserve the single source aquifer on which Madaket depends.
2. A major reason would be to reduce the nitrogen and coliform levels in Madaket Harbor and estuaries.
3. A third reason, and a result of building a large plant in Madaket, would be to maximize the developable lots and allowable secondary dwellings in Madaket.

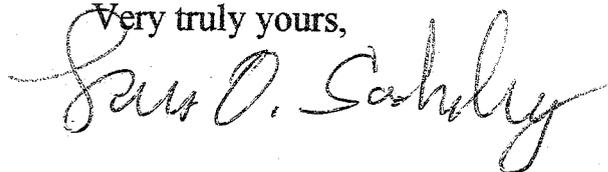
Number 1 is an important goal, but the report presents no evidence that the aquifer is being degraded. There has not been any evidence that this is happening in all the years I have been watching this problem.

The nitrogen levels have certainly increased over the years and undoubtedly the septic tanks contribute to this. Whether or not this is pollution and what portion comes from septic systems has not been determined.

If number 3 is the reason , there are many of us in Madaket who will oppose this any way we can.

In summary this report does not show that a low pressure sewage treatment plant should be built in Madaket. More study is required. Enforcing Title 5, and treating special cases which cannot conform to Title 5, will be much more cost effective.

Very truly yours,



Sylvie O'Donnell

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259 Madaket Road
Nantucket, MA 02554

Phone 508-228-4228

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NOV 3 2003

October 31, 2003

Ellen Roy Herzfelder
Executive Office of Environmental Affairs
251 Causeway St. Suite 900
Boston, MA 02114

MEPA

Re: Comprehensive Wastewater Management Plan/ DEIR prepared by Earth Tech, Inc. for the Town of Nantucket Department of Public Works EOE No.12617

Dear Secretary Herzfelder,

As a resident of Madaket, I am most aware of and concerned about proposals that would impact that neighborhood. The Nantucket Comprehensive Community Plan designates Madaket as "country" not slated for development. Locating a waste water treatment facility there is an unnecessary intrusion and expense. We are presently well protected by local Board of Health regulations regarding wells and septic systems stricter than those required by the state.

For Earth Tech to aver that locating a WWTF on the FAA property has no constraints is a stretch. That site is within the Madaket Harbor Protection District. It is largely undisturbed heathland providing open space, habitat for the Northern Harrier, passive recreation such as walking and jogging, and unobstructed views of conservation land.

The proposed disposal site is approximately 1,000 feet from Long Pond toward which 24% of the effluent impacted will discharge. (4.0 and Fig. 4-2) No evidence is provided in the report for the statement "Approximately 200 homeslie within the immediate area contributing groundwater to Long Pond." (6.0 P1), which contention is used for the conclusion that turns a negative to a positive, a constraint to an opportunity.

Some other errors I have noticed in the report include

1. There is no public water supply at Madaket Beach. (Fig. 2-2) Our bathhouse succumbed to erosion several years ago.
2. The Estuaries Project is in its second year of study of Madaket Harbor, not "currently not even on a list and could not be promised it would be in the near future." as reported on P.1-4 and again on 1-7.
3. Warrens Landing Study Area (Fishers Landing) has municipal water, not private wells (P. 6-3). The lots are small, but it is a cluster development with the equivalent of 2 acre zoning.
4. The FAA site "has the potential for high density development with the current zoning and land use." (P4-4) In fact, the site is in an area zoned 2 acre.

My hope is that Earth Tech will reconsider some of its assumptions before pressing on with the proposal to locate a WWTF in Madaket.

Yours truly,



Sylvie O'Donnell

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November 1, 2003

Ms. Ellen Roy Herzfelder
Executive Office of Environmental Affairs
Attention - MEPA Office
251 Causeway Street, Suite 900
Boston, MA 02114
EOEA No. 12617

Subject: EOEA No.12617, Comprehensive Waste
Water Management Plan and Draft Environmental
Impact Report, Nantucket, MA.

Dear Sirs;

As a year round resident of the Madaket area, I am writing you to express my concern about the possibility of a Waste Water Treatment plant for the west end of the Island.

It seems that this whole process has taken on a life of its own without really *hearing* the Madaket resident's comments and concerns. During the past two meetings I have attended the questions that arise are only partially answered by the "consultants" and in a way to just further qualify the need for a low-pressure sewerage system instead of bringing forth that there *are other options*. When public comment suggests further research they are dismissed.

I cannot believe that the present situation has been thoroughly analyzed for such a huge expenditure to the residents, nor alternative options or methods researched.

The wonderful part of all of this is that Madaket and its surrounding neighbors...Sheep Pond and Smith Point residents, are in such a controlled location that it would be very easy to thoroughly examine each property's septic system to see if there really is a need for improvement.

The "consultants" kept mentioning that a certain percentage of septic systems had "failure". This was not because they did truly have physical failure, rather that they didn't comply with the revised Title V regulations. When properties transfer ownership they must have corrective measures done to comply with these regulations, thus meaning that Title V is working.

I also found that many of their general data was based on figures that were more Island wide, versus what Madaket truly is. They mentioned second dwellings as criteria. In Madaket, there really isn't any ability for a homeowner to add a second dwelling due to the already in place Title V regulation, which limits bedrooms and well-septic separation, added to the area's zoning ground cover restrictions that is already in place.

These are just a few points that I find unsettling with regards to making such a huge environmentally sensitive decision. I know there are many others. I would suggest that the letter from Dr. Robert A. Rudin, submitted to your office on October 27, 2003, be re-read by your staff as it is excellent.

IF this sewage treatment plant is truly deemed necessary, ~~I would~~ encourage the "consultants" to look into further options for the location of this plant. Other options may have less environmental complications than the land in Sheep's Pond. Perhaps the land surrounding the Nantucket Landfill should be considered for the site of the sewage plant for many logical reasons. There are a number of parcels that are owned by the Nantucket Conservation Foundation abutting the Landfill and across Madaket Road there is land owned by the Nantucket Land Bank. It is my suggestion that these organizations be approached to see if a swap could be negotiated between the 100-acre parcel in Sheep's Pond for a limited smaller parcel for the sewage treatment plant along Madaket Road. Substantial arguments could be made that the trucks would be closer to the Landfill and the main road for transporting purposes, the fact that the Sheep's Pond area roads would not need improvement and the Massasoit Bridge could remain small and scenic. I do realize that the Land Bank cannot "dispose" of given land, but they could perhaps "swap" given a two-thirds vote of the Legislature. I am not sure about the Conservation Foundation, but it is my belief that if this were presented in a positive light that this would get approval. To trade out 10 acres or so for 100 acres is logical and makes sense to the environment, the area neighborhoods and the overall thought of keeping commercial development in a condensed area. And since we have been told that this whole program for the treatment plant is 4-5 years to the future, we have time to approach a given organization and negotiate something that would be beneficial to all.

In conclusion, I find that there indeed needs to be quite a bit more information researched instead of going upon "assumptions". The only way to properly know if Madaket and its surrounding neighbors are in need of a sewage plant is to do a property-by-property survey either through Town records or through on-site review. To do other than this seems to be irresponsible to the Town and its citizens.

Sincerely,



Debbi Deeley Culbertson
55 Tennessee Ave.



Paul J. Diodati
Director

Commonwealth of Massachusetts

Division of Marine Fisheries

251 Causeway Street • Suite 400

Boston, Massachusetts 02114

(617) 626-1520

fax (617) 626-1509



November 3, 2003

Ellen Roy Herzfelder, Secretary
Executive Office of Environmental Affairs
Attention MEPA Office
Nicholas Zavolas, EOE # 12617
252 Causeway Street, Suite 900
Boston, MA 02114

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NOV 5 2003

MEPA

Re: Comprehensive Wastewater Management Plan and Draft Environmental Impact Report Phase II - Alternatives And Site Identification, Nantucket Massachusetts. September 2003.

Dear Secretary Roy Herzfelder:

The Division of Marine Fisheries (*Marine Fisheries*) reviewed the above reference report associated with the planning phase of a proposed wastewater treatment facility for the Town of Nantucket. *Marine Fisheries* believes the proposed construction activities will not adversely impact marine fishery resources around Nantucket Island.

Eliminating the discharge of sewerage to marine waters of Nantucket will improve water quality and protect harvestable shellfish resources. With the exception of three nearshore embayments of limited area, western Nantucket Harbor, Polpis Harbor, and Madaket Harbor, all other marine waters are classified SA per water quality regulation 314 CMR 4.06. *Marine Fisheries* recommends that future phases of the project including the treatment and discharge of wastewater not result in any degradation below this standard.

Marine Fisheries appreciates the opportunity to comment. If you have any questions or require additional information please contact Dr. Jack Schwartz at our Gloucester field station (978.282.0308x122).

Sincerely,

Paul J. Diodati
Director

Cc: — Neil Churchill, MDMF
Mike Hickey, MDMF
Jack Schwartz, MDMF
Paul Hogan, MDEP
Todd Callaghan, MCZM

NZ

Town and County of Nantucket
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Nantucket, Massachusetts 02554

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C. Elizabeth Gibson
Town & County Administrator

October 27, 2003

Ellen Roy-Herzfelder, Secretary
Executive Office of Environmental Affairs
Attn: MEPA Office, 9th Floor
251 Causeway Street, Suite 900
Boston, MA 02110-2119

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MEPA

RE: Nantucket, MA Comprehensive Wastewater Management Plan/Environmental
Impact Report (CWMP/EIR)
EOEA No. 12617

Dear Secretary Roy-Herzfelder:

On behalf of the Board of Health, I am pleased to submit these comments relative to the above-referenced on-going CWMP/DEIR Phase II Document. The Board of Health supports the findings of the Phase II CWMP/EIR and we will continue to work together with other Town agencies having jurisdiction in order to finalize the study.

In 1998, the Nantucket Department of Public Works retained Earth Tech, Inc. to prepare an Island-wide Comprehensive Wastewater Management Plan/Environmental Impact Report (CWMP/EIR) to identify areas with sub-surface wastewater disposal problems and to develop a plan to mitigate or eliminate the problems. The Town in conjunction with MEPA established a special procedure for the review of this

major and complicated project. This special procedure is a three-phase process during which the scope of future phases is based largely on the results of the preceding phase.

The process consists of filing three documents: (1) Phase I, Needs Analysis and Screening of Alternatives; (2) Phase II, Draft Comprehensive Wastewater Plan and Environment Impact Report; and (3) Phase III, Final Comprehensive Wastewater Management Plan and Environmental Impact Report. These documents provide the basis for the design and ultimate construction of the approved plan.

