



CAPE COD COMMISSION

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DATE: May 10, 2001

TO: Raymond A. Jack, Utilities Manager
Heather Harper, Town Administrator (acting)

FROM: Cape Cod Commission

RE: Development of Regional Impact
Cape Cod Commission Act, Sections 12 & 13

APPLICANT: Town of Falmouth

PROJECT: ENF #96024
Falmouth Wastewater Facilities Plan

BOOK/PAGE: 665 / 46

DECISION OF THE CAPE COD COMMISSION

SUMMARY

The Cape Cod Commission (Commission) hereby approves with conditions the application of the Town of Falmouth as a Development of Regional Impact (DRI) pursuant to Sections 12 and 13 of the Cape Cod Commission Act (Act), c.716 of the Acts of 1989, as amended, for the proposed Wastewater Facilities Plan. The decision is rendered pursuant to a vote of the Commission on May 10, 2001.

PLAN DESCRIPTION

The Town of Falmouth began a Wastewater Facilities Plan (Plan) process in 1999 due to concerns that the current state Class III groundwater designation near and downgradient of the town wastewater treatment facility allowed nitrogen discharges of up to 50 ppm and that the facility's existing nitrogen discharges were degrading the water quality in West Falmouth Harbor. The wastewater treatment facility, located off Blacksmith Shop Road in West Falmouth, has operated since 1986. The water quality of the Harbor has declined in recent years due to the inflow of treatment plant effluent, as documented by reductions in eelgrass and shellfish presence in the Harbor.

The town has retained the services of Stearns & Wheeler, LLC, to assist in the completion of the Wastewater Facilities Plan. Stearns & Wheeler prepared the project scope, produced reports, and

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filed all documents with the Executive Office of Environmental Affairs (EOEA) and the Cape Cod Commission for joint regulatory review. The recommendations in the Plan are for the town to upgrade the existing wastewater treatment plant to provide better effluent quality and greater volume capacity. The Plan calls for nitrogen treatment to an average effluent concentration of 3 parts-per-million (ppm), and increase in design capacity to 1.2 million gallons per day (MGD), with potential for future expansion to 1.4 MGD. The facility presently handles wastewater flows of 0.43 MGD. Much of this new capacity would be used to provide sewer connections to sections of the town not currently in the sewer system. The sites and areas to be connected to the facility include the public high school (0.01 MGD), parcels along Scranton Avenue and North Davis Straits (0.2 MGD), and parcels in the West Falmouth Harbor watershed west of Route 28 (0.23 MGD). An additional 0.2 MGD of reserve capacity and flow of 0.56 MGD in the existing service areas is also included. The Plan also explores options of disposing the treated effluent at sites outside of the watershed to West Falmouth Harbor.

This wastewater facilities Plan has involved the participation of many parties through technical meetings, study assistance and other meeting forums. In addition to the Commission and town officials, the parties included the state Department of Environmental Protection (DEP), the town citizen wastewater advisory committee, the University of Massachusetts at Dartmouth School for Marine Studies and Technology (SMAST), the Buzzards Bay Project, and the West Falmouth Boat Club. Much of the work completed during the Facilities Plan's development is based on water quality studies and sampling completed by the Cape Cod Commission, SMAST, the Buzzards Bay Project, the Coalition for Buzzards Bay, and the Falmouth Pond Watchers.

The project before the Commission for review is the Final Wastewater Facilities Plan and Final Environmental Impact Report of January 2001. The Falmouth Town Meeting approved the recommendations of the Plan on April 2nd, 2001. A town referendum will be held on May 15th, 2001 to seek approval for the Plan's recommendations and the necessary funding from the full town body.

PROCEDURAL HISTORY

Pursuant to a Memorandum of Understanding between the Cape Cod Commission and the Executive Office of Environmental Affairs (EOEA), the applicant elected to participate in a joint Cape Cod Commission / MEPA review process designed to address the concerns of both agencies and expedite project review.

