



CAPE COD COMMISSION

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DATE: March 29, 2001

TO: Keith Bergman, Town Manager
Town of Provincetown

FROM: Cape Cod Commission

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

APPLICANT: Town of Provincetown

PROJECT: ENF #96024
Provincetown Wastewater Management Facilities Plan

BOOK/PAGE: Book 1450, Page 818

DECISION OF THE CAPE COD COMMISSISON

SUMMARY

The Cape Cod Commission (Commission) hereby approves with conditions the application of the Town of Provincetown 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 Management Facilities Plan. The decision is rendered pursuant to a vote of the Commission on March 29, 2001.

PROJECT DESCRIPTION

The Project's purpose is to develop a wastewater management plan to address and resolve the situation of failing septic systems in the town. The need for a wastewater management plan was precipitated by recent changes in Title 5 septic system regulations promulgated by the Massachusetts Department of Environmental Protection (DEP). The new Title 5 regulations have had a profound impact on Provincetown. Compliance with these revised septic rules is very difficult, due to the downtown area being densely developed with little or no room for on-site septic systems, the groundwater table being relatively close to the land surface, and the downtown's proximity to the harbor and beaches. In order to maintain the town's unique historic and community character, in 1996 the town initiated a wastewater management facilities planning study, with the purpose of reaching a recommended plan for improving the wastewater

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collection system. The town hired environmental engineering consultants Stearns & Wheler, LLC, to perform this study, and later hired another firm, Environmental Partners Group, Inc., to do groundwater modeling, and prepare specific treatment system plans.

Stearns & Wheler prepared the project scoping, filed all documents with the Executive Office of Environmental Affairs (EOEA) and the Cape Cod Commission; then completed a Needs Assessment report in February 1997, followed by an Alternatives Screening and Analysis in August 1997. Public hearings and participation have been incorporated at each step of the process. A Draft Environmental Impact Report (DEIR) was completed in October 2000; a public hearing was held in December 2000, and was certified by the EOEA on December 15, 2000. The Final Environmental Impact Report was released in January 2001, a public hearing was held in February 2001, and the Final EIR was certified by the Secretary of EOEA on March 16, 2001.

The recommended plan that came out of the study is for the town to build a centralized wastewater collection and treatment system. Connections to this system are concentrated in the area of town closest to Provincetown Harbor, with mandatory connections for properties identified as not being able to meet the new Title 5 requirements. This will serve a pre-selected set of houses and businesses in a defined downtown area. A wastewater treatment facility (WWTF) is proposed to be located at the town's old burn dump, located on the north side of Route 6. The sewer system would involve the construction of a wastewater collection system in the designated sewer service area, treatment at WWTF having a design flow capacity of 500,000 gallons per day (expandable to 575,000 gpd), and discharge of the effluent in several leaching fields along the Route 6 corridor.

PROCEDURAL HISTORY

On September 16, 1996, Stearns & Wheler, LLC, submitted to the Commission and to the EOEA the DRI/Joint Review Process application for the Town of Provincetown, pursuant to the Memorandum of Understanding between the Cape Cod Commission and the EOEA, designed to address the regulatory concerns of both agencies, and expedite project review.

A public hearing was held October 2, 1996, in Provincetown. The Secretary of the EOEA certified the project as a Major and Complicated Project on October 18, 1996. An extension agreement for a Commission decision was signed by the applicant on October 23, 1996, extending to November 7, 1997. On February 26, 1997, the Commission received the Phase I report, the Needs Assessment Report; a public hearing was held for Phase I on March 19, 1997, in Provincetown; the EOEA secretary certified it on April 4, 1997. The Commission received the Phase II report, Draft Alternatives Screening Analysis Report on August 15, 1997; a public subcommittee meeting was held September 17, 1997; the EOEA certified it on October 1, 1997. An extension agreement for the Commission decision was signed on May 11, 1998, until June 11, 1999. A third extension agreement was signed April 28, 1999, until June 16, 2000. On April 27, 2000, the town signed another extension agreement, effective until June 22, 2001. The Commission received the Phase III report, Draft Wastewater Facilities Plan and Environmental Impact Report (DEIR), on November 6, 2000; a public hearing was held December 6, 2000; the EOEA certified it on December 15, 2000. The Final Wastewater Facilities Plan and

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Environmental Impact Report (FEIR) was received on February 7, 2001; a public hearing was held on February 28, 2001; the EOEA Secretary certified the project on March 16, 2001. A public hearing for DRI review was held on March 22, 2001. After the hearing, the subcommittee voted, by 3-1 in favor, to recommend an approval with conditions to the full Commission. All public hearings were duly noticed.

On March 29, 2001, the Commission approved the project with conditions specified in this written decision.

MATERIALS SUBMITTED FOR THE RECORD

From the Applicant

- Application for DRI and joint Commission/MEPA review, from Stearns & Wheler, LLC, on behalf of Provincetown, received September 16, 1996.
- Letter from Stearns & Wheler, LLC, to Commission planner, giving names of Provincetown Wastewater Citizens Advisory Committee, received September 25, 1996
- Letter certifying the Provincetown wastewater plan as a Major and Complicated Project from Secretary of EOEA, received November 12, 1996.
- Needs Assessment Report received from Stearns & Wheler, LLC, February 26, 1997.
- Draft Alternatives Screening Analysis Report received from Stearns & Wheler, LLC, August 15, 1997
- Memorandum reviewing MEPA certificate and October 1997 progress meeting, from Stearns & Wheler, LLC
- Hydrogeologic Work Plan for Site 31, received from Stearns & Wheler, LLC, January 15, 1998.
- Draft Wastewater Facilities Plan and Environmental Impact Report, from Stearns & Wheler, LLC, received November 6, 2000.
- Final Wastewater Facilities Plan and Environmental Impact Report, from Stearns & Wheler, LLC, received February 7, 2001
- Copies of Rare Species Habitat Assessment (Draft) and Summary of meeting discussion, by Mario DiGregorio of Horsley & Witten, Inc., received February 8, 2001.
- Additional information for DRI review, from Environmental Partners Group, Inc., received March 14, 2001
- Copies of project overview presentation slides, by Environmental Partners Group, Inc., March 22, 2001