The Phase I-Needs Analysis, and the Phase II-Alternatives and Site Identification are both the result of extensive efforts by the Town and our consultant, Earth Tech, Inc. Working in conjunction with this Board as well as the Board of Selectmen, Department of Public Works, Assessor, Planning and Economic Development Commission, Conservation Commissions, Division of Marine Fisheries, the state Estuary Program and various local committees and neighborhood groups, Earth Tech, Inc. has identified areas of "Need" on Island as well as a draft recommended solution for those "Needs". In addition, Earth Tech, Inc. has worked closely with this and other Town boards in order to develop a Septage Management Plan (SMP) for those areas on Island long-term sustainable with on-site wastewater disposal systems. The intent of this SMP is to operate in conjunction with the Town's municipal wastewater collection systems in the proper collection and disposal of septage on Nantucket.

The ultimate goal of both the CWMP/EIR and the SMP is to protect and maintain public health, ensure protection of surface and groundwater quality; provide sustainability of the Island's single-source aquifer; maintain water resources as recreational; aesthetic and economic assets; improve the environment and prevent its deterioration; preserve and retain local control of on-site wastewater disposal systems without regulatory intervention; and protect private investments with regards to residential property values that is not only accepted locally but in accordance with all regulatory requirements.

This Board looks forward to MEPA's favorable review and approval of the Phase II Report and continuing work with the Department of Public Works and Earth Tech, Inc. to complete the above-mentioned studies in order to guarantee the long-term sustainability of Nantucket and to bring the goals set forth above to fruition.

BOARD OF SELECTMEN

TOWN OF NANTUCKET

The Board of Health appreciates this opportunity to comment on this most important, environmental project.

Sincerely,

A handwritten signature in black ink, appearing to read "Finn Murphy". The signature is fluid and cursive, with a large loop at the end.

Finn Murphy
Chairman, Board of Health

cc: Board of Selectmen/Health
Jeff Willett, DPW Director
Richard Ray, Health Officer
Earth Tech, Inc.



Nantucket Land Council, Inc.

Six Ash Lane
Post Office Box 502
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nlc@nantucket.net

www.nantucketlandcouncil.org

NZ

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November 5, 2003

Ellen Roy Herzfelder, Secretary
Executive Office of Environmental Affairs
Attn: MEPA Office
EOEA No. 12617, Nicholas Zavolas
251 Causeway Street, Suite 900
Boston MA 02114

Dear Ms. Herzfelder:

The Nantucket Land Council, Inc. is a non-profit, environmental organization, which is supported by more than 1700 members. We have retained Horsley & Witten Inc. to review the Comprehensive Wastewater Management Plan and Draft Environmental Impact Report Phase II Alternatives and Site Identification Submitted by Earth Tech Inc., on the behalf on the Town of Nantucket. We have attached Horsley & Witten's comments. We would also like to take the opportunity to make the following additional comments.

The Nantucket Land Council appreciates the importance of the Comprehensive Wastewater Management Plan (CWMP). The Nantucket community depends on its sole source aquifer for clean drinking water. The Island's fresh and salt water environments provide excellent recreational, economic, and wildlife benefits. However, associated impacts from a growing population have put the aquifer as well as Nantucket's fresh and salt water resources at risk. We agree these problems must be addressed and solutions be implemented, however, the plan must be economically realistic while incorporating the principles discussed in Nantucket's Comprehensive Community Plan.

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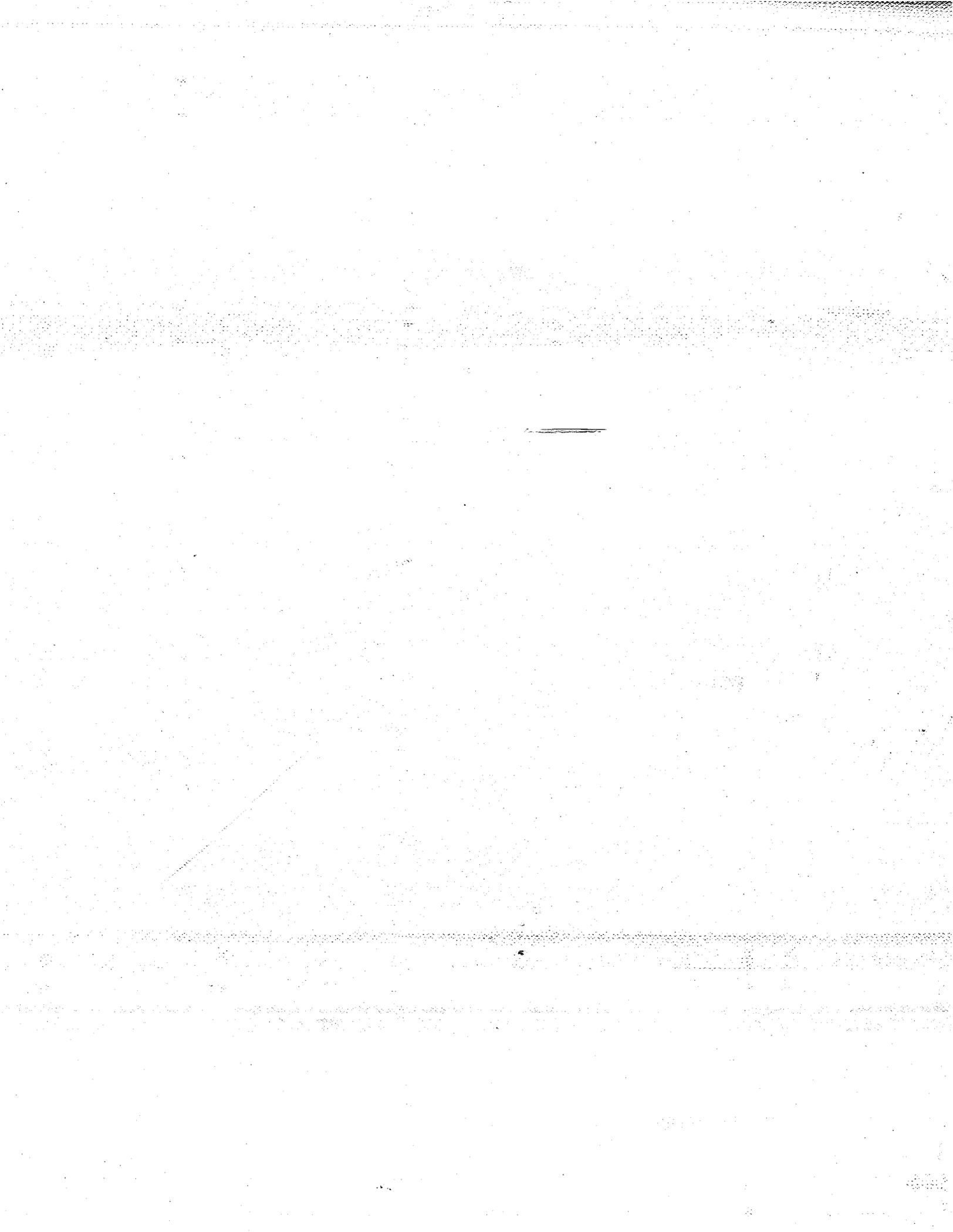
1) Coordination with Massachusetts Estuaries Project and Prioritization of Objectives

The CWMP states that the wastewater management recommendations for the areas of Polpis, Pocomo, Wauwinet, and Quidnet will be determined when the Massachusetts Estuaries Project (MEP) has completed its investigations of these areas. However, the CWMP states, management of these areas will most likely be addressed in the proposed Septage Management Plan. The CWMP is assuming that strategies put forward in a future Septage Management Plan will be sufficient to not exceed the Total Maximum Daily Loads (TMDL) calculated by MEP. However, if the Septage Management Plan does not meet the expectations of the MEP, additional planning, construction, and mitigation costs are going to be associated with the CWMP. Polpis Harbor, Head of the Harbor, and Sessachacha pond are perhaps the most stressed marine ecosystems in Nantucket. The CWMP should prioritize the needs areas affecting these water bodies to ensure that future decisions are not constrained because the town no longer wishes to allocate future funds.

The MEP is also investigating the Madaket Harbor/Long Pond watershed. The data gathered by MEP will be extremely valuable to determine appropriate wastewater management technologies. The proposed wastewater treatment facility in the CWMP will be effective at removing pollutants currently entering Long Pond and/or Madaket Harbor. However, the additional information provided by MEP may challenge the need for such an extreme proposal. A lot-by-lot analysis of hydrogeological conditions would assist in determining the feasibility of alternatives for each lot and may or may not justify the wastewater treatment facility proposal. The planning process for the Madaket wastewater treatment facility should be postponed until the MEP report is completed.

2) Section 1.0 Needs Analysis Update

Phase I of the CWMP determined that Cisco and Miacomet were not "needs areas". Phase II of the CWMP states that a further review of localized septic system failure rates on file with the Board of Health helped with their needs analysis. Water testing in Hummock Pond and Miacomet Pond show increased nutrient counts in the past twenty years. Conventional Title V systems do not prevent a large portion of nitrates and phosphorous from entering the groundwater and eventually into the Ponds. The CWMP states that the two areas will be included in the proposed Septage Management Plan, and recommends the continued use of on-site systems. The NLC urges that Innovative/Alternative technologies be used in these areas to reduce unnecessary pollutants from entering the groundwater and adjacent Ponds.



**3) Section 3.0 Screening of Sites For Treatment and/or Disposal
Section 6.0 Draft Environmental Impact Report**

Results from the screening analysis used for the Madaket FAA site states that there is no "sensitive habitat" either in the site or in nearby surrounding areas. This statement we think is in error because the site does fall within mapped areas of Estimated Habitats of Wildlife, and Priority Sites of Rare Species Habitats and Exemplary Natural Communities. Plant communities represented at the site include sandplain grassland / heath and scrub oak/shrub. Rare plants documented on the site include sandplain blue eyed grass (*Sisyrinchium arenicola*), Nantucket shadbush (*Amelanchier nantucketensis*), New England blazing star (*Liatris borealis*), and bushy rockrose (*Heliathemum dumosum*). The area is ideal habitat for the state listed northern harrier (*Circus cyaneus*) and the short eared owl (*Assio flammeus*), as well as numerous rare moth species. If the screening analysis listed the area as containing "sensitive habitat" the decision to designate the area as a "high potential alternative" may not have been justified. If the area is indeed a "high potential alternative" the final Environmental Impact Report should include documentation of all state listed plants and animals on the property and a stewardship plan that discusses any impacts and mitigation strategies. The town should also place a conservation restriction on the remaining open space at the site.