An Environmental Notification Form (ENF) was filed with the Massachusetts Executive Office of Environmental Affairs, along with a Development of Regional Impact (DRI) application to the Cape Cod Commission, for joint MEPA/CCC review on January 15, 1999. An authorized subcommittee of the Commission held a duly noticed public hearing, pursuant to Section 5 of the Act, on the ENF in Falmouth on February 2, 1999. The Secretary of Environmental Affairs determined that the project required the preparation of an Environmental Impact Report on February 22, 1999. A Needs Assessment report was submitted to MEPA and the Commission in May, 1999. The subcommittee held a public hearing for the Needs Assessment report in Falmouth on June 10, 1999, and a subcommittee meeting on June 28, 1999. The Alternatives

Screening and Analysis Report was submitted to MEPA and the Commission in October, 1999. The subcommittee held a public hearing on the Alternatives Screening report on November 4, 1999 and a subcommittee meeting on November 28, 1999. The Draft Wastewater Facilities Plan / Draft Environmental Impact Report (DEIR) was submitted to MEPA and the Commission in January, 2000. The subcommittee held a public hearing on the Draft EIR on March 2, 2000 and a subcommittee meeting on March 6, 2000. The Secretary of Environmental Affairs certified the Draft EIR as being in compliance with MEPA regulations on March 16, 2000.

The Final Wastewater Facilities Plan / Final Environmental Impact Report (FEIR) was submitted to MEPA and the Commission on February 5, 2001. A public hearing to discuss the Final EIR was held on March 14, 2001, in Falmouth (the hearing was originally scheduled for March 5th, but was postponed due to weather). After the hearing, the subcommittee voted to direct staff to write a comment letter to MEPA endorsing the Final EIR. The Secretary of Environmental Affairs certified the Final EIR as being in compliance with MEPA regulations on March 16, 2001.

A public hearing to discuss the project as a DRI was held on March 28, 2001, at the Gus Canty Community Center in Falmouth. At the conclusion of this hearing, a subcommittee meeting was held to discuss the Plan. At this meeting, the subcommittee unanimously voted to recommend to the full Commission approval of the project, subject to conditions. The subcommittee held a meeting on May 2, 2001 to review draft findings and conditions. A final public hearing was held before the full Commission on May 10, 2001. After closing this hearing and the record, the Commission voted unanimously to approve the project as a DRI, subject to conditions.

MATERIALS SUBMITTED FOR THE RECORD

From the Applicant

- Development of Regional Impact application and Environmental Notification Form, requesting joint Commission/MEPA review, from Stearns & Wheler, LLC, on behalf of Town of Falmouth, received January 13, 1999
- Needs Assessment report, prepared by Stearns & Wheler, received May 18, 1999
- Letter from Raymond Jack, Falmouth utilities manager, to Margo Fenn, dated August 19, 1999
- Memorandum from Nate Weeks and Wayne Perry of Stearns & Wheler, to Raymond Jack, Falmouth utilities manager, received August 24, 1999
- Draft Wastewater Facilities Plan and Draft Environmental Impact Report, prepared by Stearns & Wheler, received January 28, 2000
- Memorandum from Nate Weeks and Wayne Perry of Stearns & Wheler, to Raymond Jack, Falmouth utilities manager, received January 31, 2000
- Memorandum from Nate Weeks and Wayne Perry of Stearns & Wheler, to Ed Eichner, received April 14, 2000
- Copy of letter from Peter Boyer, Town Administrator, to David DeLorenzo of DEP, received January 24, 2001
- Final Wastewater Facilities Plan and Final Environmental Impact Report, prepared by Stearns & Wheler, received February 5, 2001

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- Copy of letter from Ray Jack to MEPA, requesting extension of deadline for comments on Final EIR, received March 7, 2001
- Letter from Matthew Patrick, chairman of Falmouth Board of Selectmen, to Secretary of Environmental Affairs, received March 12, 2001
- Copy of presentation slides given at Final EIR public hearing by Stearns & Wheler, received March 14, 2001

