



CAPE COD COMMISSION

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DATE: June 13, 2006

TO: Richard Hunter, Chairman
Chatham Airport Commission

FROM: Cape Cod Commission

RE: Modification of a Development of Regional Impact Hardship Exemption

APPLICANT: Chatham Airport Commission
C/o Town of Chatham
549 Main Street
Chatham, MA 02633

PROJECT #: TR-04012

PROJECT: Chatham Airport Safety Improvements Projects
Chatham Municipal Airport
240 George Ryder Road
Chatham, MA 02633

BOOK: 731 PAGE: 188

Background

The Chatham Airport Safety Improvements Projects was approved, with conditions, by a vote of the Cape Cod Commission on June 23, 2005. The project was approved as a Development of Regional Impact Hardship Exemption.

In a letter dated May 18, 2006, which was received by the Commission on May 22, 2006, Richard Hunter, Chairman of the Chatham Airport Commission, requests that the Cape Cod Commission's decision be modified to delay a requirement that a denitrifying septic system be installed, based on the fact that the Town of Chatham will likely be providing municipal sewer on George Ryder Road. The May 18th letter goes on the state that the exact date for completion of the municipal sewer is not

known at the time the letter was written, but is most likely to occur in the next three years.

Determination

The Executive Director of the Cape Cod Commission has determined that the requested revision to the findings and conditions of the original Hardship Exemption decision to accommodate the anticipated municipal sewer on George Ryder Road, described in Mr. Hunter's letter, constitute *de minimus* changes and are approved as Type 1 Minor Modifications. The following changes shall be made to the findings and conditions of the original Hardship Exemption decision to reflect the anticipated provision of municipal sewer on George Ryder Road as described above.

Changes to Original Decision

Water Resources Findings:

WR2. The project meets the 5-ppm nitrogen loading standard required by MPS 2.1.1.1 and MPS 2.1.1.2.A.1. The project's nitrogen loading results in a site-wide nitrogen loading concentration of 1 ppm in groundwater across the entire site.

WR3. The project's impact on water resources stems primarily from the creation of significant new areas of impervious surface. Based on Plan F2.2 drawn 8/04, revised July 2005, entitled "Proposed Development Plan," and parameters established for nitrogen-loading calculations submitted by the Applicant:

~~1.~~ Construction results in the creation of 4.9-acres of new impervious surface associated with the ~~conversion~~ construction of turf-paved apron to pavement, the reconstruction of runway and taxiways, and the construction of four (4) new T-hangar buildings and associated pavement, construction of a new terminal building, and a new snow removal building.

~~2.~~WR4. Construction results in increased Title-5 wastewater flows of 500 gallons per day (gpd) over existing flows associated with the addition of 2,690 square feet of office/terminal space [4,390 square feet new minus 1,700 square feet existing] and water supplies to the new SRE building. Total Title-5 wastewater flows for the airport will be 2,600 gpd.

WR4WR5. The Airport is located in Marine Water Recharge Areas, which are regulated under MPS 2.1.1.2.C. MPS 2.1.1.2.C.1 and MPS 2.1.1.2.C.2 require that DRIs not increase their nitrogen load to watersheds discharging to nitrogen-overloaded estuarine systems. Groundwater beneath the airport discharges to the Oyster Pond/River and Sulfur Springs estuaries. These estuaries are nitrogen overloaded according to the 2004 Chatham Massachusetts Estuaries Project Final Report. The Airport currently results in a of-191 kg-N/yr nitrogen load to groundwater. A phased increase in impervious surface proposed for the project, prior to any increase in wastewater flows and sewer connection, The project results in a total nitrogen load of 207-219 kg-N/yr. Therefore, the project needs to mitigate at least 16

27 kg-N/yr nitrogen (219 kg-N/yr minus 191 kg-N/yr) to meet MPS 2.1.1.2.C.1 and MPS 2.1.1.2.C.2 if the project is completely built out.