4) Section 5.0 Recommended Plan

The CWMP does not adequately address future growth implications as a result of the proposed Madaket treatment facility. There is a lack of certainty that the town will have the ability to prevent lots currently undevelopable, according to Title V standards, from hooking into a future sewer system. The CWMP needs to analyze the maximum buildout for the area that would include these undevelopable lots. On page 5-42 the CWMP notes that the proposed communal system at the FAA site will not cause a long-term negative change in development and land use patterns because the potential for development at the site will be eliminated. However, associated off-site changes are not addressed. What are the associated costs to the municipal budget if undevelopable lots are to become developable? Is the stormwater infrastructure for the Madaket watershed adequate to incorporate a larger amount of impervious surface? Will nutrient loading increase with an increase in impervious surfaces? How will an increase in wells affect groundwater levels? There needs to be a coherent legal, planning, and environmental analysis on the growth implications of such a proposed system.

Nantucket Land Council Inc.
Secretary Ellen Roy Herzfelder
November 5, 2003
Page 4

5) Appendix D Coastal Erosion Reports for 1999 and 2002

Both reports indicate that the most accurate method for determining future erosion trends is to use erosion rates from 1955 to the present. The reports state that including shoreline position data from 1846 to 1955, would reveal significantly different trends in long term rates of change than those represented in the more recent data. It would be extremely prudent to assume that worst-case erosion scenarios are a distinct possibility for the area. A full analysis of future erosion trends including the 1846-1955 data should be presented. The report also states, "However, short-term fluctuations in shoreline positions, that may pose a threat to the SWTF, should not be discredited. Although these short-term fluctuations may not be apparent when analyzing the linear regression rates, such as the previously mentioned bulge in shoreline, a shift in the offshore shoal system could result in dramatic repositioning of the bulge and a concomitant change in shoreline erosion/accretion." Thus, the variables involved are too unpredictable to ensure that the erosion/accretion scenario presented using even just the 1955-2002 data will occur. What will be the contingency plan if erosion occurs to a level that will impact the sewer beds and eventually the facility itself?

Thank you for the opportunity to provide these comments.

Sincerely,



Cormac Collier
Ecologist

NZ

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MEPA

November 5, 2003

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Ms. Ellen Røy Herzfelder, Secretary
Executive Office of Environmental Affairs
Attn: MEPA Office
EOEA No. 12617 [Mr. Nicholas Zavolis]
251 Causeway Street, Suite 900
Boston, MA 02114

Re: Nantucket Comprehensive Wastewater Plan and
Draft Environmental Impact Report –EOEA No. 12617

Dear Secretary Herzfelder:

Nantucket Sustainable Development Corporation (“NSDC”) appreciates the opportunity to provide the following brief comments on the Nantucket Comprehensive Wastewater Plan and Draft Environmental Impact Report Phase II (“CWMP” or “Report”) dated September, 2003.

NSDC is a broad based non-profit organization whose membership consists of seasonal and year round Nantucket residents. Our mission seeks to ensure Nantucket’s economic vitality while preserving and restoring community character. Our programs focus on a range of issues from the socio-economic and environmental impacts of various infrastructure growth (transportation, public works, housing etc) to the health and sustainability of our local shellfishery. Members of our Board of Directors also serve as local Planning Commissioners and Selectmen.

At the outset we wish to wholeheartedly endorse and support comments that you have received from the Nantucket Land Council and the Nantucket Community Association, two organizations that NSDC often collaborates with on comments relating to other MEPA projects and certificates. We want to go on record as in full agreement with all the observations made about groundwater recharge in the Nantucket Land Council’s comments and with the need for expanded and more explicit cost analysis referenced in the Nantucket Community Association comments. Wherever additional analysis is urged or required, we concur.

Christine S. Silverstein
Executive Director

Following are issues that are of particular concern to NSDC:

- 1) **Groundwater Balance and Sustainability.** The water balance analysis in the Report should be expanded. NSDC has highlighted the importance of groundwater recharge in its recent Indicators Report and believes that unintended consequences of any mitigation of wastewater management on the delicate balance of the community's groundwater could be disastrous. In particular any decrease in recharge cannot be tolerated by a community that has no alternative to its sole source aquifer.
- 2) **Compliance with Nantucket's Comprehensive Community Plan.** Unfortunately references in the Report to the Comprehensive Plan and to Executive Order 385 are cursory. The EIR should include discussions and mapping of the Town and Country Overlay Districts and the specific recommendations about sewer and water infrastructure outlined for both districts. In addition, assumptions about development in calculating wastewater flow are incomplete. We urge you to require an independent growth analysis by a third party.
- 3) **Overwhelming Costs and Unidentified Costs.** If residents of Nantucket will be expected to fund the project as recommended it will require at least a twelve million-dollar override annually for the next fifteen years. This does not take into account the obvious omission in the Report of land costs, maintenance costs, future studies and unforeseen mitigation costs. The Report should be revised to comprehensively articulate these costs. More importantly the Report should include a comprehensive analysis of lower cost options and alternatives.
- 4) **The Shellfishery.** NSDC has a vested interest in the viability of Nantucket's endangered shellfishery. The Massachusetts Estuary project (MEP), referenced in the Report, should be heavily weighted in any analysis of our wastewater disposal needs and in any recommendations for site selection and disposal options. It is crucial that the EIR not be finalized until data from this completed project is made available and incorporated in the Report's analysis. We believe that the Report's environmental screening for the fisheries (including shellfish areas) is inadequate and thus poses serious consequences to the future of the fishery.

We wish to thank the Secretary for this opportunity to review the CWMP documents and strongly urge you to require that the Report fully address all the issues raised by all the commenters regarding this extraordinarily complicated planning document. The socio-economic and environmental future of an entire community and its population are at stake.

Respectfully submitted,



Christine B. Silverstein
Executive Director

WANNACOMET WATER COMPANY



Nantucket Water Commission

Nelson K. Eldridge
Noreen Slavitz
David D. Worth

November 6, 2003

1 Milestone Road
Nantucket, MA 02554Telephone (508) 228-0022
Facsimile (508) 325-5344
www.wannacomet.orgRobert L. Gardner
General Manager

By Telefax

Ellen Roy Herzfelder, Secretary
Executive Office of Environmental Affairs
Attention: MEPA Office
251 Causeway Street, Suite 900
Boston, MA 02114

ATTN: Nicholas Zavolas, MEPA Reviewer

RE: Nantucket, MA CWMP/DEIR, EOE A No. 12617

Dear Secretary Herzfelder,

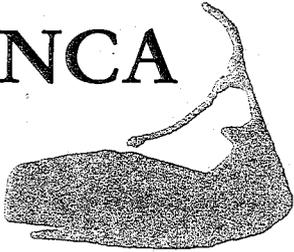
The Wannacomet Water Company, an enterprise fund of the Town of Nantucket administered by the Nantucket Water Commission, appreciates the opportunity to comment on the above-referenced document. The Town and its consultant have worked cooperatively with this office with areas of the Report, including water conservation, water balance analysis and supply issues.

The Phase II Report screened potential wastewater treatment and disposal options available to the Town with regards to a host of environmental issues and other potential impacts. One such area of potential concern is the Wannacomet Water Company's supply location and operation. Through careful review of the Phase II, we find that no potential impact(s) to the Company's operation nor the Island's water supply through the sole source aquifer exist with the draft, recommended plan.

The Wannacomet Water Company supports the findings and draft recommendations outlined in the Phase II and we look forward to continuing the working relationship with the CWMP/EIR process with these two vital Island issues- water and wastewater.

Sincerely,
WANNACOMET WATER COMPANYRobert L. Gardner
General Managercc: Board of Selectmen
Department of Public Works
Earth Tech, Inc.

NCA



Nantucket Community Association

*"Fostering awareness and involvement in protecting
Sustaining the quality of life on the Island"*

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VIA FEDERAL EXPRESS

917 N. Rodney Street
Wilmington DE 19806

November 5, 2003

Ms. Ellen Roy Herzfelder, Secretary
Executive Office of Environmental Affairs
Attn: MEPA Office
EOEA No. 12617 [Mr. Nicholas Zavolis]
251 Causeway Street, Suite 900
Boston MA 02114

Re: Nantucket Comprehensive Wastewater Plan and
Draft Environmental Impact Report --EOEA No. 12617

Dear Secretary Herzfelder:

The Nantucket Community Association ("NCA or "the Association") is providing the following comments on the Nantucket Comprehensive Wastewater Plan and Draft Environmental Impact Report Phase II ("CWMP" or "Report") dated September, 2003, publication of which was noticed in the *Environmental Monitor* on October 6, 2003.

NCA is a non-profit organization whose members reside on Nantucket either on a year round or seasonal basis. NCA members have a substantial interest in the issues addressed in the CWMP. As reported in Appendix A to Vol. II of the Report, the Association and other organizations filed earlier comments on Phase I.

The procedural background leading to the publication of the CWMP, including the Secretary's November 16, 2001 certificate establishing a special review procedure is described in the accompanying Executive Summary. (CWMP, App. A).

It needs no keen observer of the environment on Nantucket to recognize that the quality of life on the Island is being palpably threatened on several fronts. Repeated shell fishing closures in Nantucket, Polpis and Madaket Harbors among other issues, portend a more serious and ominous future. The Report correctly notes, for example, "[S]ubstandard on-site wastewater combined with soils with severe limitations for subsurface sewage disposal and high groundwater levels are a potential health hazard" . . . and their operation "is a real threat to the sole source aquifer." It also points out that "Nantucket will potentially lose a very important recreational resource. Declining water quality of Miacomet Pond, Hither Creek, Long Pond, Nantucket Harbor, Madaket Harbor, and Polpis Harbor may reach such unacceptable levels that swimming could be prohibited." (CWMP, pp. 2-2 to 2-3). These and other long neglected matters relating to Island's deteriorating environment now call for compelling action. The CWMP sponsored by the Town points to broad ranging solutions to meet this critical need. While with some reservations NCA endorses certain aspects of CWMP such as the implementation of a Septage Management Plan (and on an early schedule) and the repair/upgrade of the Surfside wastewater facility, our major concerns regarding the CWMP relate to its enormous capital and operating costs, as compared to the number of existing and planned additional customers that would use these facilities. The costs associated with the CWMP appear to be financially unfeasible on their face, and the document does not, in our opinion, adequately address the CWMP's cost, feasibility and resulting socioeconomic impacts on the Island. While some the proposed investment is needed to correct existing problems and is largely unavoidable, we believe that the CWMP as a whole will place severe cost burdens on users and thereby encourage increased growth and development pressure in order to spread capital and operating cost over a larger customer base. We further believe the CWMP does not adequately analyze lower-cost options and submit that such an analysis should be performed in substantially greater detail before a final decision is reached.