From the Cape Cod Commission

- Staff report for hearing on Environmental Notification Form and scoping session, January 29, 1999
- Comment letter to MEPA on the Environmental Notification Form, February 12, 1999
- Staff report for hearing on Needs Assessment, June 4, 1999
- Comment letter to MEPA on Needs Assessment, August 10, 1999
- Letter from Margo Fenn to Raymond Jack, Falmouth utilities manager, August 27, 1999
- Staff report for hearing on Alternatives Screening and Analysis Report, November 1, 1999
- Comment letter to MEPA on Alternatives Screening and Analysis Report, November 29, 1999
- Staff report for Draft EIR hearing, February 25, 2000
- Comment letter to MEPA on Draft EIR, March 7, 2000
- Open letter from Frank Shephard, Falmouth representative to the Commission and member of the project subcommittee, in response to comments made at Falmouth Selectmen's meeting, dated May 31, 2000
- Staff report for Final EIR hearing, March 1, 2001
- Comment letter to MEPA on Final EIR, March 15, 2001
- Staff report for DRI hearing, March 27, 2001
- Letter to Peter Boyer, Town Administrator, notifying of subcommittee's decision to recommend approval of project with conditions, dated March 29, 2001
- Memorandum to Peter Boyer, Town Manager, and Raymond Jack, Utilities Manager, with working draft of findings and conditions, to be discussed at meeting of April 18th, dated April 12, 2001

From State & Local officials

- Certificate from the Secretary of Environmental Affairs on the Environmental Notification Form, received February 26, 1999
- Letter from Massachusetts Historical Commission to Secretary of Environmental Affairs, received November 22, 1999
- Letter from Massachusetts Historical Commission to Secretary of Environmental Affairs, received March 9, 2000
- Certificate from the Secretary of Environmental Affairs on the Draft EIR, received March 22, 2000
- Letter from David DeLorenzo, DEP deputy regional director, to Nate Weeks and Wayne Perry of Stearns & Wheler, received December 27, 2000
- Letter from Massachusetts Historical Commission to Secretary of Environmental Affairs, received March 12, 2001
- Certificate from the Secretary of Environmental Affairs on the Final EIR, received March 22, 2001

From the public

- Copy of letter from Robert McLaughlin, Sr., to Secretary of Environmental Affairs, received February 8, 1999
- Copy of letter from Robert McLaughlin, Sr., to Department of Environmental Protection, received March 19, 1999
- Letter from Gary Hayward, received June 10, 1999
- Letter from John Donohoe, received June 14, 1999
- Copy of letter from Robert McLaughlin, Sr. to Falmouth Board of Selectmen, received June 15, 1999
- E-mail message from George Hampson, received June 17, 1999
- E-mail message from John Ross, received June 23, 1999
- E-mail message from Alan Fleer, received June 25, 1999
- Copy of letter from Robert McLaughlin, Sr. to DEP, received July 16, 1999
- Letter from Robert McLaughlin, Sr., received August 7, 1999
- Letter from Robert McLaughlin, Sr., received November 4, 1999
- Letter from Gary Hayward, received November 8, 1999
- Letter from Joe Costa, executive director of Buzzards Bay Project, received November 15, 1999
- Letter from Christiane Crasemann Collins, received November 15, 1999
- E-mail message from Alan Fleer, received November 17, 1999
- Letter from Gary Hayward, received November 18, 1999
- Letter from John Ross, received November 29, 1999
- Draft report from UMass-Dartmouth Center for Marine Science and Technology, "Evaluation of the Nutrient Related Health of West Falmouth Harbor", prepared by Brian Howes, Kirsten Smith, & George Hampson, received March 1, 2000
- Letter from Robert McLaughlin, Sr., received March 1, 2000
- E-mail message from Alan Fleer, received March 6, 2000
- Letter from Walter McLaughlin, Jr., by fax, received March 6, 2000
- Letter from Robert E. McLaughlin, Sr., received March 8, 2000
- E-mail message from John Ross, received March 8, 2000
- Copy of letter from Coalition for Buzzards Bay to MEPA, received March 13, 2000
- Photographs of eelgrass in West Falmouth Harbor, submitted by George Hampson at public hearing, March 14, 2001
- Letter from John Donohoe, by fax, received March 15, 2001
- Letter from Alexander M. Joyce, received March 19, 2001
- Letter from Robert E. McLaughlin, Sr., by fax, received April 17, 2001
- Copy of suggested revisions to findings & conditions, by fax, from Peter Boyer, Town Administrator, received April 27, 2001
- E-mail message from Alan Fleer, received May 2, 2001
- Letter from Nancy Hayward, dated February 28, 2001; received May 10, 2001
- Letter from Heather Harper, acting town administrator, received May 10, 2001

The application and notices of public hearings relative thereto, the Commission staff's notes, exhibits and correspondence, the transcript and minutes of meetings and hearings, and all written submissions received in the course of the proceedings are incorporated into the record by reference.

TESTIMONY

Several duly-noticed public hearings and meetings were held during the review process for the Falmouth Wastewater Facilities Plan.

The first public hearing was held on February 2, 1999, in Falmouth, to review the Environmental Notification Form and scope of services for the wastewater facilities planning study. Nate Weeks of Stearns & Wheler presented the project elements, noting that the Facilities Plan covers a 20-year time frame, from 2003 to 2023. He stated that the previous wastewater plan for the town was done in 1981, and led to the construction of the wastewater treatment facility that continues to serve many areas of town. He noted that the plant does not provide nitrogen removal and has a capacity insufficient for expected town needs and growth. He explained that the treated effluent flows into West Falmouth Harbor, making the watershed of the harbor a major element of the project study. Discussion and questions from the subcommittee focussed on which parts of town would be considered for new sewer connections and the treatment capacity of the current plant. Sarah Korjeff, the staff planner, explained the joint MEPA/CCC review process. She noted that the project has implications for land use and development in addition to the fundamental water resource issues. Ed Eichner gave water resource comments on the scope of services, noted the importance of a well-defined Needs Assessment, and suggested revisions to the list of tasks in the Scope. Public comments in support of the project and its goals were given by Robert McLaughlin, John Ross, Brian Howes, and Alan Flear.

The public hearing for the Needs Assessment report was held June 10, 1999. The findings of this report were presented by Nate Weeks of Stearns & Wheler. He reviewed the planning areas within town that are recommended to have sewer connections – the high school, Woods Hole, Main Street/Falmouth Beach, and Davis Straits/Inner Harbor. He noted the nitrogen load that currently enters West Falmouth Harbor from the treatment plant effluent. He reviewed the process and reasoning for recommended sewer connections for various planning areas, and why some areas were not recommended for sewerage. Ray Jack, the town utilities manager, explained the nature of the ongoing study and comparisons with a comprehensive wastewater study, noting the advantages in cost and time for the current project. Sarah Korjeff, the staff planner, explained the review process and that the Commission is providing informal comments on this Needs Assessment report. She noted that the report does not include some environmental analysis that the Commission had requested in its comments on the project ENF. Ed Eichner discussed the ecological issues of the report, and noted that more study should be done on the impacts occurring to West Falmouth Harbor. He noted that nitrogen concentrations in the harbor have doubled in the seven years of the treatment plant's operation. He also stated that there is much information on this harbor from various sources, which should be pulled together in future phases of this project. Public comments in support of and questions about the Needs Assessment report were made by John Ross, Alan Flear, and Robert McLaughlin.

