



# CAPE COD COMMISSION

3225 MAIN STREET  
P.O. BOX 226  
BARNSTABLE, MA 02630  
(508) 362-3828  
FAX (508) 362-3136

E-mail: [frontdesk@capecodcommission.org](mailto:frontdesk@capecodcommission.org)

Date: March 3, 2003  
Re: Modification of Development of Regional Impact Decision dated  
February 18, 1999  
Cape Cod Commission Act, Sections 12 & 13  
Applicant: Paul and Benjamin de Ruyter  
Cristmill Trust  
224 Black Duck Cartway  
Brewster, MA  
Project #: TR98022  
Project: Brewster Eco-Inn Resort  
2421 Main Street  
Route 6A  
Brewster, MA  
Lot/Plan: Book 9506, Page 111  
Map 14, Parcel 62-5 through 62-7

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## DECISION OF THE CAPE COD COMMISSION

### SUMMARY

The February 18, 1999 DRI Decision issued for the Brewster Eco-Inn Resort in Brewster, Massachusetts is hereby amended as a Minor Modification # 2 by a vote of the Regulatory Committee on March 3, 2003. All conditions attached to the February 18, 1999 decision and the November 18, 2002 modification continue to apply except as modified herein.

### CONDITIONS

#### **Finding WR1 is hereby modified as follows:**

WR1. This project modification consists of construction of a 5,051 s.f wellness center instead of the previously-approved addition to the Mayo House. The modification will result in a 1,083 gallons-per-day (gpd) increase in Title 5 wastewater flow over the previously-approved flow of 6,500 gpd. The total modified flow of 7,583 gpd will result in a nitrogen loading concentration of approximately 13 ppm based on the use of a conventional Title 5 septic system and lawn coverage on the site that is unchanged from the previously-approved project.

#### **Finding WR2 is hereby modified as follows:**

WR2. In order to reduce the nitrogen load to the regional 5-ppm nitrogen-loading standard (MPS 2.1.1.1), the applicant has proposed installation of two wastewater treatment systems: a denitrifying on-site septic system to treat inn, function hall, wellness-center and



restaurant flows (7,505 gpd), and a composting toilet with a leachfield for greywater to treat flows from the Mayo House office building (77.5 gpd). The proposed modification to the previous decision permits the applicant to increase the previously-approved flows to the denitrifying septic system from 5,705 to 7,505 gpd, and to decrease the flows to the greywater leachfield from 795 to 77.5 gpd. The inn, function hall, wellness-center and restaurant flows will be treated by a wastewater system that includes a Bioclere© denitrifying system. In order to meet the 5 ppm regional standard, the Bioclere© on-site wastewater treatment system must discharge wastewater with a total nitrogen concentration of 12 ppm or less.

**Finding WR3 is hereby modified as follows:**

WR3. The Bioclere© on-site wastewater treatment system will require a piloting permit from the state Department of Environmental Protection under the provisions of the state's alternative wastewater permitting process. Piloting permits require monitoring to ensure that experimental on-site septic systems do not compromise the public-health protection provided by standard Title 5 systems.

**Findings WR4 and WR5 are hereby added as follows:**

WR4. The applicant has agreed to implement the Operation, Maintenance and Compliance (OMC) policy attached to this decision. The OMC policy is designed for this project to ensure that the wastewater system will provide sufficient nitrogen removal to meet the regional 5-ppm nitrogen-loading limit (MPS 2.1.1.1).

WR5. The Brewster Board of Health (BBOH) and the Cape Cod Commission (the Commission) are the respective local and regional authorities responsible for administrative and regulatory oversight of the project's onsite-wastewater management. By a vote of the BBOH on January 21, 2003, the BBOH has conceptually agreed to oversee compliance and provide regulatory enforcement of the referenced OMC policy. The BBOH policy *Design, Operating, and Maintenance of Small Wastewater Treatment Facilities* provides for additional funds to be paid to the Town of Brewster for administrative oversight and to ensure compliance with BBOH regulations and policies.