Comments

- 1) The two major cost components discussed in the CWMP consist of a) \$92.1 million wastewater treatment facilities plan ("WWTF") to upgrade and expand the Surfside facility, construct a wastewater treatment facility at Madaket and address certain "needs areas" which have failing septic systems and/or conditions requiring special attention due to soils, groundwater, etc., and b) \$83.3 million for mapping, repair and upgrading of the existing stormwater and wastewater infrastructure ("Executive Summary," p. ES-4, "Recommended Plan", pp. 5-42 to 5-5-43). The total capital cost for these components is estimated to be \$175.4 million in 2003 dollars and to be completed over a 12 to 20 year period with the bulk of construction occurring between 2007 and 2012. The \$174 million capital

cost estimate fails to include the following elements: a) future debt service costs for investments that have already been authorized, including the Siasconset Wastewater Treatment Facility, the Septage Management Plan and collection system improvements within the downtown area; b) any land costs associated with siting new wastewater treatment facilities or acquiring new sewer rights of way; c) construction cost inflation over the phases of the project and d) interest costs on bonds. In addition to the \$174 capital cost, operation and maintenance costs are expected to exceed \$2.7 million per year, excluding debt service. These costs are to be spread over a small existing customer base of approximately 4,700 households and businesses, with the potential of addition of roughly 800 to 900 new customers in proposed new service areas. The CWMP also notes that certain "needs" areas (Wauwinet, Quidnet, Pocomo and Polpis) are included as nitrogen study areas in the Massachusetts Estuary Project (MEP) and that future recommendations on these areas would await the outcome of the MEP review. (CWMP, pp. 5-8 to 5-9). Depending on those studies ensuing recommendations could add several million dollars to the project costs. NCA's estimates of the costs of items noted in (a) through (d) above indicates that the total CWMP capital costs (not present valued) over the term of the bonds will conservatively range from \$325 million to \$375 million assuming only a 3% rate of inflation and attractive bond financing within a range of 2.5% to 5.5%. Under less optimistic circumstances the total capital costs could approach \$500 million. In this respect the CWMP consistently appears to avoid quantifying the total capital, operating and debt service costs associated with its recommendations. By understating the costs of these recommendations, we believe that the CWMP unfairly dismisses potentially less-costly alternatives and understates the plan's socioeconomic impacts on the Island.

- 2) A substantial portion of the \$174 million CWMP capital cost is intended to serve five "needs" areas (Madaket, Warren's Landing, Somerset, Shimmo and Monomoy) based on such factors as septic system failures, poor soils and proximity to groundwater and environmentally sensitive areas. The five "needs" areas contain 818 existing developed residential lots and 596 undeveloped lots (there does not appear to be any discussion in the CWMP as to how many of these undeveloped lots are assumed to be added to the wastewater system in the future). Based on the 818 existing developed lots, the proposed average capital cost allocated to addressing needs areas could potentially exceed \$110,000 per lot. With O&M and debt service, the total

cost over the first ten years alone could range from \$73,000 to \$88,000 or \$7,300 to \$8,800 annually per household. The Association believes that the CWMP should more clearly identify the portion of total capital cost that is specifically attributed to servicing these needs areas. Because these costs are not adequately quantified, the CWMP fails to provide a clear explanation as to why Innovative/Alternative systems would not be cost effective. We strongly recommend that the alternatives analysis be redone based on more complete and accurate cost projections.

- 3) At pages 1-27 to 1-28, the CWMP provides one of the few if not only discussions of underlying growth assumptions. "The wastewater flow estimates assume that it is possible to build second dwellings on two thirds of the current developed and undeveloped lots." That assumption is then used to provide an estimate of wastewater flow by study area in Table 1-4; however, no basis is provided to support either the assumption that all undeveloped lots will be built on or that two thirds of the current developed and undeveloped lots will have secondary dwelling built on them. The CWMP should explicitly provide projections of current and future residential development that are used to develop design flows. The Report should also estimate the sources of that demand growth, including future development of vacant lots within sewerred areas, second dwelling units and future expansion to abutting and nearby parcels. The Association also believes that the CWMP inadequately addresses the potential secondary growth impacts of the recommended plan. At a minimum, the CWMP should (1) make "customer growth" assumptions explicit; (2) discuss the financial implications of increasing customer base to the project's financial feasibility; and (3) recognize and address the resulting socioeconomic impacts of these forecasts to the Island. Similar concerns respecting the methodology for estimating growth assumptions are inherent in estimates of growth for Siasconset (p.2-93), the projections of water consumption on Nantucket for 2025 (Tables 2-24 to 2-28) and future projections of sewer flows and loadings for the Surfside and Madaket facilities (Tables 5-3 to 5-5). (See also, the discussion of "Water Supply" and the projections of water use in Somerset, Shimmo, and and Monomoy at pp. 6-2 to 6-5.)
- 4) Pages 4-15 to 4-28 provide data (Tables 4-4 to Table 4-9 in particular) on estimated project costs, operation and maintenance costs and present worth costs for the Study Areas which lead to a recommendation based on cost that "the best alternative for wastewater disposal problems in each of the Study Areas is the installation of a Low Pressure Sewer System and to use

a Sequencing Batch Reactors for the expansion of the Surfside WWTF and new Madaket." The CWMP fails to adequately explain the "present worth" analysis and appears to understate the cost of centralized treatment. The methodology and assumptions used to make these calculations should be explained in detail.

- 5) At pages 4-25 to 4-27 under the heading "Institutional Arrangements," the CWMP states that there is a need to implement institutional and system management procedures to manage and operate the proposed wastewater collection, transmission and treatment facilities. These procedures would include: (i) a review of the rules governing, among others, sewer connections and extensions, wastewater discharges, monitoring, fees and enforcement; (ii) a cost recovery plan to fairly allocate capital costs among system users; (iii) a review of current sewer user charges and (iv) a system expansion control policy. Development of these procedures is critical to understanding the financial feasibility of the projects proposed in the CWMP. As a corollary, secondary growth impacts of the CWMP should be developed and explained as an integral part of the document.
- 6) At page 5-42 the CWMP notes that building a communal waste treatment system on the 100 acre FAA site at Madaket would have a beneficial impact on Madaket and the Warren's Landing areas because the parcel has a potential for high density development which would "cause a long term negative change in development and land use patterns". Since the Madaket wastewater treatment facility would only occupy 10 acres of the FAA site, the conclusion that the entire 100 acres would be removed from development may be unrealistic. The CWMP should discuss the potential use or perpetual preservation of the remaining 90 acres. As noted above, the Report also does not discuss or quantify the potential secondary growth effects of the recommended plan on Madaket and Warren's Landing. This treatment appears to be overly simplistic and understates, as NCA believes appears elsewhere in the CWMP, the probable land use and socioeconomic impacts associated with the recommended plan.
- 7) At page 5-42 under the heading "Socioeconomic Pressure for Expansion" the Report states in one "stark" sentence:

Ms. Ellen Troy Herzfelder, Secretary
November 5, 2003
Page Six

**“12. Socioeconomic Pressures for Expansion
Socioeconomics would not be affected by the [CWMP] plan.”**

The CWMP is devoid of any analysis to explain or support this position. The contrary appears true. For example, cost burdens associated with the recommended plan would almost certainly ~~heighten~~ pressures to increase development as well as density within sewerred areas, in order to reduce high unit costs as well as potentially decreasing the stock of affordable housing. The CWMP appears to simply assume that future Town policies will prevent these impacts from occurring. However, the CWMP's failure to quantify the total financial costs associated with the recommended plan, denies the community the opportunity to understand the full fiscal implications for the Town and prevents the community from determining whether it will be financially feasible to pay for the improvements without aggressive efforts to expand the system's customer base.

- 8) In discussing capital and operation and maintenance costs the CWMP states that an analysis was performed “to determine the annual costs to the Town and the homeowner for both capital cost and debt service.” (Page 5-42). The CWMP further discusses the bonding cost program for the Plan it recommends but it fails to include any dollar estimates in Table 5-7, using instead the term “TBD”. The CWMP as published contains sufficient information to project these costs but for some unexplained reason it has failed to do so. The CWMP should include these numbers because they are critical to both the Town and homeowners' understanding of the full financial ramifications of the recommended plan.
- 9) At page 5-49 the implementation scope plan for the Recommended Plan should include land acquisition costs for new treatment facilities as well as investments in all facilities that have already been authorized (such as the Siasconset wastewater treatment facility) but have outstanding associated bond issues. According to Nantucket's audited June 30, 2002 financial statements, the Town had previously authorized more than \$15.8 million in bonded debt for various sewer projects, representing nearly 48% of the Town's entire authorized but unissued debt at that time. At the same time, the Sewer Department enterprise fund had an additional \$2.5 million outstanding debt for previously issued pollution abatement (sewer) bonds. It appears that most if not all of this previously issued debt is omitted from the \$174 million capital cost associated with recommended plan. Failure to include these already authorized

Ms. Ellen Roy Herzfelder, Secretary
November 5, 2003
Page Seven

debts, as well as a potential \$5.0 to \$10.0 million in land acquisition costs for new wastewater treatment facilities, substantially understates the true socioeconomic, land use and fiscal impacts of the recommended plan on the Nantucket community.

For the foregoing reasons, the Secretary should find that the CWMP fails to meet the necessary requirements of G. L. c. 30, §§ 61 to 62H and 301 CMR 11.00 and direct the Proponent to address the deficiencies described above. Once this is done the Secretary will be in a position to approve the CWMP and with the noted deficiencies resolved the Nantucket Community will be reasonably informed of the alternatives available to confront the urgent and critical environmental issues it now faces.

Sincerely,


Dale G. Stoodley
President

cc: Nantucket Board of Selectmen
J. L. Willet, NDPW
T. E. Parece, Earth Tech
J. Pagini, NP&EDC
L. S. Holland, NLC
R. and D. Anne Atherton, NCL

NZ

52 Tennessee Avenue
Nantucket, MA 02554

RECEIVED

NOV 6 2003

MEPA

Secretary of Environmental Affairs
251 Causeway Street, Suite 900
Boston, MA 02114
Attention: MEPA Unit
MEPA #12617

RE: Comprehensive Wastewater Management Plan and Draft Environmental Impact Report, Phase II – Alternatives and Site Identification

Please be aware that I am **not** addressing the entire report, only that information that relates to Madaket and "Warrens Landing".

My major concern is that Thirty-eight-thousand-three-hundred-sixty million dollars (\$38,360,000.00) is a major expenditure for a new Wastewater Treatment Facility at the FAA property to serve 524 dwellings (with possible expansion to 549 dwellings). This is \$69,872.00 per system. I feel it is not a necessary expenditure for the county of Nantucket. There are less expensive alternatives to address the concern of possible pollution of our sole source aquifer and surrounding surface waters. Incidentally, using the figures for the gravity sewer for Madaket on Page 4-17, plus the "Warrens Landing" gravity sewer on page 2-24 and adding in the estimated cost of the WWT plant for Madaket I get a total of \$48,955,250.00 or \$89,171.00 per system.