The public hearing on the Alternatives Screening Analysis report was held November 4, 1999 in Falmouth. Nate Weeks of Stearns & Wheler explained that this was the second phase of the wastewater facilities planning study. He discussed the various options for wastewater treatment and disposal as well as nitrogen mitigation alternatives. He reviewed the alternatives analyzed in

the report, which include a "no-action" alternative and four action alternatives. He addressed questions about well injection and spray irrigation methods of wastewater disposal. Seth Wilkinson, the staff planner, explained the project review process. Ed Eichner reviewed the alternatives and the issues of the study. He noted Snug Harbor as being the most impacted portion of the West Falmouth Harbor system, because the treated wastewater effluent flows through the watershed of that subembayment. He stated that the high school should not be considered as a potential effluent disposal area, because it lies in the watershed to Long Pond, which is a major source of the town's public water supply. Public comments were given by Joe Costa of the Buzzard Bay Project, Ralph Vaccaro, Gilbert King, John Donohoe, Alan Fleer, Bill Barwell, and Gary Hayward.

A public hearing for the Draft Wastewater Facilities Plan / Draft Environmental Impact Report (DEIR) was held March 2, 2000 in Falmouth. Nate Weeks of Stearns & Wheler explained that the Draft Plan and Draft EIR are the third stage in the joint MEPA/CCC review process. He described the alternatives and reviewed their costs. He noted that Alternative #4 had received the highest initial rating, and that the Draft Plan recommended a slightly modified version of this option because it has the highest rating in their analysis for water quality improvement and cost. The subcommittee asked about the prioritization of connecting sections of town to the sewer system, with much concern about the Maravista section. Staff planner Seth Wilkinson reviewed the review process, and commended the town for its commitment to reducing nitrogen impacts in West Falmouth Harbor. Ed Eichner presented the staff technical comments. He explained the water quality studies ongoing for West Falmouth Harbor, the sources of its degradation, and means for improving the water quality. He noted that the town is seeking a Phase I waiver from DEP to allow them to proceed with designing the plant upgrades, and that staff recommends that the Commission support this waiver request. He noted that finding new discharge areas for treated wastewater would depend on what degree of water quality is considered acceptable for West Falmouth Harbor. Raymond Jack noted that the town is spending \$1.3M for the water quality studies and needs approval at their next Town Meeting for continued funding of these studies. He stated that Commission endorsement of the Draft EIR is crucial to continuing the project. General public comments were given by Robert McLaughlin, Dan Sheerer, George Hampson, Alan Fleer, Tony Williams, and Brian Howes stating their support of the draft plan and noting some issues that should be clarified in the final plan.

For the Final EIR, a public hearing was held March 14, 2001, in Falmouth. Nate Weeks of Stearns & Wheler gave a presentation that reviewed the project history and laid out the recommendations of the wastewater facilities plan. Staff planner Van Morrill explained that the subcommittee's comment letter on the Final EIR to MEPA will be sent on March 16th. Water resources scientist Ed Eichner presented the staff's technical comments on the Final EIR. He stated the staff's general recommendation for the Commission to endorse the Final EIR in its letter to MEPA, and mentioned some issues about which staff needs more information or details, including a timetable for connecting sections of town to the sewer system, and the need for more analysis on the direction of a contaminant plume coming from the town landfill. Frank Shephard mentioned that the review timeframe was constrained for this project, and that the Commission would not have a final decision before the town meeting of April 2nd. He mentioned that there will be flexibility in the Commission's review and continued dialogue with the town officials to provide them with workable conditions. Brian Dudley of the DEP commented on the need for a

plant upgrade and the progress that has been made in technical meetings over the past year. Ray Jack, the town utilities manager, stated that Falmouth faces many fiscal issues, of which the wastewater plant is only one. He noted that the estimated cost for upgrades is \$45 million. He read the full text of a letter from the Board of Selectmen chairman to the Secretary of Environmental Affairs, stating the town's need for 1.4 MGD of treatment capacity. Alan Fler of the town Planning Board and the citizen wastewater advisory group stated the need for a wastewater plant upgrade and reviewed the issue of total plant capacity. Brian Howes of SMAST explained the trend of declining water quality in Snug Harbor, and that the quality will continue to decline for several more years before any improvement results from the upgrade in wastewater treatment performance. Public comments were in favor of the facilities plan and noted some relevant issues to be addressed, including new sewer connections and water quality impacts. Public comments were made by George Hampson, Robert McLaughlin, John Ross, and Eric McLaughlin.