From the Cape Cod Commission

- Staff report on Environmental Notification Form (ENF), September 26, 1996
- Comment letter to MEPA on ENF, October 15, 1996
- Staff report on Needs Assessment Report, March 16, 1997
- Comment letter to MEPA on Needs Assessment Report, March 28, 1997
- Staff report on Draft Alternatives Screening and Analysis Report (DASAR), September 14, 1997
- Comment letter to MEPA on DASAR, September 24, 1997

- Letter from Tom Cambareri and Ed Eichner, to Wayne Perry of Stearns & Wheler, sent April 14, 1998
- Staff report on Draft EIR, December 1, 2000
- Comment letter to MEPA on Draft EIR, December 8, 2000
- Letter to Margret Gustavsen, Provincetown resident, in response to e-mail message of January 17, 2001, sent January 31, 2001
- Letter to Keith Bergman, Provincetown town manager, in response to memorandum of January 5, 2001, sent January 22, 2001
- Staff report on Final EIR, February 23, 2001
- Comment letter to MEPA on Final EIR, March 8, 2001
- Staff report on DRI material, March 20, 2001

From State or Local officials

- Certificate from the Secretary of Environmental Affairs on the Phase I – Needs Assessment Report, received April 4, 1997
- Certificate from the Secretary of Environmental Affairs on the Phase II - Draft Alternatives Screening and Analysis Report, received October 1, 1997
- Certificate from the Secretary of Environmental Affairs on the Draft Environmental Impact Report, received December 20, 2000
- Letter from Provincetown Board of Health, dated February 28, 2001
- Memorandum from Keith Bergman, Provincetown town manager, dated January 5, 2001
- Certificate from the Secretary of Environmental Affairs on the Final Environmental Impact Report, received March 21, 2001
- Letter from Betty Steele-Jeffers, chairman of Provincetown Board of Selectmen, dated March 22, 2001

From other parties

- Letter from Carla Anderson, received March 19, 1997
- Copy of letter from National Park Service, Cape Cod National Seashore superintendent, to Keith Bergman, Provincetown town manager, dated April 10, 1998
- Letter from Robin Evans, received May 10, 2000
- Packet of photographs and memoranda copies, compiled by Peter Souza, received December 6, 2000
- Letter and information about erosion control, from Peter Souza, received December 7, 2000
- Letter from Bill Fitzpatrick, received December 11, 2000
- Letter from Henry Evans, received December 27, 2000
- Letter, photos, and information on dump closures, from Peter Souza, dated January 11, 2001
- Letter from Robin Evans, dated January 11, 2001
- Message (e-mail) from Margret Gustavsen, received January 17, 2001
- Letter from Provincetown Environmental Action Coalition (PEAC), received January 17, 2001
- Message (e-mail) from Peter Macara, received February 5, 2001
- Letter from John Ciluzzi, received February 13, 2001
- Letter from Bill Fitzpatrick, received February 19, 2001
- Letter from Scott Alden, received February 20, 2001
- Letter from Jackie Freitas, dated February 24, 2001

- Letter from Carl Brievogel, received February 26, 2001
- Letter from Tar Evans, received February 28, 2001
- Letter from Barbara Rushmore, received February 28, 2001
- Letter from Betty Steele-Jeffers, received February 28, 2001
- Letter from Jackie Freitas, dated March 1, 2001
- Letter from Meryl Hiller, received March 5, 2001
- Message (e-mail) from Margret Gustavsen, received March 6, 2001
- Copy of letter to DEP requesting Superseding Order of Conditions, from Peter Souza, received March 6, 2001
- Letter from Elena Curtis Hall, received March 7, 2001
- Letter from Lucille Plante, received March 7, 2001
- Letter from Jaima Kelley, received March 19, 2001
- Letter from Michael Rogovsky and Mark Mello, received March 20, 2001
- Letter from Jackie Freitas, received March 22, 2001
- Letter from Raymond & Grace Rizk, received March 22, 2001
- Letter from Constance Black, received March 22, 2001
- Letter from Chris Busa, received March 22, 2001
- Letter from Betty Steele-Jeffers, received March 22, 2001
- Letter from Darin Janoplis, received March 23, 2001

The application and notices of public hearings relative thereto, the Commission staff's 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

Five duly-noticed public hearings and meetings were held during the review process for the Provincetown wastewater management facilities plan.

The first public hearing was held October 2, 1996, at Provincetown Town Hall, to review the draft Scope of Services and Environmental Notification Form that Stearns & Wheler prepared. The project engineer for Stearns & Wheler, Wayne Perry, noted that a specific project proposal had not been defined at that point. The Citizens Advisory Committee co-chair, Cheryl Andrews, described the committee and the work they had completed to date, which included a review of different technology options for wastewater treatment. A staff person of the MEPA agency, Dick Foster, stated that the project is somewhat unusual for MEPA review because of its lack of definition at the time. He reviewed the MEPA review process and the reports under review: a Needs Assessment report; Alternatives Screening report; Draft EIR, and Final EIR. He noted that the scope is satisfactory for this phase of the project, and that there are no time deadlines to meet. He explained how the MEPA review is different from DRI review, and how the two are coordinated. The Commission staff planner, Sarah Korjeff, reviewed the issues of concern to the Commission. Other comments and discussion focussed on the towns water consumption patterns, growth controls, and the project review timeline.