Page ES-4 refers to 7 construction phases over a 12 year period based on (1) need to be serviced, (2) funding constraints and (3) minimizing disruptions due to construction.

- I do not agree with the need to be serviced for Madaket and Fishers Landing.
- I do agree that \$38,360,000 (or \$48,955,250.00) is an amount that may not need to be spent.
- I also agree there may be minimal disruptions although each road in Madaket would be dug up to allow the insertion of underground sewer pipes.

Page 2-1 mentions co-ordinating efforts in the Madaket Harbor area with the State Estuary Project to optimize operation and maintenance of on-site systems. This project has not yet published a report stating problems with septage flow into waters from the individual systems. There are repeated references to working with the State Estuary Project which is commendable and makes a lot of sense once they have also completed their research.

The failure rate of 44% since March 31, 1995, refers to non-compliance with Title V **not** actual failure to function but having a higher than acceptable level of sludge in the bottom of the tank. Mounded systems require a variance but are definitely an option for

“failed” existing systems. At a cost which is a whole lot less than \$89,000.00 per system with a Madaket WWMF.

If the study area has severe ground water limitations (seasonally high water table at the surface to 2 feet below grade) why have we not had human coliform bacteria in the waters in these areas?

The soil limitations, old systems, systems, within 100' of surface water, within 100 year flood plain, within aquifer recharge areas and within watershed areas are all probable reasons to correct any problems but the problem has yet to be identified as coming from septic systems.

I mention “possible pollution “as I have yet to find any specific reference to human coliform bacteria being evident in our waters in and surrounding Madaket. Hither Creek and Madaket Harbor may have high fecal coliform bacteria counts at times but these are not caused by homo sapiens – but by either birds or seals. Dare I suggest we kill off some seals? Or cormorants? Maybe the fish population would also increase in the area around Muskegut.

Nitrogen removal of Title V systems at 42 mg/L is stated as being unsatisfactory but I could not find that this has yet been documented in any reports. The needs analysis ratings also become skewed when based on actual failures identified as not being Title V compliant.

Based on incomplete data, note Page ES-1 “Madaket Harbor is also being studied but at a later target date than the above mentioned areas.” and on the same page “A recommended solution will be made for Madaket in this report, which is based on multiple criteria in addition to the MEP” it seems unwise to base a solution on an unidentified source of pollution in the Madaket area. It also says the MEP for Madaket is not yet completed. Let's identify the source before we work at solving it.

The five “needs areas” include two that would be serviced but the new facility, Madaket and “Warrens Landing”. Several inaccuracies for the background data occur in these areas.

- The Warrens Landing boundaries actually are **only** for the sub-division of Fishers Landing. It is served by town water and **not** by individual wells as stated on page 6-3.
- The Madaket area includes 2 major sub-divisions, Long Pond and Tristram's Landing. Tristram's Landing is a cluster development with the #3 deed restriction limiting the lots to “Not more than one dwelling....on any lot”. The Long Pond lots are also limited to one, single family dwelling. The Fishers Landing cluster development also has deed restrictions limiting the lots to “one, single family dwelling”.

Therefore, a conclusion based on a build-out potential of 2nd dwellings on 2/3 of all lots covered in the Madaket and "Warrens Landing" need areas is flawed. As is the conclusion based on all private wells in the "Warrens Landing" need area in the Wastewater Flow calculations

For both Madaket and "Warrens Landing" on Page 1-12 the conventional Title V systems are NOT recommended and on-site innovative alternative systems, local or satellite systems are all viable alternatives. Actually Title V systems are NOT recommended for Somerset, Miacomet, Surfside, Tom Nevers – high density, Siasconset, Quidnet, Wauwinet, Pocomo, Polpis, Town Shimmo, and Monomoy. They are only recommended for Town-WPZ with on-site systems in existence and Tom Nevers – Low Density. Apparently the state regulations for Title V systems are not acceptable (stringent enough) for this report. As all lots are not equal I feel a combination of solutions may be an acceptable solution.

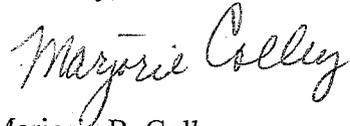
Some comments/observations that I'd like to mention:

- A lot-by-lot analysis of existing septage systems and possible alternatives will cost far less than the difference between the proposed \$40,147,750 Madaket WWT facility and the \$27,450,000 installation of 549 new FAST systems.
- There is no cost given for the use of RetroFAST systems which could work in some, if not most, of the 524 existing systems.
- There is no estimate given for the installation of any I/O system other than the FAST system. For the 3 options offered, the other 2 are gravity or low pressure sewers for a new WWT facility. Although the FAST system is the best for Nitrate removal, present research in Massachusetts indicates there are other suitable systems.
- FAST system installation estimates are for new systems done on a one by one basis and not for a "quantity discount" for a large number installed at the same time.
- As systems fail and need to be replaced the estimated current annual operating and maintenance costs of \$631,350 would be assumed by the homeowner rather than by the Town of Nantucket.
- As systems fail and need to be replaced the estimated installation costs of \$50,000 for a FAST system may be absorbed by the homeowner. Perhaps this question could be included in the Madaket area plan survey to gauge public acceptance of an individual expense versus a Wastewater Treatment facility on Red Barn Road.
- Use of a Madaket Wastewater Treatment facility would result in a negative recharge in the Madaket sub-basin.
- When calculating lots of less than, or equal to, an half acre was the open land of the cluster developments of Fishers Landing and Tristrams Landing taken into consideration?
- Is there a report about the use of alternative systems from the research being done at Otis at the US EPA Environmental Technology Initiative that might be used to suggest systems other than FAST if one is more efficient?

- A Septage Management plan is to be devised for the "rest of the island". I suggest that it be devised for Madaket as well.

I'm sorry that I have wandered a bit in presenting my opinions but I am new to this process and found that I had to review the whole report and then go back and forth to try to corroborate the numbers. I would hope that whatever solution may be found for the "problem" it will not result in allowing additional development. Please be assured that I am completely in accord with maintaining the high quality of ground and surface waters on and around the entire island, and improving same if necessary, but I feel the source of any pollution needs to be identified accurately prior to suggesting solutions that may or may not solve an unspecified problem.

Sincerely,



Marjorie B. Colley



NZ

RECEIVED

NOV 6 2003

MEPA

November 4, 2003

The Honorable Ellen Roy Herzfelder, Secretary
Executive Office of Environmental Affairs
ATTENTION: MEPA Office
251 Causeway Street, Suite 900
Boston, MA 02114

RE: EOE A No 12617, COMPREHENSIVE WASTEWATER MANAGEMENT PLAN (CWMP) AND
DRAFT ENVIRONMENTAL IMPACT REPORT (EIR), NANTUCKET, MASSACHUSETTS

Dear Secretary Herzfelder:

Attached please find a series of questions regarding the above referenced matter. These concerns have been raised by members of our organization following the community panel discussion which we hosted yesterday, Monday, November 3. The purpose of the information forum was to provide an opportunity for residents of Nantucket to better understand the findings and recommendations contained in the draft EIR.

The Nantucket Civic League (NCL), founded in 1903, is a non-profit, community organization which represents 22 neighborhood associations and has over 2200 dues-paying members. The mission of the NCL is to promote the general welfare of Nantucket through informed citizen participation in civic affairs. The areas of the island represented by our group include neighborhoods which would be most impacted by the CWMP contained in the draft EIR.

We look forward to having the thoughtful questions and concerns raised by Nantucket residents addressed in a thorough and factual manner in the final EIR. Thank you.

Sincerely,

A handwritten signature in black ink that reads "John W. Atherton, Jr." with a long horizontal flourish extending to the right.

D. Anne R. Atherton
John W. Atherton Jr.
Presidents

Attachment

cc: Nantucket Board of Selectmen

PO Box 181
Nantucket MA 02554
508 228 2367
danne@nantucket.net
rickatherton@comcast.net

Our mission is to promote the general welfare of Nantucket through informed citizen participation in civic affairs.

QUESTIONS

If all the septic systems in Madaket and Warren's Landing study areas met Title 5 requirements, would a wastewater treatment plant be necessary?

If "Yes," why?

If all the septic systems in Monomoy and Shimmo areas met Title 5 requirements, would connection to the existing sewer be necessary?

If "Yes," why?

Has the Town and/or the consultants completed mapping the existing sewer system in Town?

If "No," when will it be completed?

If "No," how accurate can the estimate of upgrading costs be if we don't know the location or condition of the existing system?

Refer to **page 2-34**: "...it is anticipated that some of the identified needs areas will not be able to meet Title 5 regulations."

Specifically how many properties will not meet the standards?

What sensitivity analysis has been applied to the data?

When will more current or more complete data become available?

Refer to **page 2-36**: "...an I/A system can potentially overcome site and environmental constraints but at a premium cost to the property owner."

What is the incremental cost (the difference between the cost of a new Title 5 compliant system and the cost of the alternative) for each of the six I/A alternatives listed? (Recirculating Sand Filter; Amphidrome Process; Bioclere; Cromaglass; RUCK and Single Home FAST)

What would be the incremental cost of retrofitting each of the 6 mentioned I/A systems for a non-compliant Title 5 system in general?

What would be the incremental cost of retrofitting each of the 6 mentioned I/A systems for a non-compliant Title 5 system in Madaket and Warren's Landing specifically?

Refer to **page 2-128**: "Do suitable soils exist for more than 70% of the Study Area? Do suitable groundwater conditions exist for more than 80% of the Study Area?"

Who created these criteria?

Was a sensitivity analysis done for other criteria?

If so, what were the results?

If not, what would be the results if the criteria were 60% and 70% respectively?

If not, what would be the results if the criteria were 50% for each of the above?

For the 'Sconset Wastewater Treatment Facility to replace the present facility, what is the projected cost to build the plant, and what is the estimated further cost for debt service of bonds issued in support of the project?

What are the presently authorized expenditures for upgrading the sewer wastewater collection system and for upgrading the storm water collection system?

How many additional households will be served respectively by the proposed new wastewater treatment facilities—both estimated and within rated capacities?

If the Town has a binding commitment with the State to complete the new Surfside plant, what are the details of the commitment and what new tie-ins to the existing plant are now allowed?

When will the text (of the commitment) be publicly available?

What is proposed to be done with wastewater during the time prior to completion of the respective new facilities?

What assumptions were made to support the 20-year growth projections?

What legal and practical actions will assure that unbuildable lots will not be made buildable by availability of public wastewater sewer tie-ins?