The public hearing for DRI review was held March 28, 2001 in Falmouth. The applicant's presentation was again provided by Nate Weeks of Stearns & Wheeler. He reviewed the issues that have arisen and been resolved during the planning study, including the proposed treatment capacity and nitrogen attenuation factors. Ed Eichner gave the water resources comments on the DRI review, and noted that no new information had been made since the Final EIR. He recommended that the subcommittee endorse the project to the full Commission, and noted that staff would hold meetings with the town to discuss the findings and conditions. Public officials who commented were Brian Dudley of DEP, Alan Fler of the town Planning Board, and Heather Harper, the assistant town administrator. General public comments were given by John Ross of the citizen advisory committee, Ralph Vaccaro, and George Hampson stating the need for water quality improvements in West Falmouth Harbor and the importance of implementing the Wastewater Plan as soon as possible.

JURISDICTION

The proposed Falmouth Wastewater Facilities Plan qualifies as a Development of Regional Impact (DRI) under Section 12 (i) of the Cape Cod Commission Act and under Commission regulations, which require DRI review for any proposed development project for which the Secretary of Environmental Affairs requires the preparation of an Environmental Impact Report under Sections 61-62(h) of Chapter 30 of the Massachusetts General Laws.

FINDINGS

The Commission has considered the application of the Town of Falmouth for the proposed Wastewater Facilities Plan. Based upon the consideration of the application and on the information presented in the public hearings and submitted for the record, the Commission makes the following findings pursuant to Sections 12 and 13 of the Act.

General

G1. The project is the Wastewater Facilities Plan for the town of Falmouth, as described in the Final Wastewater Facilities Plan / Final Environmental Impact Report of January 2001.

G2. The proposed project is consistent with Falmouth's zoning bylaws, as it is an existing wastewater treatment facility. The project is also consistent with the town's local comprehensive plan, and is not located within a District of Critical Planning Concern.

G3. As described in the Final EIR, the benefits of the Wastewater Facilities Plan include improvement of the water quality of West Falmouth Harbor through improved nitrogen reduction efficiency in the wastewater treatment process, and upgrade of the treatment plant's operating capacity for more parcels in downtown Falmouth and other areas of town.

Water Resources

WR1. The Town of Falmouth Wastewater Treatment Facility (WWTF) site is principally located within the subwatershed to Snug Harbor, which is part of the larger West Falmouth Harbor embayment. Based on average groundwater flow rates, it takes approximately seven years for wastewater discharged at the WWTF to reach West Falmouth Harbor.

WR2. The WWTF began discharging wastewater in October 1986. Total nitrogen concentration spikes measured by the Falmouth Pond Watchers seem to indicate the WWTF plume arrival in the Harbor during September 1994.

WR3. Water quality sampling conducted through the Falmouth Pond Watchers program and the Coalition for Buzzards Bay have detected overall increases in nitrogen concentrations in West Falmouth Harbor. Average total nitrogen concentrations have increased in the inner basins of the Harbor from 0.35 parts per million (ppm) during 1992-1993 to 0.43 ppm during 1995-1999 (SMAST, 2000).

WR4. Water quality sampling and ecosystem characterization completed by the University of Massachusetts – Dartmouth, School of Marine Science and Technology (SMAST) in March 2000 have confirmed the higher nitrogen concentrations, as well as documenting the detrimental ecosystem changes (*e.g.*, loss of eelgrass) associated with the excessive nitrogen loads. These changes are worst in Snug Harbor.

WR5. The SMAST study of February 2000 recommends “A nitrogen threshold of 0.35 (to possibly 0.37 mg N L⁻¹) within the waters of the inner Harbor basins (South Basin and Snug Harbor)”, which “should support the recovery of eelgrass and associated animal and plant communities throughout West Falmouth Harbor's sub-tidal basins.”

