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CAPE COD
COMMISSION

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MINOR MODIFICATION TYPE #1

Date: March 25, 2015

To: Barnstable Municipal Airport Commission
c/o Roland Breault, Airport Manager
480 Barnstable Road
Hyannis, MA 02601

Project Owner/
Applicant: Town of Barnstable, Massachusetts acting by and through the
Barnstable Municipal Airport Commission

Project Name &
Site: Barnstable Municipal Airport ("Airport")
480 Barnstable Road, Hyannis, MA 02601
CCC Project No. TR95006

MODIFICATION OF DEVELOPMENT OF REGIONAL IMPACT DECISION

Summary

Pursuant to Section 13 of the Cape Cod Commission Enabling Regulations (Revised November 2014), the Development of Regional Impact (DRI) decision dated April 27, 1995 (as modified October 1996) ("DRI decision") is hereby further modified as a Minor Modification Type #1, subject to the terms and conditions set out herein, to allow *de minimus* changes to the Project relating to allowable activities within buffer zones to Upper Gate and Lewis Ponds in order to meet federal safety guidelines. The DRI decision was issued in principal part to allow the construction of the Airport's Rescue, Firefighting and Maintenance facility.

All findings and conditions attached to the original decision and subsequent modifications continue to apply except as modified herein.

Background/ Reason for Modification Request

The Federal Aviation Administration (FAA) requires the Airport to maintain runway line of sight standards for intersecting runways called a runway visibility zone (RVZ). The RVZ allows departing and arriving aircraft to verify the location and actions of other aircraft and vehicles on the ground that could create a conflict. FAA standards contained in its Advisory Circular 150/5300-13A require that any point five feet above the runway centerline in the RVZ must be mutually visible with any other point five feet above the centerline of the crossing runway in the RVZ. The RVZ is a three-dimensional area delineated in the horizontal direction by connecting the runways' line of sight points.

Currently the Airport maintains that it is not in compliance with FAA RVZ requirements, as Runways 6-24 and 15-33 have lines of sight that do not meet these standards and contain visual obstructions north of the runways. In order to comply with FAA standards and create a safer operational area, the Applicant proposes to reduce the existing forested vegetation north of the intersecting runways in height within the RVZ through a combination of vegetation removal and tree-topping, given the varying topography of this area.

The proposed work involves vegetation removal and tree topping within the 100-foot and 200-foot buffer zones to Upper Gate Pond and Lewis Pond, but no grubbing or stumping. As vegetation removal or topping within this area is not allowed under Condition 11 of the DRI decision, the RVZ project requires a Modification to the existing DRI Decision in order to create and maintain compliance with line of sight standards in the RVZ.

Condition 11 of the DRI decision currently provides:

The Applicant shall maintain a natural, undisturbed buffer of at least 100 feet in width from the high water mark of the following ponds: Upper Gate Pond, Lewis Pond, Mary Dunn Pond, Lamson's Pond and the two unnamed small ponds near Lamson's and Mary Dunn Ponds shown on Sheet I of the abutting parcels (July 23, 1976/Folder 12-38/Book 308, pg. 76). No disturbance of the buffer area may occur, including but not limited to, tree and vegetative pruning, tree topping and any interference with the soil or subsurface layer. The Applicant shall maintain a natural buffer of at least 200 feet in width from the high water mark of these ponds, where the Applicant shall be restricted to topping of trees sufficient to provide a line of sight required for safety reasons connected to the Barnstable Airport equipment building. The 100 and 200-foot buffer areas shall be delineated on the final recorded site plan and attached to this decision.

The corresponding natural resources minimum performance standards (MPSs) from applicable Regional Policy Plan (RPP) (1991) under which the DRI was reviewed provide:

2.3.1.2 Natural, undisturbed buffer areas of at least 100' width shall be maintained from the edge of coastal and inland wetlands including isolated wetlands, to protect their natural functions including but not limited to mitigation of stormwater impacts and their wildlife habitat value. This policy shall not be construed to preclude pedestrian access paths, vista pruning, or construction and maintenance of water-dependent structures within the buffer area, any of which may be permitted at the discretion of permitting authorities where there is no feasible alternative to their location. The Commission and local Conservation Commissions shall require a larger buffer area where necessary to protect sensitive areas or where site conditions such as slopes or soils suggest that a larger buffer area is necessary to prevent any adverse impact to wetlands and associated wildlife habitat. Where a buffer area is already developed, this requirement may be modified by the permitting authority, provided it makes a finding that the proposed alteration will not increase adverse impacts on that specific portion of the buffer area or associated wetland.

2.3.1.3 Disturbance of wetlands and buffer areas for operation and maintenance of underground and overhead utility lines (electrical, communication, sewer, water, and gas lines) may occur. Installation of new utility lines through these areas may occur where the permitting authority finds that the proposed route is the best environmental alternative for locating such facilities. In all instances, disturbance of wetland and buffer areas shall be minimized and surface vegetation, topography and water flow shall be restored substantially to the original condition.

The Airport has provided evidence (1938 aerial photo) of historical land disturbance and development in the buffer zones to Upper Gate and Lewis Ponds, and has provided a copy of a 1993 Order of Conditions from the Barnstable Conservation Commission (Recorded in Barnstable Registry Book 8988 Page 142, File No. SE3-2701, issued prior to the 1995 DRI decision) allowing topping and vegetation removal activities within these buffer zones. This information was not reflected in the 1995 DRI decision.

The Barnstable Conservation Commission has recently issued an Order of Conditions on October 28, 2014 (DEP File #003-5231; Appendix A) approving the proposed work (the Applicant provided copies of this Order and the corresponding Notice of Intent to Commission Staff), and inasmuch as the project area is mapped as both Estimated Habitat of Rare Wildlife and Certified Vernal Pools and Priority Habitat of Rare Species under the Massachusetts Endangered Species Act (MESA), Massachusetts Natural Heritage and Endangered Species Program (NHESP) has issued a 'no take' letter, without conditions, regarding the proposed work on October 24, 2014, determining that the proposed RVZ project will not adversely affect habitat and will not result in a prohibited "take" of state-listed rare species.

Prior to commencement of any work, and as a condition of this Modification, the Airport proposes to develop and implement, after review, input and approval from Commission and town natural resources staff, work protocols and best management practices (bmp's) to mitigate resource area impacts associated with the proposed work.

Condition 11 currently requires an undisturbed buffer zone around Upper Gate and Lewis Ponds, but also recognizes that work in the buffer zone may be required to provide safe sight lines for runways. Additionally, the relevant MPSs cited above provide for work in restricted buffer zones in a few circumstances, both of which apply to the matter at hand; 1) for infrastructure work and for other ancillary purposes, with appropriate mitigation, if there is no feasible alternative location for such work, or 2) if there has been prior development in the buffer zone.

Modification to Decision

Based on the foregoing, the Decision is hereby modified by deleting Condition 11 in its entirety and substituting it with the following new Condition 11, which authorizes the Airport to undertake and maintain the proposed safety related work described herein:

The Airport shall maintain a natural, undisturbed buffer of at least 200 feet in width from the high water mark of the following ponds: Upper Gate Pond, Lewis Pond, Mary Dunn Pond, Lamson's Pond, and the two unnamed small ponds located near Lamson's and Mary Dunn Ponds, respectively, as shown on the plan recorded with the Barnstable Registry of Deeds in Plan Book 308, Page 76. No disturbance of or development within this buffer area may occur, including but not limited to, tree and vegetative pruning, tree topping and any interference with the soil or subsurface layer, except that the Airport may undertake and maintain vegetation removal and tree-topping around Upper Gate and Lewis Ponds to the minimum extent necessary to comply with Federal Aviation Administration safe line of sight and runway visibility requirements.

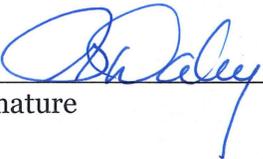
Such work or maintenance shall only be undertaken according to and consistent with work protocols and best management practices (bmps) implemented to address resource area impacts associated with such work and maintenance, and no such work or maintenance shall be commenced and undertaken unless and until the Airport has developed, with input from

Commission staff, and Commission staff has reviewed and approved, such protocols and bmps. Work protocols and bmps shall at a minimum be consistent with and include without limitation the general information and elements contained in Attachment A hereto, which elements shall be developed further in final form.

Signature page follows

ISSUANCE OF MODIFICATION DECISION (MM#1)
Barnstable Municipal Airport
TR95006

Executed this 25th day of March 2015.

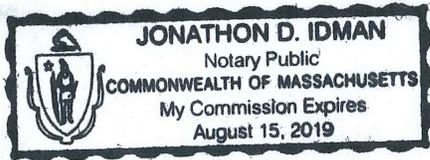

Signature

Patricia Daley, Deputy Director
Print Name and Title

COMMONWEALTH OF MASSACHUSETTS

Barnstable, ss March 25, 2015

Before me, the undersigned notary public, personally appeared Patricia Daley, in his/her capacity as Deputy Director of the Cape Cod Commission, whose name is signed on the preceding document, and such person acknowledged to me that he/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 [] photographic identification with signature issued by a federal or state governmental agency, [] oath or affirmation of a credible witness, or [] personal knowledge of the undersigned.