What further costs—not identified in the Phase II report—are entailed if the Town acts upon Earth Tech recommendations, such as debt-service, etc.?

How is septic-tank failure defined? This is heavily weighted in the report.

Do not average conditions for lot size, soil conditions and number of bedrooms overstate the septic requirements?

Did the study of secondary dwellings consider existing covenants, the fact that severe soil conditions will have no septic and that lot size currently restricts the number of bedrooms?

Is the sole source aquifer at risk? Where is the data showing this?

To what extent is nitrogen a pollutant, and where does it come from?

What is the specific reason for spending this money?

NP&EDC



NANTUCKET PLANNING AND ECONOMIC DEVELOPMENT COMMISSION

NZ

November 5, 2003

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NOV 7 2003

MEPA

Ellen Roy Herzfelder
Executive Office of Environmental Affairs
Attention: MEPA Office
251 Causeway Street, Suite 900
Boston, MA 02114
EOEA No. 12617

Subject: EOEA No 12617, Comprehensive Management
Wastewater Plan, Nantucket, MA

Ladies / Gentlemen:

The Nantucket Planning and Economic Development Commission ("NP&EDC"), one of thirteen regional planning agencies in the Commonwealth, is pleased to have this opportunity to submit its comments concerning the Comprehensive Wastewater Management Plan, Draft EIR, Phase II ("CWMP") for Nantucket.

Comprehensive Community Plan – Town and Country Overlay Districts

The NP&EDC acknowledges the consultants' good faith efforts to employ the principles of the Nantucket Comprehensive Community Plan, ratified on January 8, 2001. However, it feels that the document should be more explicit in explaining how the proposed CWMP complies with that Plan.

Specifically lacking is any reference to both the Town and Country (Zoning) Overlay Districts approved as Article 37 of the 2002 Nantucket Annual Town Meeting. The Town Overlay District, codified as Section 139-12C, includes as one of its purposes "to control infrastructure costs by placing limits on the extension of sewer and water infrastructure...subject to the 1998 Sanitary Sewer Policy of the Nantucket Board of Selectmen...". Conversely, the Country Overlay District discourages the extension of sewer facilities unless, consistent with the Board of Selectmen's Sanitary Sewer policy, there is a public health or other valid community need that justifies such extension. Therefore, the NP&EDC strongly suggests that the Town and Country Overlay District boundaries be incorporated on relevant maps in the EIR, and that capacity calculations related to system extension be based on this boundary. The text of the document should also acknowledge the guidance of this Overlay District.

Growth Assumptions

The NP&EDC believes that the basis for the wastewater flow calculations are not sufficiently clear in the text of the CWMP. On p. 1-26, the CWMP simply says that the "estimates are based on the number of developed lots and undeveloped parcels within each study area based on the Assessor's information". There is no explicit reference to the NP&EDC's 1997 buildout report, or to the development capacity permitted through existing zoning. There is an appropriate acknowledgement of the potential of secondary dwelling development, assuming 75% of secondary dwelling capacity.

Admittedly, the Comprehensive Community Plan did not specifically recommend a buildout number for the Island, or for specific areas of the Island. However, based on debate that has continued for many years, there is a consensus in the community that a buildout that is based on the potential of current zoning would yield consequences that no one seemed willing to accept. Therefore, to the extent that the CWMP apparently relies on existing zoning as a measure of sewer capacity, that reliance is inconsistent with the overall intent of the Comprehensive Community Plan to promote a sustainable level of growth.

The NP&EDC is disappointed that the CWMP did not include a separate growth analysis, prepared by an independent consultant with no vested interest in any one solution, which paralleled the development of the CWMP. That growth analysis could have evaluated the growth implications of any alternative wastewater treatment solutions in priority areas in the context of the Comprehensive Community Plan, and could have engaged the community in finding solutions consistent with the Plan.

The following is commentary on the priority area assumptions and solutions, in the context of the Comprehensive Community Plan:

1. Madaket

The NP&EDC acknowledges the water quality concerns within the Madaket Area probably exclude conventional Title V systems as solutions. However, the Commission believes that the analytical process leading to the final solution should be based on a lot-by-lot analysis, rather than on broad assumptions based on the general characteristics of soils. Reference was made to numbers of lots that could be developed should conventional sewers be extended. More detail as to the location and characteristics of potentially developable lots should be clearly articulated in the CWMP EIR.

The CWMP relies on one technique in an effort to limit the development potential of undeveloped lots – a low-pressure sewer. The consultants have made reference to precedent for the application of this technique, including the passage of a Special Act to allow a community to selectively restrict sewer connections in conjunction with a low-pressure sewer plan. Although we have requested documentation of the application of

this technique, we have not received such documentation. As stated above, other potential alternatives restricting growth potential should be explored.

In connection with the recommended solution, the CWMP targets one parcel to meet the wastewater treatment and disposal needs. The NP&EDC feels that the applicant should demonstrate that there are no other sites that are suitable for this purpose, including those at, or in proximity to, the Town's Materials Recovery Facility and Landfill.

2. Warren's Landing

We agree that the Warren's Landing solution to tie into a Madaket system makes more sense than a stand-alone system, or than a connection to the Town's Surfside system.

3. Cisco

We agree with the analysis and the solution.

4. Somerset

We agree with the proposed solution for the Somerset area, which is to extend a gravity and low-pressure sewer to the existing sanitary sewer system serviced by the Surfside plant. This solution is also consistent with the Comprehensive Community Plan. Low-pressure sewer may be an appropriate solution, because of the scarcity of undeveloped lots of record within the subdivision. We assume that second dwelling capacity is to be included. Because this area is in the Town Overlay District, we believe that it is appropriate that other undeveloped parcels within the Town Overlay District be factored in.

We note that Figure 5.3 referenced in the narrative is in fact the figure illustrating the Monomoy solution, and not Somerset.

5. Miacomet

We agree with the analysis and the recommended solution.

6. Surfside

We agree with the analysis and the recommended solution.

7. Tom Nevers – Low Density

We agree with the analysis and the recommended solution.

Tom Nevers – High Density

We agree with the analysis and the recommended solution.

8. Siasconset

We provide no comment, since the solution is currently being implemented.

9. Quidnet

We agree with the analysis and the recommended solution.

10. Wauwinet

We agree with the analysis and the recommended solution.

11. Pocomo

We agree with the analysis and the recommended solution.

12. Polpis

We agree with the analysis and the recommended solution.

13. Town

We agree with the analysis and the solution, but believe that the boundary of the Town Overlay District should be utilized to delineate the extent of sewer service extension, and as a basis for wastewater calculations. In contrast to areas located in the Country Overlay District, Town is the area where most year-round residents reside and conduct their businesses. Therefore, providing sufficient capacity to enable reasonable growth to support the year-round economy is essential. This is also the area within which most housing affordable for year-round residents is likely to be built. Sanitary sewers are necessary to support a higher density of housing necessary to enhance affordability. This is also the area where nearly all the Town's essential services are located.

14. Town WPZ

We do not understand why the CWMP does not advocate a connection to the nearby sanitary sewer system for those lots now on septic in the vicinity of the Town well site. It seems that this solution is feasible, and should be a high priority because of proximity to the well.

15. Shimmo

Although we agree with the extension of sewers to Monomoy, because of generally higher densities, and proximity to the existing sewer area, we do not understand why sewers are recommended for the distinctively lower-density area of Shimmo, as opposed

to more conventional, and potentially cost-effective, solutions. The study should address the growth assumptions and implications of providing low-pressure sewers to this area.

We note that the Figure referenced in the narrative is in error.

16. Monomoy

We agree with the analysis and the solution, which is also generally consistent with the Comprehensive Community Plan.

17. Remaining Island

We agree with the analysis and the recommended solution.

Proposed Sites for Treatment Plant Sitings / Wastewater Disposal

The following are our comments relative to the alternative wastewater treatment and disposal sites:

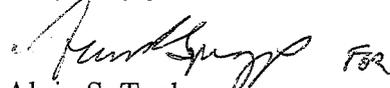
1. FAA site – See comments above in Madaket analysis.
2. UMass Site – We question whether this is a reasonable site in view of its extensive wetlands, generally poor soils, and the probability of the presence of endangered species.
3. Milestone Road – We have doubts about the inclusion of this site, which is owned by the Nantucket Conservation Foundation, and which was cleared as compensatory habitat in connection with the adjoining Nantucket Golf Club. It seems that the use of this site may be viewed as in conflict with these objectives.
4. Tom Nevers Site – the report is in error in indicating that this site is owned by a private entity. The site was developed by a private developer as a cluster subdivision, but the vast majority of the site was deeded to the Nantucket Conservation Foundation as open space. There are documented endangered species in proximity of this site.
5. State Forest Site – this site seems inappropriate from several perspectives. First, it is in the public domain, and is utilized for passive recreational purposes, and recommended as greenbelt in the Comprehensive Community Plan. Use of the site for wastewater treatment would compromise the public use and enjoyment of the property. Secondly, it is in close proximity to the Wannacomet Water Company's principal well. We question the desirability of a treatment facility in such close proximity to a major public water supply.

Other Comments

1. We note that there are numerous inconsistencies between the text of the CWMP and graphic references throughout the report – too numerous to enumerate here.
2. On p. 112, Warren's Landing, we note that there is reference to 221% of the study area classified as having moderate to severe groundwater levels – an obvious typographical error.
3. What is the significance of the distance of 3,600 feet used in reference to proximity of septic systems to the Harbor?
4. The analysis of each area is described in terms of total acreage and acreage developed. The reader is led to the implicit conclusion that the difference between the two figures is therefore acreage ~~with~~ development potential. This is incorrect for many areas, because of the extraordinary amount of open space that has been acquired by the Town, Land Bank, and environmental organizations. A more honest description of the characteristics of each of these areas would also document the acreage of open space.
5. Concerning residential water use (p.2-10), advocacy of the use of water saving devices is mentioned, but there is no mention of code modifications to mandate their installation and potential retrofit. Nantucket is blessed with a rich historic heritage, but many of those structures have obsolescent plumbing systems that are anything but water-efficient. Implementation of an aggressive program which has the effect of limiting water use can have a significant impact on the volume of wastewater required to be treated, and can dramatically increase the cost-effectiveness of any solution.
6. Figure 3-2, depicting natural resources and environmentally sensitive areas, is difficult to read – it is difficult to determine which are the sensitive versus areas, and which are those not designated as sensitive.
7. On p. 4-25, the CWMP erroneously reports that the NP&EDC retained Earth Tech.

We thank you for this opportunity to comment on this important planning document that has serious implication on the future of the Island.