WR6. Nitrogen loading analyses of West Falmouth Harbor and its subwatersheds by the Cape Cod Commission under the Cape Cod Commission Coastal Embayment Project (1998) indicated that the subwatersheds to the Harbor have excessive nitrogen loads. Project findings indicate

that Snug Harbor is the most overloaded of the subwatersheds and that Oyster Pond and Oyster Pond/Harbor Head are also overloaded.

WR7. Minimum performance standards under section 2.1.1.2.C of the Regional Policy Plan (RPP) require that projects within watersheds to nitrogen overloaded embayments improve nitrogen loading and not exceed identified nitrogen loading standards.

WR8. Based on analysis completed by the town, an average annual total nitrogen concentration of 0.35 ppm would be attained in Snug Harbor if an annual average flow of 0.6 million gallons per day is discharged at the town WWTF site. An average annual total nitrogen concentration of 0.37 ppm would be attained if 1.0 MGD were discharged at the town WWTF site. These analyses are based on a number of assumptions developed from existing data and expected WWTF performance, including: 3 ppm total nitrogen in the effluent discharge at the WWTF, 20% nitrogen removal in the Mashapaquit Creek marsh, 45% nitrogen removal in the WWTF spray irrigation areas, and no nitrogen removal by the effluent infiltration beds. Some uncertainty exists in these and other data, but town representatives, Commission, state, and UMASS-D, SMAST have agreed that the analyses completed to date are an appropriate basis for design and discharge from the WWTF according to the conditions below.

WR9. The town has accepted a 0.37 ppm average annual total nitrogen limit in West Falmouth Harbor.

WR10. The town has proposed an upgrade of the WWTF, which would increase the WWTF capacity to 1.2 million gallons per day, decrease the average annual total nitrogen concentration to 3 parts per million, and have a state Groundwater Discharge Permit total nitrogen concentration limit of 10 ppm. WWTF discharge of 1.0 MGD at 3 ppm would result in an annual nitrogen load of 9,139 pounds.

WR11. The 1.2 MGD annual average effluent flow at the WWTF is projected in the FEIR in the following way:

- 0.56 MGD for existing services and infilling in existing service area,
- 0.01 MGD from Falmouth High School,
- 0.23 MGD from the portion of the West Falmouth Harbor watershed west of Rt. 28,
- 0.2 MGD from North Davis Straits and Scranton Ave.
- 0.2 MGD for reserve capacity

WR12. The April 2, 2001 Town Meeting approved a design capacity for the WWTF of 1.4 MGD, which includes 0.2 MGD to accommodate the Maravista section of town. The Board of Selectmen voted that the Maravista 0.2 MGD must be discharged outside of the West Falmouth Harbor watershed.

WR13. The town has recommended further work to address water quality in Oyster Pond in West Falmouth Harbor.

WR14. In order to attain the total nitrogen loading limits in West Falmouth Harbor, the town has assumed a number of wastewater management activities will occur, including regulatory changes

to define a sewer service area, establishing requirements for new connections, specifying limits on connections outside of the service area, establishing controls on flows from existing properties, and establishment of a nitrogen management district in the portion of the West Falmouth Harbor watershed east of Route 28.

WR15. A portion of the nitrogen load to West Falmouth Harbor is assumed in analyses to come from the town landfill and abandoned on-site septage lagoons. Characterization of the impacts of these sources has not been adequate to confirm or refute this assumption. Additional wells at appropriate locations, screened at appropriate depths, and sampled for appropriate constituents are required to clarify the impact of the landfill on the Harbor.

CONCLUSION

Based on the findings above, the Cape Cod Commission hereby concludes the following:

- The probable benefits of the project outweigh the probable detriments as described in Finding G3.
- The Wastewater Facilities Plan, as proposed, complies with the Commission's Regional Policy Plan (RPP) as described in Finding WR7.
- The project complies with local zoning and development bylaws as described in Finding G2.

The Commission hereby approves the application of the Town of Falmouth for the proposed Wastewater Facilities Plan as a Development of Regional Impact, provided the following conditions are met:

CONDITIONS

General

G1. This DRI decision is valid for 7 years. Local development permits may be issued pursuant hereto for a period of 7 years from the date of the written decision. The proposed project shall be constructed and implemented as described in the "Final Wastewater Facilities Plan" of January 2001.

G2. The applicant shall obtain all relevant state and local permits, as applicable, for the proposed project. Prior to the issuance of a certificate of occupancy or any other authorization to operate the facility upgrade, the applicant shall obtain a Certificate of Compliance from the Commission which states that condition WR-2 of this decision has been met.

G3. No development work, as the term "development" is defined in the Act, shall be undertaken until all appeal periods have elapsed or, if such an appeal has been filed, until all judicial proceedings have been completed.

G4. Failure to comply with all conditions stated herein, and with all related statutes and other regulatory measures, shall be deemed cause to revoke or modify this decision.

Water Resources

WR1. In order to limit average total nitrogen concentrations in West Falmouth Harbor to 0.37 ppm, effluent discharge from the WWTF shall be limited to an annual average flow of 1.0 MGD within the West Falmouth Harbor watershed.

WR2. Annual average wastewater flows at the town WWTF shall be limited to 1.2 MGD unless additional flows are approved by the Commission. Prior to the issuance of a Certificate of Compliance, the applicant shall ensure that this condition has been met.

WR3. Annual average wastewater flows at the WWTF site shall be limited to 0.6 MGD, which is equivalent to 0.35 ppm total nitrogen in the Harbor, until a schedule for sewerage within the West Falmouth Harbor watershed is approved by the Commission, DEP and MEPA. Attaining an appropriate balance between bringing additional wastewater flows from outside the Harbor watershed and treating equivalent flows within the watershed should be a key provision of the schedule to ensure that improvements in the WWTF nitrogen treatment are not negated by additional nitrogen loads. Use of the 0.6 MGD limit allows the connection of existing and future FEIR-projected flows within the existing service area (0.56 MGD), the high school (0.01 MGD), and 0.03 MGD of unaccounted flow.

WR4. WWTF effluent discharges greater than 1.0 MGD shall be discharged outside of the West Falmouth Harbor watershed. All new discharge sites shall meet the Regional Policy Plan minimum performance standards and shall be reviewed and approved by the Commission or its designee. The Commission strongly encourages the town to obtain and utilize sufficient discharge capacity outside of the watershed in order to attain the 0.35 ppm average annual total nitrogen concentration in West Falmouth Harbor and provide better certainty that the ecosystem will recover.

WR5. The town shall develop regulatory changes to ensure the establishment of a nitrogen management district in the West Falmouth Harbor watershed east of Route 28. These changes shall be reviewed and approved by the Commission or its designee for conformance with the nitrogen loading assumptions in the town's analyses.

WR6. Conditions 1 through 5 are based on analyses discussed in the above findings. The town may gather additional monitoring evidence to support revision of factors included in the original assessments. Some of the areas that could be monitored include, but are not limited to: marsh nitrogen attenuation, West Falmouth Harbor nitrogen concentrations, performance of the WWTF and on-site nitrogen reducing wastewater treatment systems, and landfill monitoring. Gathered evidence shall be of sufficient detail and over a sufficient time in order to establish variability. The Commission staff shall review and approve the validity and reliability of any presented evidence in consultation with the state Department of Environmental Protection and other appropriate agencies or organizations.

WR7. All monitoring data for the WWTF and landfill shall be submitted to the Commission on a yearly basis, commencing one year from the date of this decision.

The Cape Cod Commission hereby approves with conditions the application of the Town of Falmouth as a Development of Regional Impact pursuant to Sections 12 and 13 of the Act, c.716 of the Acts of 1989, as amended, for the proposed Wastewater Facilities Plan in the Town of Falmouth.

Frank Shephard
Frank Shephard
Cape Cod Commission chairman

5-10-01
Date

Commonwealth of Massachusetts

Barnstable, ss.

Subscribed and sworn to before me this 10th day of May, 2001.

Katharine L. Peters
Notary Public