~~WR5WR6. The Airport is able to meet MPS 2.1.1.2.C.1 and MPS 2.1.1.2.C.2 by denitrifying Airport wastewater and mitigating 21 kg-N/yr of the project's nitrogen load by treating stormwater runoff from up to up to 75% of existing and proposed impervious pavement using bio-filtration methods through use of a Massachusetts DEP-approved treatment technology as described in Finding WR7WR8, leaving 6 kg-N/yr of project nitrogen to be mitigated. The combination of these methods~~

WR7. A letter was received from the Chatham Airport Commission on May 22, 2006 requesting a postponement of the condition set forth in the original DRI decision that requires the airport to replace the Airport's existing standard Title-5 septic system with a DEP-approved denitrifying septic system to mitigate the remaining 6 kg/-N/yr. The basis for the request is the expectation that the Airport will be connected to sewer by 2009. Connection of the Airport to sewer (prior to any increase in Title-5 wastewater flows) will reduce the Airport's future nitrogen load by more than 16 an additional 102 kg-N/yr nitrogen. During phased development of the project, and aAt full build out of the Airport Plan, as presented with full implementation of its septic system and stormwater management strategies, the project and Airport will would meet MPS 2.1.1.2.C with full implementation of its sewerage and stormwater management strategies.

~~WR6. The existing septic system will be replaced with a denitrifying septic system permitted through a General Permit issued under the MADEP Innovative/Alternative (I/A) On-site Wastewater System Program. The specific septic system type/manufacturer proposed for this project was not selected by the Applicant at the time this decision was rendered, and engineered plans for the septic system were not submitted to the Commission during the project review. This information shall be submitted prior to issuance of the first Preliminary Certificate of Compliance.~~

~~The Airport and the Town of Chatham have discussed the possibility of including wastewater flows from the nearby Town Annex Complex into the airport's planned denitrifying septic system. The Town is currently preparing its Comprehensive Wastewater Management Plan. Until the Comprehensive Wastewater Management Plan is finalized and approved, a decision to include the off-site wastewater into the Airport's proposed system cannot be made. Although the Airport can meet the RPP MPS for nitrogen loads without this additional effluent, contingent upon satisfaction of condition WR2, the Cape Cod Commission encourages the parties to pursue this option in the interests of better environmental conditions for Chatham should the inclusion of off-site wastewater be deemed feasible and consistent with the Town's wastewater comprehensive wastewater management plan.~~

~~WR7. Conceptual plans submitted with the application describe use of vegetated swales and basins to treat runoff from 75% of the Airport's paved areas. Engineered stormwater plans have not been submitted as of the date of this decision. Engineered plans must meet MPS 2.1.3, including MPS 2.1.3.2 which require~~

consistency with Massachusetts Stormwater Policy Guidelines prescribing specific design criteria in critical areas such as Wellhead Protection Areas.

WR8. Engineered stormwater plans were submitted to the Commission on February 23, 2006 for construction of 90,000 s.f. of paved apron, the first installment of impervious surface described in Finding WR6. The design provides bio-filtration of 100% of runoff from the proposed paved apron, consistent with MPS 2.1.3 and conceptual plans referenced earlier in this Finding (WR8). The increased impervious surface increases the Airport's nitrogen load by approximately 9.6 kg-N/yr, to be offset by the Airport's future connection of the Airport to sewer.

WR9. A stormwater operations and maintenance plan was submitted by the Applicant as a Stormwater Pollution Prevention Plan (SWPPP) toward meeting MPS 2.1.3.6. The SWPPP will need to be revised to reflect any changes to impervious surfaces, stormwater infrastructure and management in order that they are consistent with MPS 2.1.3.

Water Resources Conditions:

WR1. The project shall be constructed in accordance with Findings WR1 through WR7WR9.

WR2. The project shall capture, treat and infiltrate a minimum of 75% of runoff from a minimum of 75% of the airport's paved areas using vegetated swales and basins meeting Massachusetts Stormwater Policy guidelines for critical areas.

Engineered plans showing the proposed stormwater infrastructure layout and drainage system details for construction Phases I, II & III as described in this condition (WR2) shall be submitted to the Commission for review six (6) weeks prior to issuance of the Preliminary Certificate of Compliance for the project subparts described in this condition (WR2). The plans will be reviewed for consistency with Minimum Performance Standards 2.1.1.2.C.1, MPS 2.1.1.2.C.2, and Minimum Performance Standards under Section 2.1.3 of the RPP and approved by Commission staff before issuance of both the Preliminary and Final Certificates of Compliance .

Construction Phase I

- Reconstruction of the runway safety areas
- Reconstruction of Runway 6-24 with MIRLS with installation of REILS and a PAPI for Runway 6
- Reconstruction of the Main Apron
- Conversion of the turf apron to a ~~10,000 square yard~~ 90,000 s.f. paved apron
- Construction of the two 6-unit (9,000 square foot) T-hangars located closest to the parallel taxiway as noted in finding CC4, and

- Replacement of the 20,000-gallon fuel storage facility with a 10,000-gallon capacity aboveground aircraft fuel storage and aircraft fueling area as described in finding G1, G2 and condition HMW3.