The second public hearing was for the Needs Assessment report, on March 19, 1997, at Provincetown Town Hall. Wayne Perry and Nate Weeks, of Stearns & Wheler, explained the contents and findings of the Needs Assessment report, including floodplains, water-use history, and other limiting factors of wastewater treatment. They identified an area of town needing improved wastewater facilities, consisting of the older areas in the "downtown" core. The downtown is dominated by small lots, high-volume water users, and failed septic systems, and is close to wetlands and vulnerable to shoreline flooding. Mr. Perry noted that many parcels are less than ten feet above sea level, and would be required to install raised septic systems to comply with Title 5. This causes great concern for the impact on community character. The Commission's water resources specialist, Ed Eichner, stated that the Needs Assessment was done well.

A public subcommittee meeting for the Draft Alternatives Screening Analysis Report was held on September 17, 1997, in Provincetown. Nate Weeks of Stearns & Wheler described the four alternatives developed to date (A,B,C,D) and the potential for a fifth option (E), reviewed the downtown area of concern, and discussed the treatment technology options. Sarah Korjeff of the Commission staff suggested that an Alternative E be explored further, as the first four each had potential problems. Alix Ritchie of the subcommittee also noted that permits and approvals from the Mass. Highway Dept. and the National Park Service would be necessary in several of the alternatives mentioned. Discussion occurred about the relative merits of a single treatment plant versus multiple facilities, as well as on-site septic systems. Ms. Ritchie inquired about land area requirements for a treatment facility, about costs, odor, and variability in wastewater flow. George Heufelder, of the county health department, noted that phasing in of a central sewer system would still leave some septic systems in need of replacement.

A public hearing for the Draft Wastewater Facilities Plan / Draft Environmental Impact Report (DEIR) was held on December 6, 2000, in Provincetown. The Draft Plan and DEIR proposed the plan that calls for a wastewater treatment plant, located at the Old Burn Dump, and leaching fields along Route 6. Town manager Keith Bergman explained the need and background for the treatment plant, including the town's being chosen to receive state revolving funds at no interest. Wayne Perry of Stearns & Wheler, along with Mark White and Paul Gabriel of Environmental Partners Group (EPG) gave presentations about the alternative sites, the chosen site, and technical issues of wastewater treatment and disposal. They discussed the service area, treatment technology (Sequencing Batch Reactors), and leaching areas. Ed Eichner and Heather McElroy presented staff comments on the Draft EIR, including the concerns about mounding groundwater levels, rare species habitat, and wetland buffers. Statements in support of the plan came from Jon Sinaiko and Cheryl Andrews of the citizens advisory group, Brian Dudley of the DEP, George Heufelder of the county health department, along with John Bennett, Paul Redland, and Chris Snow. Opposition to the siting of the treatment plant was stated by several other citizens, including Peter Souza, Sheila Benzer, Barbara Rushmore, Mary Jo Avellar, and Connie Black. After the hearing adjourned, the subcommittee discussed the Commission comments to MEPA, to be submitted on December 8th.

For the Final EIR, a public hearing was held February 28, 2001, in Provincetown. The Town Manager, Keith Bergman, stated that in order to get state funds at 0% interest, the project must be approved at the April town meeting. He presented copies of commitment forms of over 500

property owners to connect to the sewer system in the future, and copies of consent orders of 70 owners who have put money in escrow to connect to the system. Mark White and Paul Gabriel from EPG presented a project overview, giving the initial wastewater volume capacity, and potential for expansion. Mr. White described the selected site for the treatment facility, and compared it with the other options; he reviewed the effluent discharge areas, and the range of expected groundwater impacts from the effluent. Mario DiGregorio, a senior wetland scientist, presented the rare species habitat situation, noting the species of concern, and which species are known to exist in the wetlands surrounding the proposed facility site. He stated that there would be no negative impacts to the habitats from the treatment plant and leaching areas. A monitoring program for wetland species was described. Questions were asked about groundwater modeling and effluent discharge tracks. Ed Eichner and Heather McElroy of the Commission staff commented on the proposed monitoring programs needed, noted the need for the state Natural Heritage Endangered Species Program (NHESP) to report on rare species habitat, and recommended that the subcommittee endorse the Final EIR in the letter to MEPA. They also discussed the burn dump capping procedure, which is not under Commission review. Statements from the public were made about the project, many in favor of sewerage (including Betty Steele-Jeffers, David Atkinson, Michele Couture, Jon Sinaiko), but several continuing to oppose the selected site (including Peter Souza, Sheila Benzer, Connie Black, and Jackie Freitas). Clarification was sought by subcommittee member Joe Travelo, and given by Keith Bergman, about the town's designated use of the parcel of which the burn dump is a part. Upon adjourning the hearing, the subcommittee held a meeting to discuss comments to include in the letter to MEPA. The issues to be included were those of rare species habitat, and site selection.