**CONDITIONS**

**Conditions WR1, WR2, WR3, WR4, WR5 and WR6 shall be deleted and replaced as follows:**

WR1. The wastewater systems shall be constructed as detailed on plans entitled "Proposed Utility Site Plan," sheet SD-2, dated 8/12/2002; "Sewage Disposal System Details," sheet SD-3, dated 8/12/2002; and "Sewage Disposal System & Sitework Details," sheets DET-1 through DET-4, dated 8/12/2002; and modified to accommodate the revised flows approved by this decision and described in Findings WR.1 and WR.2.

WR2. Prior to the issuance of a Final Certificate of Compliance, the applicant shall: 1) obtain MADEP piloting approval for the Bioclere© on-site wastewater treatment system; and 2) submit the piloting permit to the Commission for review and approval by Commission staff to ensure that Condition WR3 is met, and to ensure that adequate maintenance schedules and escrow amount are included. Use of a septic-system design other than that the Bioclere© on-site wastewater treatment system specified in Finding WR3 shall be subject to approval by the Cape Cod Commission.

WR3. Prior to the issuance of a Final Certificate of Compliance, the applicant shall have agreed to comply with all provisions of the attached approved Operations, Management and Compliance (OMC) policy for onsite-wastewater management at the site. If the project is unable to meet the provisions of the OMC, the project may be required to obtain a Groundwater Discharge permit from MADEP.

WR4. Prior to the issuance of a Preliminary Certificate of Compliance, the applicant shall make a \$7,500 monetary contribution to cover the costs associated with Commission compliance oversight for the first five years of the wastewater treatment system's operation. Following the initial five-year period of operation, system performance will be jointly reviewed by Commission staff, the Brewster Health Department and the applicant. Upon a recommendation by staff, the Commission's Regulatory Committee and Brewster Board of Health shall jointly determine the need for further compliance oversight and shall notify the applicant of any extension and additional monetary contribution required.

Prior to the issuance of a Preliminary Certificate of Compliance for operation of the onsite wastewater treatment system, the applicant shall provide \$5,000 to ensure immediate repair of the system if needed. Per an escrow agreement developed in a form satisfactory to Commission Counsel, the funds shall be held in an interest-bearing account (Escrow Fund) for a minimum of six years. If the funds are used for repairs to the wastewater treatment system, the applicant shall replenish the Escrow Fund within one year of notification by the Commission. Prior to the expiration of the initial six-year escrow period, the Commission's Regulatory Committee shall determine the need for maintaining the Escrow Fund and shall notify the applicant of any required extension.

WR5. Compost materials from the smaller wastewater systems shall be removed from the site and properly disposed of by a qualified handler.

WR6. Operation and maintenance of the stormwater systems on the Eco Inn site will be the responsibility of the Eco Inn. The systems will be monitored by a qualified firm, as approved by Cape Cod Commission staff, on a monthly basis during the first 6 months of operation and annually thereafter. Each system will be desludged or pumped as appropriate following individual inspections.

David J. Ansel  
David Ansel, Chairman

4/7/03  
Date

Commonwealth of Massachusetts  
County of Barnstable

On this 7<sup>th</sup> day of April, 2003, before me personally appeared David Ansel to me known to be the person described in and who executed the foregoing instrument, and acknowledged that he executed the same as his free act and deed.

Katharine L. Peters  
Notary  
Commonwealth of Massachusetts

My Commission Expires:



**Operations, Management and Compliance Policy**  
**Requirements for onsite-wastewater management**  
**at Eco Inn, on Route 6a, Brewster**