Very truly yours,



Alvin S. Topham
Chairman

Cc: Nantucket Board of Selectmen

Deborah B. Bennett
36 S. Cambridge Street
Nantucket, MA 02554

NZ

November 5, 2003

Ellen Roy Herzfelder
Executive Office of Environmental Affairs
Attention: MEPA Office
251 Causeway Street, Suite 900
Boston, MA 02114
EOEA No. 12617

RECEIVED

NOV 7 2003

RE: EOE A No 12617
Comprehensive Wastewater Management Plan
Nantucket, MA

MEPA

Dear Ms. Herzfelder:

I am writing to comment on the Comprehensive Wastewater Management Plan, Draft EIR, Phase II ("CWMP") for Nantucket. I am an at-large member of the Nantucket Planning and Economic Development Commission and the Chairman of the Madaket Area Plan Work Group. However, I am writing this letter to you as Nantucket, and particularly Madaket, resident.

I request that the U.S. Army Corps of Engineers respond to the following questions/comments in the Phase III of the draft CWMP:

- For Madaket in particular, this study is "putting the cart before the horse." There are several efforts underway, including the Estuaries Program study, the Madaket Harbor Watershed Advisory Group, DNA testing, etc. that should be completed and analyzed to more accurately define any problems in Madaket. We should not jump to the conclusion that a package treatment plant is the only course of action. The results of these various studies need to be looked at in detail, and a lot-by-lot analysis should be conducted to identify specific septic systems that may be failing and determine how much it would cost to upgrade these systems. The cost of this approach should be compared to the projected cost to design, build and maintain a plant in Madaket
- Please evaluate other potential sites in Madaket, other than the FAA-owned parcel on Red Barn Road. Our house overlooks this land and it is a beautiful stretch of open space, inhabited by numerous unique and exquisite birds and vegetation. Perhaps there is a large enough parcel closer to the Materials Recovery Facility that could serve the same purpose?

Please call me at 508-325-0755 or email me at debbiebennett225@hotmail.com if you have any questions about this letter. Thank you for your consideration of these most important issues.

Sincerely,

Deborah B. Bennett

NZ

CLARK M. WHITCOMB
19 STARBUCK RD.
NANTUCKET, MA 02554
phone: 508-228-9526
cell phone: 508-221-1122
fax: 508-825-0854
e-mail: ncwhitcomb@comcast.net

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MEPA

November 4, 2003

Ellen Roy Herzfelder
Executive Office of Environmental Affairs
Attention: MEPA Office
251 Causeway Street, Suite 900
Boston, MA 02114
EOEA No. 12617

**SUBJECT: EOEA No. 12617, COMPREHENSIVE WASTEWATER
MANAGEMENT PLAN AND DRAFT ENVIRONMENTAL IMPACT REPORT,
NANTUCKET, MASSACHUSETTS**

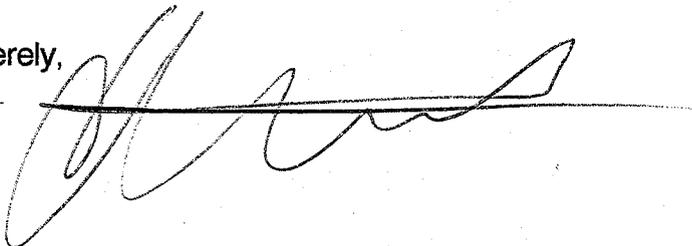
Dear Ms. Herzfelder:

As a full-time, year-round resident of the Madaket section of Nantucket, I have been following with interest the development of the Comprehensive Waste Water Management Plan. I am active in community affairs, including participation in the Madaket Harbor Watershed Study Group, the Madaket Area Plan Work Group, The Madaket Conservation Association, The Nantucket Conservation Commission and the Nantucket Planning & Economic Development Commission. All of these groups are vitally concerned with the health of our water related resources and the impacts that additional development will have on those resources.

I have reviewed the subject matter and I have read the written responses that have been sent to you by Alvin Topham, Chairman of the NP&EDC; Dr. Robert Rudin; Mr. Lars Soderberg ; Ms. Debbi Deeley. I concur with all their comments. To save space and time, I feel it is not necessary to repeat what they have already said.

I do wish to stress one point, however. Before any further planning or action takes place toward building a wastewater treatment plant in Madaket, there must be a complete, comprehensive program of inspecting and testing existing septic systems to determine if any are causing pollution of our water resources.

Sincerely,





COMMONWEALTH OF MASSACHUSETTS
EXECUTIVE OFFICE OF ENVIRONMENTAL AFFAIRS
DEPARTMENT OF ENVIRONMENTAL PROTECTION
SOUTHEAST REGIONAL OFFICE

20 RIVERSIDE DRIVE, LAKEVILLE, MA 02347 508-946-2700

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MITT ROMNEY
Governor

KERRY HEALEY
Lieutenant Governor

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ELLEN ROY HERZFELDER
Secretary

ROBERT W. GOLLEDGE, Jr.
Commissioner

November 18, 2003

Secretary Ellen Roy Herzfelder
Executive Office of Environmental Affairs
51 Causeway Street, 9th Floor
Boston, Massachusetts 02202

RE: NANTUCKET – DEIR Review
Phase II EOE #12617
Comprehensive Wastewater
Management Plan (CWMP)

Dear Secretary Herzfelder,

The Boston Office and the Southeast Regional Office of the Department of Environmental Protection have reviewed the Phase II/Draft Environmental Impact Report (DEIR) for the proposed Island-wide Comprehensive Wastewater Management Plan (CWMP) for the Town of Nantucket, Massachusetts (EOEA #12617). The project proponent provides the following information for the project:

“The scope of this Phase II CWMP/DEIR analyzed the selected alternatives in accordance with the revised scope that was issued by the Secretary of EOE and comments received on the Phase I CWMP/ENF document. The MEPA Certificate issued by the Secretary on November 16, 2001 asked for further clarification with regards to identification of Needs Areas and the methodology used in order to ensure the rankings and rationale for the Study Areas is clear and appropriate.

This Phase II CWMP/DEIR document contains the preliminary investigation into the viability of siting wastewater treatment facility(s) and/or highly treated wastewater effluent disposal facilities in Nantucket. Site selection, for both the wastewater treatment facilities (WWTFs), and the effluent disposal field(s) is the most difficult to resolve. The screening criteria presented were developed to assess the viability of 14 sites identified within Nantucket as potential wastewater treatment facility and/or wastewater disposal facility sites.

The Phase II CWMP/DEIR presents recommendations for wastewater management in the ten identified areas of the Town of Nantucket where existing on-site wastewater disposal systems are shown to be inadequate for long-term wastewater disposal.”

This information is available in alternate format. Call Aprel McCabe, ADA Coordinator at 1-617-556-1171. TDD Service - 1-800-298-2207.

DEP on the World Wide Web: <http://www.mass.gov/dep>

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The Southeast Regional Office (SERO) and the Bureau of Resource Protection (BRP) of the Boston office of the Department of Environmental Protection (DEP) have reviewed the Phase II Draft CWMP/EIR for the Town of Nantucket, and have the following comments:

1. The Department generally concurs with the recommendations of the report, and commends the town and their consultants for the development of the long-term plan that will, over time, address the wastewater treatment and disposal needs of the town. The comments that follow should be addressed in the Final CWMP/EIR or, in the case of treatment plant design issues, in preliminary design reports.
2. The report's executive summary discusses the \$92 million plan for wastewater management presented in detail in this report, but also briefly discusses an \$83 million plan for rehabilitation of existing wastewater and ~~stormwater~~ infrastructure, including Infiltration/Inflow (I/I) removal. There does not appear to be any further discussion of the latter plan in the recommended plan chapter, and this is somewhat confusing. On pages 5-39 and 5-40, there is a listing of recommended upgrades to existing wastewater pump stations, but it isn't clear whether this is part of the \$92 million plan or the other plan. The recommended plan chapter in the Final CWMP/EIR should clarify this and more fully explain what the elements of the \$83 million plan are, and what the financial and household cost implications will be.
3. The Final CWMP/EIR should present more detailed wastewater flow tables for the recommended collection and treatment systems for Madaket and Surfside. The flows should be presented in the format of the table attached to these comments.
4. The recommended plan chapter of the Final CWMP/EIR should include a presentation of average household costs (for both capital and O&M) for both the households on the sewer systems and those who will continue to remain on on-site systems.
5. The Final CWMP/EIR should identify any properties proposed for sewerage that lie within designated V-zones and describe what legal and institutional mechanisms (such as by-laws) will be implemented to control additional development of such properties.
6. The implementation schedule included in the Final CWMP/EIR should be adjusted to conform with the recently signed Administrative Consent Order (ACO) between the town and the Department.
7. The Final CWMP/EIR should indicate that a ground water monitoring plan for the area downgradient of the Madaket discharge will be developed as part of the ground water discharge permit application, particularly because of the presence of private wells downgradient of the proposed discharge.
8. Preliminary Design comments:
 - The recommendation for the discharge beds at Surfside is to raise the bottom elevations for several beds. How will the operation of the existing beds be

affected, and what will be the effects on the hydraulics? Will pumping be needed? How will flow balance between the beds be maintained?

- Will the increased wastewater pumping rates from the Sea Street pumping station have any significant impact on the design of the existing primary clarifiers, and can they handle the increased flows?
- Will there be any significant seasonal wastewater flow variations at the Madaket facility that would warrant consideration of the need for more than two SBRs (i.e., a system more like the design of the Siasconset facility)? If two SBRs are the recommended design configuration, how will the design be able to remain operational and meet permit limits if one of the units is down for either minor repairs or a longer period due to a major problem?

EXISTING AND PROJECTED FLOWS

FLOW COMPONENT	EXISTING (mgd)	INITIAL (mgd)	DESIGN (mgd)
(1) Average Daily Residential (2) Average Daily Industrial (3) Average Daily Commercial (4) Average Daily Institutional/Special (5) Average Daily Intermunicipal (6) Septage <u>Average Daily Total (1)</u> Peaking Factor Peak Wastewater (2)			
Average Daily Infiltration Peak Monthly Infiltration Peak Inflow			
Average Annual Flow (3) Peak Monthly Average Flow (4)			

Peak Daily Flow (5)			
Peak Hourly Flow (6)			

- (1) Sum of components 1 through 6
- (2) Average Daily Total multiplied by peaking factor
- (3) Average Daily Total plus Average Daily Infiltration
- (4) Average Daily Total plus Peak Monthly Infiltration
- (5) Average Daily Total plus Peak Monthly Infiltration plus Peak Inflow
- (6) Peak Wastewater plus Peak Monthly Infiltration plus Peak Inflow

*For seasonal communities, add a breakdown for the seasonal maximum and for the remainder of the year.