The public hearing for DRI review was held March 22, 2001, in Provincetown. Keith Bergman stated that the EOE has certified the project, and that the burn dump site is the most appropriate site for the project, meeting all regulatory requirements. He noted that the town has recommended Metcalf & Eddy as the design/build/operate vendor of the wastewater facility. Mark White of EPG told the subcommittee about recent meetings between the applicant and Commission staff to resolve concerns about monitoring programs, dump capping, rare species habitat, construction impacts, and upland heath vegetation. He noted that the expected project lifespan is 20 years, and that monitoring will be done for at least 10 years. Van Morrill of Commission staff noted the staff's recommendation to approve the project with conditions. Ed Eichner and Heather McElroy gave details of the conditions, which would include a long-term monitoring plan of wetlands, rare species, and water levels. Ms. McElroy stated that the burn dump capping plan is satisfactory, but noted that care should be taken to avoid spreading the seeds of invasive plant species, which presently exist on the site. Public comments included a statement by Betty Steele-Jeffers that the town has pursued a sewer system many times in past, but has never progressed to this stage. Michele Couture of the Board of Health noted its support of the proposed project. The DEP representative, Brian Dudley, noted that on-site septic systems have chronically failed for many years. Jon Sinaiko of the citizens advisory committee explained how the wastewater facility is different than the transfer station proposed for the same site several years ago. Sheila Benzer wondered if wastewater effluent would flow near the surface of nearby cemeteries; Paul Gabriel of EPG stated that groundwater flow is sufficiently below land surface and grave depths. The town's legal counsel, John Giorgio, addressed questions about the transfer station site option; he noted that much of it is within federal land, and would require an act of Congress to allow it, which would take a year or more to complete.

He noted that the Park Service does not allow waste treatment facilities on its land. After the hearing adjourned, the subcommittee discussed the project. They voted 3-1 in favor of recommending approval of the project, with conditions, to the full Commission. They also stated that all building design plans would go to the Regulatory Committee for approval.

JURISDICTION

The proposed Provincetown Wastewater Facilities Plan qualifies as a Development of Regional Impact (DRI) under Section 12 (i) of the Act, which requires DRI review for "any proposed development project for which the secretary of environmental affairs requires the preparation of an environmental impact report". The project requires 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 Provincetown for the proposed wastewater treatment 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 a wastewater management facilities plan for the town of Provincetown, as described in the **Final Wastewater Facilities Plan and Final Environmental Impact Report, in two volumes, dated January 2001. Volume 1 was produced by Stearns & Wheler, LLC; Volume 2 is comprised of the Preliminary Design Report for a wastewater treatment system, produced by Environmental Partners Group, Inc.** The plan recommends the construction of a wastewater treatment plant, a sewerage collection system, and effluent discharge in leaching fields. The treatment plant is to be located at the town's old burn dump, on Route 6, as shown on Figure 1 of the **"Proposed Wastewater Facilities Plan, Town of Provincetown, Preliminary Design Report"**.

G2. The proposed development is consistent with Provincetown's zoning bylaws, as it is in a Zone "M" municipal district, permitted for any municipal use. It is also consistent with the town's local comprehensive plan.

G3. As described in the Final EIR, the probable benefits of the plan include greater protection of human health and the environment in the downtown area through a more effective wastewater collection and treatment system, and preservation of community character by avoiding the need to build raised septic systems on numerous parcels. Probable detriments include construction related impacts to wetlands and wetland buffer zones. The probable benefits are greater than the probable detriments.

Natural Resources

NR1. The project site subject to Commission jurisdiction includes only that portion of the remediated and capped burn dump site which will support the proposed wastewater treatment plant and associated facilities (i.e. stormwater management systems, paving, fencing); the area of the leaching field sites identified as areas C, D, E, G, H, and I on plan titled "Town of Provincetown Preliminary Wastewater Facilities Design, Key Plan 2 – Wastewater Disposal Areas", prepared by Environmental Partners Group, Inc., of October 2000, and associated utilities infrastructure and construction footprint; the area of sewer main installation and associated construction footprint.

NR2. The project site is located within a Significant Natural Resource Area as defined by the Regional Policy Plan due to the presence of estimated rare species habitat. The Natural Heritage Atlas, 2000 – 2001 Edition, identifies the project area as both a priority habitat of state listed rare species, and as estimated habitat of rare wildlife.

NR3. The proponent has submitted a natural resources inventory (NRI), prepared by Horsley & Witten Inc. consistent with the requirements of the RPP. The NRI identifies three distinct floral communities within the project area, including mixed oak/pine woodlands, wetlands (including shrub swamps and quaking bogs), and coastal dwarf heath/sandplain grassland.

NR4. The RPP prohibits development which adversely impacts either rare species or their habitat. The Natural Heritage and Endangered Species Program (NHESP) has indicated that the project site lies within estimated habitat for 20 state listed animal species and 8 state listed plant species. The number of species whose habitat is actually found within the project site is likely much fewer than 20 animal and 8 plant species. According to the NRI, only broom crowberry (*Corema conradii*) and northern parula (*Parula Americana*) were actually observed on the site during the natural resource inventory. In addition, the actual site conditions contain habitat for eastern box turtle (*Terrapene carolina*), spotted turtle (*Clemmys guttata*), and the eastern spadefoot toad (*Scaphiopus holbrookii*). According to a letter submitted by Mario DiGregorio of Horsley and Witten to Mark White of Environmental Partners Group dated February 8, 2001, the site may also contain habitat for seven state listed moth species and two state listed floral species. As of the date of this decision, NHESP has not reviewed construction drawings for the leaching fields or associated utilities infrastructure, nor have they reviewed construction drawings for the treatment plant facility and associated infrastructure.

NR5. While remediation and capping of the Old Burn Dump site is not subject to Commission review, aspects of the capping work have been the subject of concern as the work is occurring within the 100 ft buffer to wetlands, and immediately adjacent to habitat for three state listed species; spotted turtle (*Clemmys guttata*), the chain fern borer moth (*Papaipema stenocelis*), and the water-willow stem borer moth (*Papaipema sulphurata*). According to a January 29, 2001 letter from NHESP commenting on the proposed remediation and capping of the Old Burn Dump site, NHESP has indicated that the proposed erosion control plan, together with construction oversight by an independent environmental monitor, should adequately protect the wetland habitat for rare wildlife on this site.