1. To ensure compliance with MPS 2.1.1.2.E.1, onsite wastewater shall be managed in accordance with the following specifications, under the joint regulatory authority of the Town of Brewster Board of Health (BBOH) and the Cape Cod Commission:
  - a) Treated onsite-wastewater effluent discharged to groundwater shall not exceed the following quality parameters, at any time after startup period (90 days):
    - 7,505 gpd;
    - 15 mg/L, Oil and grease;
    - 30 mg/L, Total suspended solids (TSS);
    - 30 mg/L, Biochemical oxygen demand (BOD<sub>5</sub>)<sup>1</sup>;
    - 12 mg-N/L, Total nitrogen<sup>2</sup>; and
    - 12 mg-N/L, Nitrate (NO<sub>3</sub>-N).
  - b) Effluent pH shall not be less than 6.5, nor exceed 8.5, at any time;
  - c) Monthly average BOD and TSS shall not exceed 15% of average monthly influent BOD and TSS concentrations; and
  - d) If actual onsite-wastewater flow exceeds 6,755 gpd (90% of 7,505) during any 90 consecutive-day period, the applicant shall file a report with the BBOH and the Commission detailing onsite wastewater-loading projections and a program for maintaining satisfactory treatment levels.
2. The applicant shall monitor and report performance of onsite wastewater treatment-system in accordance with the following schedules:
  - a) Influent
    - pH - monthly, grab;
    - BOD<sub>5</sub><sup>1</sup> - monthly, 8-hour composite;
    - TSS - monthly, 8-hour composite;
    - Oil and grease - monthly, grab;
    - Alkalinity - CaCO<sub>3</sub> - monthly, 8-hour composite;
    - Total nitrogen<sup>2</sup> - monthly, 8-hour composite;
    - Ammonia-N - monthly, 8-hour composite; and
  - b) Effluent, at or after the effluent pump chamber to leaching area
    - Flow – record total daily;
    - pH - monthly, grab;
    - BOD<sub>5</sub><sup>1</sup> - monthly, 8-hour composite;
    - TSS - monthly, 8-hour composite;
    - Oil and grease - monthly, grab;
    - Alkalinity - CaCO<sub>3</sub> - monthly, 8-hour composite;
    - Total nitrogen<sup>2</sup> - monthly, 8-hour composite;

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<sup>1</sup> 5-day, @ 20° C (BOD<sub>5</sub>)

<sup>2</sup> NO<sub>2</sub>, NO<sub>3</sub> and TKN

- Nitrate-N - monthly, 8-hour composite
  - Ammonia-N - monthly, 8-hour composite;
  - Chlorides - monthly, grab; and
  - Volatile organic compounds<sup>3</sup> - annually, grab.
- c) The applicant shall install three (3) groundwater-quality monitoring wells, one upgradient and two (2) downgradient of the discharge area. The specific locations shall be approved by the BBOH and Commission staff. The wells shall be installed in accordance with MADEP guidelines for monitoring wells (Standard References for Monitoring Wells, WSC-310-91).

The applicant shall monitor and report groundwater quality from these wells to the BBOH and the Commission, in accordance with the following schedule:

- Static water level - quarterly, grab;
  - Specific conductance - quarterly, grab;
  - pH - quarterly, grab;
  - Chlorides - quarterly, grab;
  - Total nitrogen - quarterly, grab;
  - Nitrate-N - quarterly, grab; and
  - Volatile organic compounds<sup>3</sup> - annually, grab.
- d) Grab samples required to be taken less frequently than daily shall be collected during operating hours, Monday to Friday. Composite samples shall be collected across the range of operating hours.
- e) At a minimum, all water-quality reports containing the above-referenced monitoring information shall be submitted monthly to the BBOH and the Commission beginning 30 days from activation of the onsite wastewater-treatment system, and in a form approved by staff from both agencies.
3. In the event that the aforementioned requirements of this policy are not met after the startup period (90 days), the applicant shall repeat sampling within fifteen (15) days. Repeat samples shall not take the place of the following month's samples.

If there are two consecutive monthly samples not in compliance with the requirements set forth in the preceding requirements, the BBOH and the Commission shall be notified within seven (7) days and the applicant shall arrange to meet with representatives of the BBOH to discuss the non-compliance. Within 14 days of said meeting, the applicant shall submit a Return-to-Compliance (RTC) plan to the BBOH and the Commission outlining the proposed corrective actions and timeline for implementation.

4. The applicant shall notify the BBOH and the Commission at least thirty (30) days prior to proposed transfer of ownership of the onsite wastewater-treatment system. Notification shall include a written agreement between the existing and new owner that contains the date of transfer, and details regarding responsibility, coverage and liability between the parties.

5. Prior to commencement of onsite-wastewater treatment, the applicant shall submit an initial staffing plan to and subject to approval of the BBOH and Commission the BBOH and the Commission, identifying the contracted party responsible for maintenance and operation of the onsite wastewater-treatment system. The plan shall be resubmitted upon changes to the operation and maintenance contract.
6. Prior to commencement of onsite wastewater-treatment, the applicant shall contract with a properly licensed waste hauler for removal of all solids and sludge generated by the onsite wastewater-treatment system to an offsite location for disposal at a USEPA/MADEP-approved facility. The original waste haul contract and subsequent contract renewals shall be forwarded to the BBOH and the Commission.
7. In the event that the power supply to the onsite wastewater-treatment system is interrupted, the applicant shall control onsite wastewater production and effluent discharge until performance of the system is restored or an alternative method of treatment is provided.
8. The applicant shall provide the BBOH and the Commission with copies of records requested by either agency and deemed necessary to determine whether cause exists for modification of the onsite wastewater-treatment system.
9. At reasonable times, the applicant shall allow authorized representatives of the BBOH to enter the project site where a regulated activity takes place or where records required by this policy are kept for purposes of inspecting equipment, practices or operations. The applicant shall allow said representatives access to, and the opportunity to copy, any records required under this policy. The applicant shall further allow said representatives to collect samples or monitor for purposes of determining compliance with the terms of this policy.
10. Samples and measurements collected for purposes of monitoring the performance of the onsite wastewater-treatment system shall be representative of wastewater produced by the project and treated effluent discharged by the wastewater-treatment system. Monitoring shall be conducted in accordance with test procedures described in 40 CFR Part 136, unless otherwise specified in this policy.
11. The applicant shall retain records of all monitoring information, including all calibration and maintenance records, and all original strip-chart recordings for continuous monitoring instrumentation and copies of all reports required by this policy for a period of at least three (3) years from the date of the sample, measurement or report. The BBOH or the Commission may extend this required period for record retention.

Records of monitoring information shall include at a minimum:

- The date, time, and location from which samples are collected;
- The personnel collecting samples or monitoring system compliance;
- Dates, techniques and methods of sample analyses;
- Personnel conducting analyses; and

- Analytical results.

12. Except as provided below, the onsite wastewater-treatment system shall not be bypassed at any time. In the event a bypass is necessary, the applicant shall notify the BBOH and the Commission at least ten (10) days in advance, if possible, otherwise no later than twenty-four (24) hours after the bypass. The applicant may allow a bypass to occur which causes effluent limitations to be exceeded, but only if necessary for the performance of essential maintenance or to assure efficient operation of treatment facilities.
13. Authorization to operate the onsite wastewater-treatment system under this policy may be modified, suspended, or revoked for cause. The filing of a request by the applicant for a modification, re-issuance, or termination, or a notification of planned changes or anticipated non-compliance does not stay any requirements of this policy.
14. Approval of the project under the requirements of this policy shall not be construed to preclude the institution of any legal action or relieve the applicant from any responsibilities, liabilities, or penalties to which the applicant is or may be subject to under M.G.L. c.21E.
15. Solids, sludges, filter backwash, or other pollutants removed in the course of treatment or control of onsite wastewaters shall be disposed of in a manner consistent with applicable Federal and state laws.
16. The applicant shall provide notice to the BBOH and Commission as soon as possible of any planned physical alterations or additions to the permitted onsite wastewater-treatment system or activity which could significantly change the nature or increase the quantity of pollutants discharged. Unless and until this policy is modified, any new or increased discharge in excess of limits set forth in this policy or not specifically authorized by this policy constitutes a violation.

The applicant shall further provide notice to the BBOH and Commission of any planned changes to the onsite wastewater-treatment system or activity which may result in non-compliance with this policy.

17. The applicant shall report any non-compliance which may endanger health or the environment. Any information shall be provided orally to the BBOH within twenty-four (24) hours from the time the applicant becomes aware of the circumstances. A written submission shall also be provided to the BBOH and the Commission within five (5) days of the time the applicant becomes aware of the circumstances. The written submission shall contain a description of the non-compliance, including exact dates and times, and if the non-compliance has not been corrected, the anticipated time anticipated to eliminate, and prevent reoccurrence of the non-compliance.

Written and oral compliance with this policy shall include the following:

- Anticipated bypass exceeding any effluent-quality limit cited in this policy; and

- Violation of maximum daily discharge limitation for any pollutants listed in this policy.
18. In the event that the applicant becomes aware that they failed to submit any relevant facts to the BBOH or Commission, or submitted incorrect information in any report to the BBOH or Commission, they shall submit such facts or information within seven (days).