Waste Site Cleanup Comments

In comprehensive planning for wastewater management for Nantucket, the Bureau of Waste Site Cleanup (BWSC) emphasizes that a number of former and current disposal sites and release notifications occur within the town.

The Project Proponent is advised that, if oil and/or hazardous material is identified during the implementation of this project, notification pursuant to the Massachusetts Contingency Plan (310 CMR 40.0000) must be made to the Department, if necessary. A Licensed Site Professional (LSP) may be retained to determine if notification is required and, if need be, to render appropriate opinions. The LSP may evaluate whether risk reduction measures are necessary or prudent if contamination is present. The BWSC may be contacted for guidance if questions regarding cleanup arise.

The DEP Southeast Regional Office appreciates the opportunity to comment on this proposed project. If you have any questions regarding these comments, please contact Sharon Stone at (508) 946-2846.

Very truly yours,



David A. DeLorenzo,
Deputy Regional Director,
Bureau of Resource Protection

DD/SS

Cc: DEP/SERO

ATTN: David Johnston,
Deputy Regional Director

Jeffrey Gould
Chief, Water Pollution Control

Tena Davies
Team Leader, Ten Mile River and Islands Watershed

Richard Keith
Chief, Municipal Services

Cc: DEP/Boston

ATTN: Leena McQuaid
Jack Hamm
John O'Brien
Ronald Lyberger



THE COMMONWEALTH OF MASSACHUSETTS
 EXECUTIVE OFFICE OF ENVIRONMENTAL AFFAIRS
 OFFICE OF COASTAL ZONE MANAGEMENT
 251 Causeway Street, Suite 900, Boston, MA 02114-2136
 (617) 626-1200 fax: (617) 626-1240

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MEPA

MEMORANDUM

TO: Ellen Roy Herzfelder, Secretary, EOE
 ATTN: Nick Zavolas, MEPA Unit
 FROM: Tom Skinner, Director, CZM
 DATE: November 3, 2003
 RE: EOE 12617 – Comprehensive Wastewater Management Plan and Draft Environmental Impact Report, Phase II-Alternatives and Site Identification; Nantucket

The Massachusetts Office of Coastal Zone Management (CZM) has completed its review of the above-referenced Draft Environmental Impact Report (DEIR), noticed in the Environmental Monitor dated October 7, 2003 and requests that the following matters be addressed in the final Environmental Impact Report (FEIR).

The Comprehensive Wastewater Management Plan (CWWMP) and DEIR include an evaluation of alternatives for managing wastewater disposal on Nantucket. Several needs areas are identified and a combination of new sewerage and the use of existing on-site disposal systems managed through a Septage Management Plan are recommended. In addition, the Town of Nantucket intends to address Executive Order 385/Planning for Growth issues with special legislation and the development of new zoning overlays delineating sewer and septic districts.

CZM appreciates that the Town of Nantucket and its agents have addressed our comments on the CWWMP Environmental Notification Form (ENF) related to siting criteria and the use of nitrogen loading data from the Department of Environmental Protection (DEP) Estuaries Project. CZM recognizes that the Estuaries Project data may not be available in time for it to influence the Septage Management Plan for the Pocomo, Polpis, and Wauwinet needs areas, however, we encourage inclusion of the Estuaries Project data and the future target nitrogen loading limit when they become available.

CZM's comments on the ENF regarding erosion and flood hazards have not been addressed in the DEIR. It is Commonwealth's policy, implemented by CZM, to ensure that public works projects proposed within the coastal zone will not exacerbate existing hazards or damage natural buffers or other resources; that they will be reasonably safe from flood and erosion related damage; and that they will not promote growth and development in hazard-prone or buffer areas. CZM requests that specific information on the location of proposed sewer lines, infiltration beds, pump stations, treatment facilities, and any other infrastructure be mapped relative to the Federal Emergency Management Agency's (FEMA) mapped flood zones, as shown on the Flood Insurance Rate Maps (FIRM) for Nantucket, so that we can complete our review of the proposed project in relation to our Coastal Hazards Policies. CZM notes that the



100-year floodplain generally extends to the inland limit reachable by floodwaters to the corresponding base flood elevation indicated on the FEMA FIRM. The digital flood zone data, or 'Q3' data, is generally not accurate enough for this analysis; earlier attempts to use it indicated that the landward boundary of the velocity zone was seaward of the mean high water line. Therefore, CZM recommends that flood zone boundaries be determined using the paper flood maps. CZM recommends that site-specific topographic information be presented in the FEIR, along with the flood zone boundaries and erosion rate information to facilitate a complete review of which parts of the project will be in or adjacent to the high hazard area. Based on this information, if some elements of the project are proposed in high hazard areas, CZM recommends that alternative locations be evaluated to avoid these impacts. Finally, if some components must be sited in high hazard areas, CZM recommends that information be provided regarding design considerations for protecting these structures for the life of the project.

CZM believes the flood zone and high hazard issues are significant and recommends that, prior to the development of the FEIR, the proponents provide additional information to DEP and CZM to address flood zone and high hazard area issues for further review and coordination.

The proposed project may be subject to CZM federal consistency review, in which case the project must be found to be consistent with CZM's enforceable program policies. For further information on this process, please contact Jane W. Mead, Project Review Coordinator, at 617-626-1219 or visit the CZM web site at www.state.ma.us/czm/fcr.htm.

TWS/tpc/rh

cc: Truman Henson,
CZM Cape and Islands Regional Coordinator
Elizabeth Kouloheras, Section Chief
Southeast Regional Office, MA DEP
Ben Lynch, Acting Section Chief
Waterways Program, MA DEP



Commonwealth of Massachusetts

Division of Fisheries & Wildlife

MassWildlife

Wayne F. MacCallum, *Director*

January 14, 2004

Timothy Sullivan
Earth Tech
196 Baker Avenue
Concord, MA 01742

Re: Surfside and FAA Wastewater Management Sites
Nantucket, MA
NHESP File: 01-9335

Dear Mr. Sullivan,

Thank you for contacting the Natural Heritage and Endangered Species Program ("NHESP") of the MA Division of Fisheries & Wildlife for information regarding state-protected rare species in the vicinity of the above referenced site. I have reviewed the site and would like to offer the following comments.

Please see the attached species list for Priority Habitat 1737 (formerly PH 1792) and Estimated Habitat 688 as indicated in the 11th Edition of the Massachusetts Natural Heritage Atlas. Our database indicates that the following protected rare species occur within or in the vicinity of the following sites:

FFA site

Scientific name	Common Name	Taxonomic Group	State Status
<i>Asio flammeus</i>	Short-eared Owl	Bird	Endangered
<i>Circus cyaneus</i>	Northern Harrier	Bird	Threatened
<i>Podilymbus podiceps</i>	Pied-billed Grebe	Bird	Endangered
<i>Amelanchier nantucketensis</i>	Nantucket Shadbush	Plant	Special Concern
<i>Liatris borealis</i>	New England Blazing Star	Plant	Special Concern
<i>Linum intercursum</i>	Sandplain Flax	Plant	Special Concern
<i>Prenanthes serpentaria</i>	Lion's Foot	Plant	Endangered
<i>Sisyrinchium arenicolu</i>	Sandplain Blue-eyed Grass	Plant	Special Concern

Surfside Site

Scientific name	Common Name	Taxonomic Group	State Status
<i>Asio flammeus</i>	Short-eared Owl	Bird	Endangered
<i>Circus cyaneus</i>	Northern Harrier	Bird	Threatened
<i>Charadrius melodus</i>	Piping Plover	Bird	Threatened
<i>Helianthemum dumosum</i>	Bushy Rockrose	Plant	Special Concern

www.masswildlife.org

Division of Fisheries and Wildlife

Field Headquarters, One Rabbit Hill Road, Westborough, MA 01581 (508) 792-7270 Fax (508) 792-7275

An Agency of the Department of Fisheries, Wildlife & Environmental Law Enforcement

These species are protected under the Massachusetts Endangered Species Act (M.G.L. c. 131A) and its implementing regulations (321 CMR 10.00). State-listed wildlife are also protected under the state's Wetlands Protection Act (M.G.L. c. 131, s. 40) and its implementing regulations (310 CMR 10.37 and 10.59). Fact sheets for most of these species can be found on our website at: www.state.ma.us/dfwele/dfw/nhesp/nhfact.htm.

This evaluation is based on the most recent information available in the Natural Heritage database, which is constantly being expanded and updated through ongoing research and inventory. Should your site plans change, or new rare species information become available, this evaluation may be reconsidered.

MA Endangered Species Act (G.L. c. 131A)

Using the list of rare species provided above, we recommend that rare wildlife and/or plant surveys and assessments be conducted by qualified individuals within suitable habitats on and near the site according to scientifically accepted survey methodologies. A Rare Animal/Plant Observation Form, available at our website www.nhesp.org, should be submitted for each species encountered. If during this site evaluation rare species are found on or near the site, then site plans and a project description should be sent to NHESP Environmental Review to determine whether a probable "take" under the MA Endangered Species Act would occur (321 CMR 10.04).

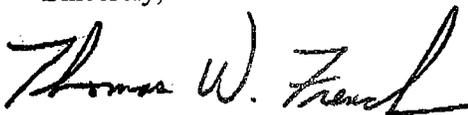
If NHESP determines that the proposed project would "take" a rare species, and the site is greater than two acres, and within a Priority Habitat site, an Environmental Notification Form should be submitted pursuant to the MA Environmental Policy Act regulations (301 CMR 11.03(2)(b)(2)). If the project site does not occur within a Priority Habitat, but rare species have recently been found on or near the site, then site plans and a site description should be submitted for MESA review. A Conservation & Management Permit (301 CMR 10.04 (3)(b)) may be required for work in rare species habitat.

Wetlands Protection Act

If the project site is within Estimated Habitat for Rare Wildlife and a Notice of Intent (NOI) is required, then a copy of the NOI must be submitted to the NHESP in a timely manner, so that it is received at the same time as the local conservation commission. Using the species list provided above, the Resource Areas on the site should be evaluated as important wildlife habitat for state-protected species, focusing on those areas that provide feeding, breeding, over-wintering, shelter and migration functions. The project should be evaluated for compliance with the rare species performance standard, which is that there shall be no short or long-term adverse affects to the habitat (within Resource Areas) (310 CMR 10.37 and 10.59).

The NHESP is of the opinion that the FAA site in Madaket has far greater ecological significance than the Surfside WWTF site. If you have any questions regarding this review, please call Patricia Huckery, Endangered Species Analyst, at ext. 151.

Sincerely,



Thomas W. French, Ph.D
Assistant Director

cc: Nantucket Planning Board
Nantucket Conservation Commission