Notary Public
My Commission Expires:

SEAL

ATTACHMENT A- MODIFICATION DECISION (MM#1)- March 2015

Barnstable Municipal Airport(TR95006)

Elements and Information to be included/ provided in Work Protocols & BMPs for Buffer Zones to Upper Gate and Lewis Ponds for Vegetation Removal, Tree Topping & Maintenance

- Incorporation of Barnstable Conservation Commission conditions from its October 2014 OOC (DEP File #003-5231; Appendix A)
- BMA authorizes Commission staff site visits to confirm that work is undertaken and maintained/ managed pursuant to such protocols and bmps
- Regular notice of and reporting to Commission of work, including maintenance activities
- No grubbing and stumping shall be allowed
- No pesticide or herbicide use shall be allowed
- Invasive species management provisions, including provisions to prohibit invasive species from being imported to the site from construction vehicles and materials
- Provide set elevation profile for tree-topping
- Establish the degree of necessary work based upon a set elevation profile, with limit of work area, erosion and sedimentation control measures, and identified tree topping and vegetation removal specified and depicted on a plan
 - It is envisioned that the resultant vegetation community will be predominantly a scrub shrub/sapling community based upon ground surface, i.e. work follows existing contours so long as vegetation does not exceed a height that results in obstructions within the RVZ. The Contractor and Environmental Monitor could establish existing topographic benchmarks to facilitate with monitoring.
- The limit-of-work (LOW) will be clearly staked out in the field prior to the commencement of activities
- An Environmental Monitor (EM) will oversee vegetation removal, tree removal and maintenance activities, and will conduct weekly inspections of the cleared areas. The EM will be on-call for the duration of the project. Cape Cod Commission staff shall approve designation of the EM
- A series of construction photographs will be taken to document conditions before and after the project.
- Timing for the cutting of pitch pine will occur in accordance with the Barnstable Conservation Commission's Vista Pruning Guidelines, which only allow, among other things, limbing of pitch pine between October 1 and March 31
- Erosion and sediment control measures shall be developed and installed prior to commencement of any activity in the vicinity of the two ponds and will remain in place and in good condition until final site stabilization of disturbed areas is complete with any necessary vegetation following the work.
- Tree removal equipment shall only enter the site following installation of erosion control materials
- Equipment and other machinery will be re-fueled outside of 200' buffer areas and wellhead protection areas.
- Rubber tired equipment will be used within more environmentally sensitive areas or those with soft soil, such as the 50-foot and 100-foot buffer zones to the ponds. Track machinery may be used outside of the 200 foot buffer area

- Staging areas will be established in 2 locations, one near Upper Gate Pond and the second near Lewis Pond. These areas will be located outside of the 200-foot buffer and on flat ground.
- In areas immediately adjacent to the ponds, trees will be hand cut with chainsaws and/or power winch or boom of an excavator/backhoe in segments to minimize ground disturbance and avoid debris falling within the ponds
- Debris/slash proposed to be removed to a staging area will be removed in a manner so as not to cause damage or detrimental impacts to resources within the 200 ft buffer area. Winching may be used so long as this method does not cause such damage or detrimental impacts.
- A portion of the downed trees may be left on-site to enhance the forest floor habitat. Occasional dead tree snags will be left in place for added habitat value, at the discretion of the EM and Cape Cod Commission staff.
- Remaining cleared vegetation will be removed from the property and legally disposed of.
- Areas that require revegetation will be replanted with other vegetation that mimics the native plant community found throughout the maintained areas of the Airport. The need for revegetation will be at the discretion of the EM and Cape Cod Commission staff
- Management and maintenance of the RVZ will be required over time, including mowing of cleared areas (in keeping with current Airport mowing schedules) and additional tree-topping and/or vegetation removal as new growth occurs. This is anticipated to occur every two to three years as needed. Annual monitoring of the RVZ area following its creation will inform the need and frequency of maintenance cutting within shrubby portions of the RVZ.
- Monitoring of the site and rate of grow-back will occur during every growing season for the first two years.
- Adoption of environmentally friendly ongoing maintenance and management activities to the greatest extent feasible.
- A summary of the general sequence of in-the-field vegetation removal and topping activities, including:
 - Survey RVZ and identify areas of vegetation that must be removed and elevation at which trees must be cut.
 - Stake LOW area
 - Install erosion and sediment control devices for protection of wetland resource areas.
 - Mobilize vegetation removal equipment to the RVZ.
 - Remove identified vegetation and top trees within the LOW area. Leave a portion of the downed trees/tree tops on site to provide for habitat enhancement that will support and maintain the existing rare species, at the discretion of the EM and Commission staff; process remaining vegetation with a wood-chipper (or similar) and remove chip debris from site, unless there is a plan to re-use the chip debris on-site, such plan at the discretion of and acceptable to the EM and Commission Staff .
 - Re-vegetate with native low growing shrubs or other revegetation as necessary
 - Remove erosion control devices once all bare areas are stabilized/ re-planted.