NR6. The NRI indicates that while all wetlands with at least six inches of standing water were evaluated for potential vernal pools, no obligate vernal pool species were identified during the site visits.

NR7. According to the NRI, the project site contains 13 wetlands large enough to qualify for protection under the RPP. These wetlands are identified on the plan titled "Town of Provincetown Preliminary Wastewater Facilities Design, Wetland Locations", prepared by Environmental Partners Group, Inc., of October 2000. The RPP requires that all development provide a 100 ft undisturbed buffer to wetlands; though the RPP makes exception for the installation of utility lines (such as sewer lines) in wetland buffers where there is no alternative and where the disturbed buffer is restored. The proposed treatment plant and associated pavement and fencing is located outside of the 100-foot buffer to wetlands, as shown in the "Town of Provincetown Preliminary Wastewater Facilities Design, Wetland Locations", prepared by Environmental Partners Group, Inc., of October 2000. The proposed leaching fields C, D, E, H, and I are also located outside of the 100 ft buffer to wetlands.

NR8. Leaching field G, located within the Rt. 6 median strip, is partially located within the 100 ft buffer to wetlands. However, as this leaching site is isolated from wetlands to the south by the westbound lane of Rt. 6 (at this location the lane actually faces east), the Commission finds that siting a small portion of leaching field G within the 100 ft buffer is not more detrimental to the wetlands to the south than would be allowable under MPS 2.3.1.2.

NR9. The treatment plant and leaching fields are proposed in proximity to quaking bogs (wetland areas A and H), a unique resource on Cape Cod, and a conservation target according to the NHESP. Bogs are very vulnerable to changes in water chemistry or water level (particularly drawdown), according to NHESP.

NR10. The NRI identifies an area of coastal dwarf heath/sandplain grassland within proposed leaching site H. The plan titled "Wastewater Disposal Area H – Approximate Location of Coastal Dwarf Heath Communities" shows the location of this vegetative community in relation to the proposed leaching site. Coastal dwarf heath and sandplain grasslands are considered globally imperiled natural communities, according to the NHESP. The greatest effort should be made to protect and/or minimize impacts to this unusual resource, consistent with MPS 2.4.1.1 and 2.4.1.2. At the time of this decision the method of protecting, relocating, or mitigating impacts to this resource had not been determined.

NR11. According to the NRI, the state listed broom crowberry colony identified onsite will not be disturbed as a result of project development. This is consistent with the requirements of MPS 2.4.1.4.

NR12. Section 4.0 of the proponent's Plant and Wildlife Habitat Assessment, as presented in the Draft EIR, discusses a design hierarchy for minimizing impacts to sensitive plant and animal habitat. This hierarchy prescribes first *Avoidance*, second *Minimization*, third *Restoration and/or Replication*. This design hierarchy is largely consistent with the interests of the RPP, particularly MPS 2.3.1.3, 2.4.1.1, 2.4.1.2, and 2.4.1.3. Impacts which are not permitted, and therefore are exceptions to this design hierarchy, are adverse impacts to rare species or their habitat, and

alterations to wetlands or within 100 ft of wetlands (except where the buffer to wetlands is already altered or where there is no feasible alternative to the installation of utility lines in these areas, consistent with MPS 2.3.1.2 and 2.3.1.3). Wetland creation or replication is specifically not permitted as mitigation for impacts to wetlands.

NR13. This project is proposed in proximity to highly sensitive, unusual, and/or rare species habitats. The capping of the Old Burn Dump will, by its nature, remove existing vegetation and disturb soils — an ideal environment for the establishment of invasive species. Every effort should be made to reduce the risk of spreading invasive species, either those present on the site (*Polygonum cuspidatum*), or those which may be introduced on construction equipment working on the site. Spread of the seed and/or the root crowns of Japanese knotweed (*Polygonum cuspidatum*) into disturbed areas should be avoided. This species is extremely hardy and aggressive, and may pose a threat to the viability of the burn dump cap if not effectively eliminated from the site prior to capping.

NR14. The Commission strongly supports the Provincetown Conservation Commission's recommendation in their February 22, 2001, Order of Conditions to permanently protect approximately 40 acres of the 47.7 acre Old Burn Dump parcel for conservation purposes. The permanent conservation of this biologically sensitive and unusual site will benefit the community and the region.

Water Resources

WR1. The Town of Provincetown has conducted numerous public hearings, meetings, and workshops to educate and involve the public in the development of the Facilities Plan, including the siting of the treatment plant and its leachfields. This process has included the creation of a Citizens Advisory Committee, public forums, mailings to property owners, and active coverage in local newspapers.

WR2. The Facilities Plan contains a wastewater management plan, including the creation of a sewer area and plans for the appropriate maintenance and upgrades for all wastewater systems within the town. As part of the management plan, criteria for the connection of properties to the sewer within the sewer area were developed and citizens were given options to connect for properties where standard Title 5 systems could be located. Special state legislation had to be passed to allow this "checkerboard" approach.

WR3. The Old Burn Dump site is the selected location for the wastewater treatment facility, as noted in the **Final Wastewater Facilities Plan / Final EIR, prepared by Stearns & Wheler, LLC, dated January 2001.**

WR4. The wastewater treatment facility will have a treatment capacity of 500,000 gallons per day (gpd) with a potential expansion to 575,000 gpd, as noted in the **Final Wastewater Facilities Plan / Final EIR, prepared by Stearns & Wheler, LLC, dated January 2001.**

WR5. The leaching facilities for discharge of treated effluent from the wastewater treatment facility are located along Route 6 and are designated Areas C, D, E, G, H, and I, as noted in the

Final Wastewater Facilities Plan / Final EIR, prepared by Stearns & Wheler, LLC, dated January 2001 Special state legislation had to be passed to allow discharge in the state highway layout.

WR6. The leaching facilities will have a discharge capacity of 750,000 gpd with demonstrated capability to accommodate 863,000 gpd, as noted in the **Final Wastewater Facilities Plan / Final EIR, prepared by Stearns & Wheler, LLC, dated January 2001.**

WR7. Analyses completed by the town indicate that the discharge from these leaching areas will flow directly toward Provincetown Harbor and will not have water quality impacts on nearby ponds and wetlands. The town has proposed a water quality monitoring program for inclusion in the wastewater facility's state Groundwater Discharge Permit (GWDP) to assist in confirming the analyses. All GWDPs include a water quality monitoring program.

WR8. Analyses completed by the town indicate that the discharge from the leaching areas may cause water level increases in adjacent surface waters, coincident groundwater, and nearby wetlands. These analyses indicate the increases are within the same range regularly observed at these resources, but may occur during different periods of the year than normal. The town has proposed a water level monitoring program for inclusion in the facility's GWDP.

WR9. The town has also proposed a vegetative monitoring program in the GWDP to evaluate potential impacts, if any on the plant and animal communities in the wetlands near the areas indicated to observe the maximum potential water level increases.

WR10. Leaching facilities in Area D are proposed to be located within 300 feet of Duck Pond. Groundwater analyses completed by the town show this area is not within the Fresh Water Recharge Area to Duck Pond.

WR11. Most of the developed area of Provincetown is located within the Marine Water Recharge Area to Provincetown Harbor. Analyses indicate that due to the relatively high tidal range and Provincetown Harbor's relatively large opening to Cape Cod Bay that nitrogen loading from existing and future development within the town should not be a concern to the ecological integrity of the Harbor. Town-wide average annual nitrogen loads to the Harbor from wastewater would be reduced by approximately 50% if the treatment plant averages 5 milligrams per liter of total nitrogen concentration in its discharge.

WR12. Leaching field Area E has an extensive amount of trash and refuse on the surface and possibly below the surface. In order to make that area a functioning leaching area, all trash will need to be removed.

Historic Preservation / Community Character

HP1. In order to comply with the state's revised septic system regulations (Title 5), many land parcels in the downtown Provincetown core area would have to install raised septic tanks and leaching fields above the land surface, which would detract from the visual quality and character of the downtown area.

HP2. In their comments on the Draft EIR, dated December 8, 2000, Massachusetts Historical Commission (MHC) determined that the proposed project would not have a negative impact on historic resources within the Provincetown National Register Historic District.

HP3. In both their Draft EIR and Final EIR comments, dated March 9, 2001, MHC stated that undisturbed areas proposed for subsurface effluent disposal may be archaeologically sensitive and are likely to contain archaeological sites associated with the Native American occupation of the Provincetown area. Without further information, MHC is unable to determine what effect the proposed subsurface effluent disposal facilities may have on archaeological resources. MHC has requested the opportunity to review detailed project plans and current original photographs of the proposed disposal areas.

HP4. The applicant has committed to further consultation with MHC regarding the potentially archaeologically sensitive nature of the proposed effluent disposal areas in the FEIR (Chapter 4, page 20). In order to confirm that the project is consistent with RPP Minimum Performance Standard 6.1.3 (protection of archaeological resources), MHC must determine whether the area is archaeologically sensitive, and whether significant archaeological resources are located on the project site. If significant archaeological resources are identified on the project site, the project must be configured so as to maintain and/or enhance those resources.

HP5. A construction of a sewage treatment plant and clearing of vegetation for leaching fields might have detrimental impacts to community character along Route 6 and adjacent properties.

Transportation

T1. Based on information provided in the Final EIR, the wastewater facility is expected to generate 10 vehicle trips per day. No regional transportation impacts are expected.

CONCLUSION

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

- The benefits of the project outweigh the detriments resulting from development; the project provides a better wastewater collection system for the town in terms of long-term human and environmental health, and preserves the town's community character.
- The project as proposed complies with the Commission's Regional Policy Plan (RPP).
- The project complies with local zoning and development bylaws.

The Commission hereby approves the application of the Town of Provincetown for the proposed Wastewater Treatment Facility as a Development of Regional Impact, provided the following conditions are met.

CONDITIONS

General

G1. The applicant shall obtain a partial Certificate of Compliance prior to applying for a building permit. The applicant shall obtain a final Certificate of Compliance prior to issuance of a certificate of occupancy or any other authorization to operate the facility.

G2. Prior to the issuance of a partial Certificate of Compliance, the final building, lighting, and leaching-field area construction drawings shall be submitted to the Cape Cod Commission for approval. All conditions, unless ongoing, shall be completed prior to the issuance of a final certificate of compliance.

G3. Prior to issuance of a building permit for any phase of proposed construction, the applicant shall submit final plans as approved by local boards for review by Commission staff to determine their consistency with Section 7 of the Commission's Administrative Regulations, "Modifications to Approved DRI's".

G4. This DRI decision is valid for 7 years from the date of the Commission vote.

G5. The applicant shall forward to the Commission copies of any and all permits and approvals issued in relation to this project and issued subsequent to this decision.

G6. 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. No development work, as the term "development" is defined in the Act, shall be undertaken until appeals periods have elapsed, or, if such an appeal has been filed, until all judicial proceedings have been completed.

G7. The applicant shall notify the Commission at least 30 days before seeking a partial or final Certificate of Compliance. Commission staff shall complete an inspection under this condition within seven business days of such notification and inform the applicant in writing of any deficiencies or corrections needed. The applicant understands that the Commission has no obligation to issue a Certificate of Compliance unless all conditions are complied with or secured consistent with this decision. The applicant agrees to allow Commission staff to enter onto the property that is the subject of this decision for the purpose of determining whether the conditions in the decision are met.

Natural Resources

NR1. As the design development of all construction associated with this project proceeds, the design hierarchy as referenced and defined in finding NR12 (above) shall be employed. Prior to issuance of a partial Certificate of Compliance, Commission staff shall review and approve all final construction drawings for this project, consistent with the findings and conditions herein.

NR2. Prior to issuance of a **partial Certificate of Compliance**, the proponent shall submit construction drawings to the Cape Cod Commission and to the state's Natural Heritage and Endangered Species Program (NHESP) for all proposed work which is located within the following **areas**: estimated habitat of rare wildlife and priority habitat of state listed rare species, as mapped by the "Natural Heritage Atlas, 2000 – 2001 Edition"; **wetlands**; 100 ft of wetlands; and leaching field Area H.

NR3. Following the submission of construction drawings and **prior to the issuance of a partial Certificate of Compliance**, only work found by NHESP and Commission staff not to have adverse impacts on the habitat of local populations of rare wildlife and plants shall be permitted to proceed, consistent with MPS 2.4.1.4. Also prior to issuance of a partial Certificate of Compliance, the proponent shall submit a copy of written comments from NHESP making a finding of no adverse impact to rare species for the entire project site, or for each of the proposed construction sites individually.

NR4. **Following Commission staff review of final construction drawings, following the submission of NHESP's comments on potential impacts to rare species habitat, and prior to the issuance of a partial Certificate of Compliance, the Regulatory Committee of the Commission shall determine whether to require the presence of an Environmental Monitor, and for what portions of the project construction, and determine the specific duties of the Environmental Monitor. The independent Environmental Monitor shall be employed at the proponent's expense, to observe that best management practices are employed to minimize plant and habitat disturbance during construction of the treatment plant and leaching fields. The duties of the Environmental Monitor, if deemed necessary, shall include monitoring of construction activities and erosion control in proximity to wetlands and wetland buffers, and/or monitoring for the presence of rare species moving through the areas of construction, and/or other monitoring duties as requested by the NHESP.**

NR5. While the Commission has not reviewed the capping of the burn dump, the Commission strongly recommends implementation of the design hierarchy referenced and defined in finding NR12 during the site consolidation, remediation, and capping of the Old Burn Dump. Specifically, the Commission recommends a clearing and construction protocol which moves in stages, working from the top of the dump down the sides, and clearing and removing only the minimum material necessary in order to achieve the requirements of the Massachusetts Contingency Plan (MCP). Specifically, the burn dump site should not be "clear-cut" or entirely devegetated prior to site excavation. Every effort should be made to retain large standing trees, and existing shrubby and herbaceous vegetation which presently provides wildlife habitat.

In addition, the Commission strongly recommends the implementation of a plan for the management of invasive species both on the site presently (*Polygonum cuspidatum*), and for the possible introduction of invasive species from construction equipment working onsite.

NR6. Construction of the treatment plant and associated facilities (pavement, parking, fencing, etc.) shall proceed as proposed on the plan titled "Town of Provincetown Preliminary Wastewater Facilities Design, Old Burn Dump Proposed Conditions", prepared by

Environmental Partners Group, Inc., dated October 2000, where treatment plant facilities are located outside of the 100 ft buffer to wetlands.

NR7. Construction of the leaching fields shall proceed as proposed on the plan titled "Town of Provincetown Preliminary Wastewater Facilities Design, Key Plan 2 – Wastewater Disposal Areas", prepared by Environmental Partners Group, Inc., dated October 2000, where leaching fields C, D, E, H, and I are located outside the 100 ft buffer to wetlands, consistent with MPS 2.3.1.2. Where the installation of utility lines and the construction footprint necessitates some construction impact within the 100 ft buffer, disturbance of buffer areas shall be minimized and surface vegetation, topography and water flow shall be restored substantially to the original condition, consistent with MPS 2.3.1.3. **Implementation of this standard shall occur prior to the issuance of a final Certificate of Compliance.**

NR8. Construction of leaching field Area G shall proceed as proposed on the Final EIR plan, where the majority of Area G is located outside the 100 ft buffer to wetlands. Some limited temporary (construction) and permanent (installation of leaching field Area G) impact may occur at Area G, consistent with condition NR9, below.

NR9. Notwithstanding condition NR7, construction of leaching field Area H **may shift slightly** to the east if evidence satisfactory to Commission staff and Regulatory Committee is provided that relocation of Area H to the east will improve protection of the coastal dwarf heath/sandplain grassland community found at this location, and that such relocation will not have adverse impact on the bog system located to the southeast of Area H.

NR10. Consistent with finding NR12 and condition NR9, every effort shall be made to avoid any impact to the coastal dwarf heath/sandplain grassland community found at Area H. **A plan detailing the method for protecting, relocating, or managing impacts to the coastal dwarf heath/sandplain grassland community, including revegetation and/or offsite mitigation as appropriate, shall be provided to Commission staff and Regulatory Committee for approval prior to any issuance of a partial Certificate of Compliance. Implementation of the plan for managing coastal dwarf heath / sandplain grassland shall occur prior to issuance of a final Certificate of Compliance.**

NR11. Where construction associated with the sewer main and connections occurs within proximity to wetlands, the 100 ft buffer to these resources shall be maintained. Where the buffer is already disturbed, new construction shall not result in any greater disturbance of the buffer, consistent with MPS 2.3.1.2. Where no feasible alternative exists, installation of utility (sewer) lines may occur through wetlands and wetland buffers, consistent with MPS 2.3.1.3. In all instances, disturbance shall be minimized, and surface vegetation, topography and water flow shall be restored substantially to the original condition. **Prior to the issuance of a final Certificate of Compliance, disturbed areas shall be revegetated with native species.**

NR12. The RPP does not permit alteration of wetlands. This project shall not have adverse impacts on any wetlands in the vicinity of the project site. As noted in Water Resources findings 7 and 8, the wastewater treatment plant will not adversely impact wetlands due to changes in water quality, surface water levels or groundwater levels. In order to assist the Commission in

determining whether the analyses in findings WR7 and WR8 are confirmed by on-the-ground operation of the wastewater treatment plant, the monitoring programs **in condition NR13 (below)** shall be implemented.

NR13. The monitoring plan for the wastewater treatment plant shall include:

- Baseline vegetative inventory of Duck Pond and the two eastern adjacent wetlands north of Route 6. Annual inventories shall be completed following the initiation of discharge from the wastewater treatment facility. The inventory methodology shall be approved by the Commission staff **prior to the issuance of a partial Certificate of Compliance**. These inventories shall be submitted to the Commission on an annual basis.
- Monitoring wells screened to straddle the water table upgradient and downgradient of the leaching areas. The water quality in the wells downgradient of the leaching areas shall be monitored on a quarterly basis. Water quality parameters shall include, but not be limited to, total phosphorus, total nitrogen, ammonia-nitrogen, and nitrate-nitrogen. Water level information shall be collected every other week. Monitoring results shall be submitted to the Commission on an annual basis.
- Water level monitoring of existing staff gauges (SG-1 through SG-10) in nearby wetlands. Readings at these gauges shall be collected on the same dates as the water levels are collected at the monitoring wells. Monitoring results shall be submitted to the Commission on an annual basis.

NR14. Monitoring described in Condition NR13 above shall continue for a minimum of ten (10) years **from the starting date of operation of the wastewater treatment facility**. At the time of the renewal of the first Groundwater Discharge Permit (GWDP), Commission, DEP, and town staff shall review the collected monitoring information and suggest changes, if any, in the monitoring program. If approved by the Regulatory Committee of the Commission, the vegetative monitoring may be stopped after ten years.

NR15. If, at any point, during the review of annual monitoring results, the Commission finds that detrimental impacts **to wetlands, rare species, water quality, or surface or ground water levels** are occurring due to the discharge from the wastewater treatment facilities, the town shall effect operational discharge changes to address the detrimental impacts. These changes could include, but are not limited to **the following**: modifying the leaching field dosing schedule; eliminating particular leaching fields from operation; constructing new leaching fields; or implementing phosphorus treatment as part of plant operation. **It is expected that these operational changes shall be reviewed by the town, the Commission, and DEP**. Operational changes shall be required and shall be approved by the Commission's Regulatory Committee, upon consultation with Water Resources staff.

NR16. The Commission strongly recommends that all construction equipment utilized for this project be hosed down (particularly the wheels, wheel wells, and undercarriage) prior to arrival at the construction site in order to avoid the introduction of invasive species to sensitive resources.

Water Resources

WR1. Effluent quality discharged from the wastewater treatment plant shall be designed for total nitrogen discharge of 5 milligrams per liter (mg/l). The town shall seek to have the **DEP-issued Groundwater Discharge Permit (GWDP)** include a discharge limit of 10 mg/l total nitrogen with an annual average of 5 mg/l. If the town does not include this criterion in the GWDP, additional analyses must be **submitted and approved by the Commission staff and Regulatory Committee prior to the issuance of a partial Certificate of Compliance** to ensure that minimum performance standard 2.1.2.2 is attained.

WR2. The capacity of the wastewater treatment facility shall be limited to 575,000 gpd. Flows greater than this capacity shall occur only after approval by the Commission.

WR3. All stormwater structures included in the treatment plant design shall be located and discharge outside of 100 ft wetland buffers.

WR4. All trash and refuse material in leaching Area E and the other proposed leaching areas shall be removed **prior to the treatment plant's operation**, to ensure proper functioning of the leaching areas.

Historic Preservation / Community Character

HP1. No construction or development shall occur in the effluent disposal areas until the Massachusetts Historical Commission (MHC) has concluded its review of the project's potential impacts to archaeological resources. If MHC determines that portions of the proposed effluent disposal areas are archaeologically sensitive, an intensive (locational) archaeological survey shall be conducted to determine the location of any significant archaeological resources. If significant archaeological resources are identified in the survey, the proposed effluent disposal areas must be configured so as to maintain and/or enhance those archaeological resources.

HP2. Final design of buildings and lighting plans for the wastewater treatment facility must be approved by the Regulatory Committee of the Commission prior to issuance of a partial Certificate of Compliance.

HP3. Buffers to Route 6 must be maintained where currently existing for leaching fields. Plans for such buffers must be approved by the Regulatory Committee prior to any clearing.

Transportation

T1. Reasonable efforts shall be made to minimize construction impacts on roads during the summer.

The Cape Cod Commission hereby approves with conditions the application of the Town of Provincetown 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 management facilities plan.



Frank Shephard
Cape Cod Commission chairman

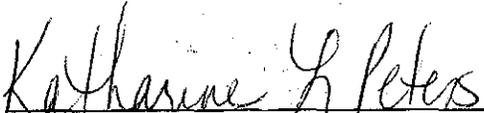
4/12/07

Date

Commonwealth of Massachusetts

Barnstable, ss.

Subscribed and sworn to before me this 12th day of April, 2001.



Notary Public