~~WR3. Engineered plans showing the proposed stormwater infrastructure layout and drainage system details for construction Phase II as described in this condition (WR3) shall be submitted to the Commission for review and approval by Commission staff before issuance of the Preliminary Certificate of Compliance for the project subparts described in this condition. The plans will be reviewed for consistency with Minimum Performance Standards 2.1.1.2.C.1, MPS 2.1.1.2.C.2, and Minimum Performance Standards under Section 2.1.3 of the RPP and approved by Commission staff before issuance of both the Preliminary and Final Certificates of Compliance:~~

Construction Phase II

- Reconstruction of the parallel taxiway with installation of MITLS

~~WR4. Engineered plans showing the proposed stormwater infrastructure layout and drainage system details for construction Phase III as described in this condition (WR4) shall be submitted to the Commission for review and approval by Commission staff before issuance of the Preliminary Certificate of Compliance for the project subparts described in this condition. The plans will be reviewed for consistency with Minimum Performance Standards 2.1.1.2.C.1, MPS 2.1.1.2.C.2, and Minimum Performance Standards under Section 2.1.3 of the RPP and approved by Commission staff before issuance of both the Preliminary and Final Certificate of Compliance:~~

Construction Phase III

- Reconstruction of turf tie-down areas T-3 and T-4 (Turf tie-down area T-3 is located adjacent to the aircraft fueling area and is shown on plan F5.1 dated 8/2004, revised July 2005, and turf tie-down area T-4 is located to the north of the terminal area and is shown on plan F8.1 dated 8/2004).

- Construction of the proposed (5,280 square-foot) terminal building and associated parking lot

- Construction of the proposed 3,600 square-foot SRE building and associated driveway

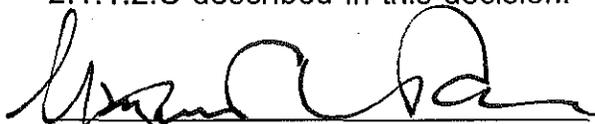
- Construction of the two 9,000 square foot 6-unit T-hangar buildings and associated taxilanes located nearest to George Ryder Road

~~WR5. A Preliminary Certificate of Compliance for any Phase or permutation of Phases identified in Conditions WR2 through WR4 shall not be issued by the Commission unless nitrogen-loading offsets are provided as necessary to meet MPSs 2.1.1.2.C.1 and MPS 2.1.1.2.C.2.~~

WR3. No Certificate of Compliance for any Phase or permutation of Phases identified in Condition WR2 shall be issued after the earlier of 1) **June 30, 2009** and 2) construction of any Phase or permutation of Phases identified in Condition WR2 that results in increase wastewater flows without either 1) connection of the Airport to sewer or 2) Commission staff approval of a DEP-approved denitrifying septic system design plans and implementation of those plans. The Airport's Title-5 wastewater flows shall be limited to 2,600 gallons per day (gpd).

WR4. Engineered plans describing either 1) connection of the Airport to sewer or 2) DEP-approved denitrifying septic system shall be submitted to the Commission at least **6 months** prior to the earlier of 1) **June 30, 2009** and 2) construction of any Phase or permutation of Phases identified in Conditions WR2 that results in increase wastewater flows. These plans will be reviewed for consistency with MPS 2.1.1.2.C. The Airport's Title-5 wastewater flows shall be limited to 2,600 gallons per day (gpd).

WR65. If any of conditions WR1 through WR45 are not met, the Applicant must seek a modification to this decision according to the Commission's *Enabling Regulations* in effect when the modification is sought, relative to an alternative plan for meeting MPS 2.1.1.2.C described in this decision.


Executive Director

6/13/06
Date

COMMONWEALTH OF MASSACHUSETTS

Barnstable, ss

June 13, 2006

Before me, the undersigned notary public, personally appeared Margaret L Fern in her capacity as Executive Director of the Cape Cod Commission, whose name is signed on the preceding document, and such person acknowledged to me that she signed such document voluntarily for its stated purpose. The identity of such person was proved to me through satisfactory evidence of identification, which was personal knowledge of the undersigned.


Notary Public

My Commission expires:

