



Appendix D.

Habitat Management and Protection Plan

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Habitat Management and Protection Plan for Saratoga County Airport

Submitted to:

Saratoga County Department of Public Works
New York State Department of Environmental Conservation
Division of Fish, Wildlife, and Marine Resources
United States Department of Interior's Fish and Wildlife Service

For:

Saratoga County Department of Public Works

November 2018

I. INTRODUCTION

As part of the County's 2018 Master Plan Phase I Projects Environmental Assessment (EA) and associated Biological Assessment (BA), the non-binding Draft Management Agreement (DMA) between the New York State Department of Environmental Conservation (NYSDEC) Division of Fish, Wildlife, and Marine Resources and Saratoga County (County) and the non-binding Draft Operations Agreement for Glider Activity at the Airport (DOA) between the NYSDEC, the County, and Saratoga Soaring Association and Adirondack Soaring Association have been combined into this Habitat Management and Protection Plan (HMPP). The HMPP addresses endangered species management at the Saratoga County Airport. The Saratoga County Airport is owned by Saratoga County and managed by the Saratoga County Department of Public Works (DPW).

The original DMA was drafted in 1991 and most recently revised October 15, 2001. The DOA was drafted in December 1995 and most recently revised November 1, 2001. The DMA protects the Karner blue butterfly (*Lycaeides melissa samuelis*) and frosted elfin butterfly (*Callophrys irus*), perpetuates, and manages habitat on the airport property. The DOA was designed to minimize the adverse effects of glider operations on protected species and their habitat.

Saratoga County completed an Airport Master Plan Update (MPU) for the airport in 2015. The MPU made a number of recommendations for the 20-year planning horizon to assist the airport in meeting current Federal Aviation Administration (FAA) design and safety standards and to accommodate forecasted growth. Subsequently, the County completed a Draft Environmental Assessment (EA) for the Master Plan Phase I Projects in May 2018. The EA must be approved by the FAA and that approval will be contingent upon the Section 7 consultation with the United States Fish and Wildlife Service (USFWS) under the Endangered Species Act (ESA) regarding impacts to the Karner blue butterfly.

The Karner blue butterfly is considered a federally and state-listed endangered species and the frosted elfin butterfly is a states-listed threatened species. Known populations of these species occur on Saratoga County Airport property in the Town of Milton, Saratoga County, New York. The airport property also supports the mottled duskywing (*Erynnis martialis*), a state-listed species of special concern, as well as several other specialized grassland invertebrates and nesting birds.

Endangered, threatened, and species of special concern are considered "protected wildlife" under Article 11 of the Environmental Conservation Law (ECL). The NYSDEC, under its legal mandate and responsibilities under Sections 11-0303 and 11-0535 of the New York State Fish and Wildlife Law and the Endangered Species Cooperative Agreement with the USFWS, is responsible for the welfare and protection of resident threatened and endangered species. Activities adversely affecting an endangered or threatened species or its occupied habitat may be construed as taking under Section 11-0535 of the New York State Fish and Wildlife Law.

The Karner blue butterfly has been listed as a federal endangered species under Section 4 of the ESA and is under the jurisdiction of the USFWS and aspects of the activities covered under the

HMPP may be construed as take under Sections 3 and 9 of the ESA.

II. HABITAT MANAGEMENT GUIDELINES

The following are general habitat management guidelines based on the original DMA and DOA, which are still applicable to the HMPP.

The extent of the present "Known Habitat Area" is depicted on the attached Habitat Management and Protection Plan, Figure 1, dated May 2018. It includes the area outside the Exempt Area and is primarily considered to be bound by the existing airport fence. The fence, for its entire perimeter around the airport property, will delineate the extent of the "Known Habitat Area", with no buffers beyond the fence line at any location. According to the original DMA, the County agreed to allow the NYSDEC to improve and expand habitat on the airport property to the extent that it would not impinge on the exempt areas or the other areas agreed to remain non-lupine habitat.

The County will avoid use of machinery on all habitat areas at any time of the year with the exception of those areas and times specifically identified in this HMPP. The County will annually instruct its employees of the mowing schedule and the restrictions of driving or parking any vehicles outside of designated areas and will emphasize the importance of adhering to the terms of this HMPP. Early mowing may kill Karner blues or frosted elfin butterflies and impair long-term integrity of the habitat.

Snow may be blown off runways and taxiways into the habitat areas via snowblowers to clear pavement and the lights. Snow plowed from the aircraft parking areas in front of the fix based operator (FBO) offices may be pushed off the pavement into the area immediately adjacent to the west side of the aircraft parking but must not be pushed any further than the corner of the fence line (see attached Figure 1). A reasonable effort will be made to raise the blade of the plow to minimize scraping the ground and vegetation in this area. This condition must be part of the annual instruction County workers receive.

The NYSDEC and USFWS reserve the right to review and comment on the preliminary design strategies of any new construction, techniques and timing of projects or expansions that may be proposed under the 2018 Master Plan Phase I Projects EA. This will ensure that working habits and procedures will not have a detrimental effect on the protected butterflies or their habitat.

In eventualities where NYSDEC and USFWS approve projects, repairs or other activities that may occur within the habitat areas, the County will keep such projects to a minimum extent and reseed with NYSDEC approved mixes of native habitat seeds or seedlings. Projects, repairs or activities occurring within the exempt areas will be re-seeded using species approved by NYSDEC that will not encroach or invade native habitat.

Under the original DMA, the County and NYSDEC developed the format and language for an interpretive sign for the airport to educate the public on the Karner blue and the other values of the sand prairie habitat at the airport. The sign was installed on the north end of the existing public

parking area. This sign will be relocated near the public parking area proposed under the 2018 Master Plan Phase I Projects EA.

The County and DPW will make every effort to administer and enforce this plan in accordance with its terms, the County will not be held responsible for violations, or any resulting monetary fines, of its terms by persons or parties not in the employ or under the direction of Saratoga County.

A. MOWING PLAN

The following mowing plan includes language from the original DMA and has been revised to reflect mowing areas as proposed under the 2018 Master Plan Phase I Projects EA. Mowing areas have been revised under the EA to reduce wildlife hazards in accordance with the FAA approved Wildlife Hazard Management Plan for the airport. Regular airport maintenance (mowing), also maintains suitable habitat for the butterflies and this mowing is timed to minimize adverse effects to the butterflies.

The County will not begin its annual mowing of the airport property until after October 15 of each year and will complete such mowing before December 31 to allow the Karner blue and frosted elfin to fully carry out their life functions and to allow for completion of the life cycles of essential habitat plants including but not limited to wild blue lupine (*Lupinus perennis*). Mowing blades will be set to between six (6) and eight (8) inches. Areas which must be mowed earlier to allow for safe use of the runways and taxiways by aircraft are exempt from this restriction. Exempt areas described below are illustrated on the attached Habitat Management and Protection Plan, Figure 1, dated May 2018, which will be considered part of this HMPP.

1. Generally, the area between Geysers Road (County Route 43) and the terminal areas and the aircraft tie-down areas along Taxiways A and C. The width of the area is irregular and roughly extends on the west side along the airport fence at the parking lot to the extent of the North American Flight Services (NAFS) facility and along the tree line back to Geysers Road. On the east side, it extends as far as the glider hangar location at the turn of Taxiway C toward Runway 32.
2. The grassy area between the aircraft tie-downs along Taxiway C and the hangar area.
3. A swath along taxiways and the taxiway into the NAFS facility to clear vegetation within the taxiway safety areas. Based on the taxiway and runway dimensions, approximately 14.5 feet on each side of the taxiways will be mowed, varying slightly in the fillet areas. Mowers will be reminded each year to mow only the minimum area needed to clear the lights and signs. If necessary, a large mower will be used to cut a swath along the edge of the pavement and a smaller riding mower cut around the lights and the remainder of the grass within the safety area. (See detail on the attached Figure 1).
4. Mowing along runways to clear vegetation within the safety areas. Mowing safety areas for Runway 14-32 would include a 5-foot wide area on both sides of the runway,

- 300 feet off of the Runway 14 end and approximately 150 feet off of the Runway 32 end. Mowing of safety areas on Runway 05-23 would consist of 180-foot wide area on both sides of the runway and 800 feet from the edge of pavement on the runway ends. The County, will mark the limits with yellow or orange retroreflective markers to avoid mowing outside of the safety areas and potentially impacting butterfly species and/or their habitat.
5. The area surrounding the airport beacon. There is considerable lupine habitat readily used by Karner blues and frosted elfins on and above the slope near the beacon and between the beacon and the hangars. While part of the exempt area, this lupine should not be disturbed until the October 15 annual mowing date unless there is a compelling safety or operational reason. If the habitat will be affected by excavation for cable placement or repair, every effort should be made to minimize the extent of the damage to the habitat and it should be reseeded with habitat mix as specified by NYSDEC. The County, with NYSDEC's assistance in designating the edge, will maintain markers that indicate the limits of this area to aid its mowers in avoiding it.
 6. The grassy area along the southeast side of Runway 05-23, which is proposed to be paved for a partial-parallel taxiway (connecting Taxiway A to Taxiway B) under the 2018 Master Plan Phase I Projects EA.
 7. The remaining area located between the proposed partial-parallel taxiway (connecting Taxiway A to Taxiway B) and Runways 14-32 and 05-23. The existing Taxiway B stub is proposed to be removed and the partial-parallel taxiway is proposed to be constructed under the 2018 Master Plan Phase I Projects EA.
 8. Stormwater management areas proposed as part of the partial-parallel taxiway and Taxiway C projects in the 2018 Master Plan Phase I Projects EA. In accordance with FAA guidance, the stormwater infiltration trenches would need to be constructed outside of the safety areas. A 10-foot swath, which included the infiltration trench, extending beyond the safety area would be mowed to allow the stormwater management practice to operate effectively.
 9. The grassy area at the elbow of Taxiway D at the Runway 32 end, which is proposed to be turf for a glider staging area and paved for the realignment of Taxiway D under the 2018 Master Plan Phase I Projects EA.
 10. The access road built and used during Runway 05-23 reconstruction in 2001 from the airport entry road to the southeast corner of Taxiway A. The County will maintain the road at its present width with gravel to keep lupine from growing into the road.
 11. The two (2) permanent access roads which are west and north of the runway intersection: These roads were constructed during the course of a prior

- obstruction removal project. The County will maintain the existing footprint of these roads with gravel to keep lupine from growing into the roads.
12. Service access roads and aprons to the automated weather observation station, electrical vault and beacon. The location of these roads and aprons were coordinated with NYSDEC and constructed during the course of a prior obstruction removal project. The County will maintain the existing footprint of these roads and aprons with gravel to keep lupine from growing in these areas.

B. GLIDER OPERATIONS

The County and NYSDEC have developed management guidelines, as set forth herein, with respect to all aircraft users who request operations off-pavement that detail approved locations for their activities and the procedure to report and document any emergency landings off pavement in the habitat areas. This plan is designed to minimize and control occasional and temporary take from off pavement activities.

A variety of general and specific factors can and do influence the growth and survival of both butterflies and their habitat at the airport. It has been determined that operation of gliders (and the activities attendant thereto, such as set up and take down) at the airport could have a detrimental effect on these animals and their habitat. The magnitude of this effect is not known, but it is believed to be minor by itself. However, cumulatively with the impact of other factors, it could be significant. As part of the effort to minimize all deleterious effects, the following procedures relating to the operation of gliders at the airport are necessary. While it is recognized that the Saratoga Soaring Association (SSA) and Adirondack Soaring Association (ASA) is the primary glider operator at this airport, these procedures shall apply to all glider use at the airport.

Areas described below are illustrated on the attached Habitat Management and Protection Plan, drawing 1, dated May 2018.

1. Tie-Down Zones

No gliders may be kept off-pavement for tie-down purposes. Non-SSA and non-ASA glider owners wishing to leave their gliders at the airport will have to make arrangements with SSA, ASA or the DPW regarding storage or parking of their crafts within the hangar or the tie-down area.

2. Take Off, Landing and Assembly Zones

The primary landing zones will always be the paved runways. When air traffic conflicts with safe landing on a runway or in the few instances where a new member is being trained in grass landings, landing within secondary zones off-pavement are permitted as described below. Gliders will be moved into and out of the hangar and to and from launch zones only via hard-surfaced runways, taxiways and permitted assembly, landing or glider parking zones. Vehicles will not use the old roadbeds to get to the assembly areas except when a glider lands more than half way down a

secondary landing area. To retrieve it a vehicle is allowed to travel to the glider and back on the old roadbed tracks where those exist. For Runway 14, where no old roadbed exists in the secondary landing zone, the glider should be pushed to Taxiway E and picked up by a vehicle on the hard pavement.

All tie-down, landing, glider staging and assembly zone boundaries shall be clearly and permanently marked by SSA or ASA to prevent accidental encroachment into the habitat. These markings shall be clearly visible, safe to aircraft, and acceptable to the DPW and NYSDEC. Grass in landing zones may be mowed to a height no lower than 6-8 inches and no earlier than August 15 annually for safety reasons except when located in the runway and taxiway safety areas and other areas as proposed herein and in the 2018 Master Plan Phase I Projects EA. ASA will mark the landing zone boundaries to be *extremely* obvious to the mower with flags, poles, or other visible markers safe for aircraft. If there are patches of important nectar plants within the landing zones for which August mowing may eliminate their setting and releasing seeds, NYSDEC may designate that they be excluded from the mowing and will mark them. Because mowing at this time may prevent the little bluestem grass from setting its seed, undesirable vegetation such as spotted knapweed may invade the landing zones and become a problem. If NYSDEC feels such a problem is developing, ASA agrees to seed the landing zones and the assembly zones with native little bluestem every three years.

Runway 05

The assembly zone for this runway will be in the area to the northwest of Runway 05 starting 370 feet behind and extending for 575 feet parallel to the runway. The runway will be the primary landing zone. The secondary landing zone will be the old dirt road closest to and parallel to the runway's northwest side (along the left side as aircraft approach). The dimensions of the landing zone are 100 feet wide and 1600 feet long beginning from the southwest end of the assembly zone. The strip between the runway and the secondary landing zone from the end of the runway to the second set of runway lights may be used to access the assembly zone and as a glider staging zone for gliders waiting to be launched.

Runway 14

The assembly zone for this runway will be on the northwest side of Taxiway E as it enters the runway, extending from the RMP sign to the curve in the taxiway. The assembly zone will extend no further than 100 feet back from the taxiway. The runway will be the primary landing zone. The secondary landing zone for this runway will be an area 100 feet wide in the center of the grassy area between the runway and Taxiway E and will run for 1000 feet beginning from the end of the glider staging zone. This staging zone will be 250 feet long and 75 feet wide adjacent to the runway starting at the edge of the runway/taxiway junction and will be used to park gliders waiting to be launched. No vehicles are allowed within this staging zone. This zone will not be mowed early with the secondary landing zone. There is a great deal of habitat in this part of the airport, and off-pavement uses must be limited to those absolutely necessary for operation and safety.

Runway 23

The assembly and glider staging zone for this runway will be on the northern portion of the Taxiway D proposed to be abandoned under the 2018 Master Plan Phase I Projects EA. This zone will start at the junction of the proposed partial-parallel taxiway and the abandoned Taxiway D and extend back approximately 471 feet. The runway will be the primary landing zone. The secondary landing zone will be 100 feet wide centered on the old road bed running parallel to Runway 23 and will extend for 1000 feet starting at the end of Runway 23.

Runway 32

The assembly zone and glider staging zone will be on the southern portion of the Taxiway D (proposed to be abandoned under the 2018 Master Plan Phase I Projects EA) and will extend back approximately 431 feet. A 0.38-acre glider staging turf area at the elbow of Taxiway D at the Runway 32 end is proposed under the 2018 Master Plan Phase I Projects EA. The abandoned Taxiway C adjacent to the 0.38-acre staging area would also be used as a glider assembly and staging zone. Retroreflective markers would serve to designate the turf glider run-up area and would prevent gliders from crossing over to the taxiway and interfering with powered aircraft operations. The markers would be installed on the edge of the run-up area, between the proposed Taxiway C and the glider run-up area. The runway will be the primary landing zone. The secondary landing zone will be 100 feet wide centered on the old road bed paralleling the northeast side of the runway (to the right as craft approach the runway) and will extend for 1000 feet starting at the junction of the runway and Taxiway D.

Saratoga County DPW, in its role as the responsible entity for management of this airport, will oversee the implementation of these glider use requirements. Since these operational procedures restrict some of the past traditional use of the airport by gliders, the DPW will strive to notify motorized aircraft users to make them aware of these restrictions on glider landings and to ask for their cooperation in deferring right-of-way to gliders whenever possible.

The elements detailed within are designed to minimize taking of Karner blue and frosted elfin butterflies during operation of off-pavement gliding activities. Should the terms of this HMMP be violated by ASA members, guests, contractors or employees, operations off-pavement may be suspended.

No additional mowing (beyond that specified in Take Off, Landing and Assembly Zones above) is permitted on the airport grounds, except as specified in Section II.A. above.

III. PLANNING

The County agrees to consult with the NYSDEC and USFWS concerning and prior to any alterations of or use of Karner blue and frosted elfin butterfly habitats except in emergencies or as specifically identified in this plan. The County will notify the NYSDEC and USFWS immediately after any accident or emergency on the airfield. Emergencies would include but not be limited to spills; fires,

emergency repairs to lights, aircraft crashes or aircraft emergency landings off pavement.

The NYSDEC will conduct periodic surveys of the Karner blue and frosted elfin butterfly populations and make the results of such surveys available to the County. The County agrees to grant reasonable access to department officials or their designees for purposes of research and management of Karner blue and frosted elfin butterflies and their habitat.

The County will annually inform airport tenants about restrictions on operation of aircraft or vehicles off-pavement in undesignated areas and will be encouraged to inform pilots they are in radio contact with of these restrictions. The County will erect signs at the entrance road advising visitors and pilots that vehicles may be parked only in designated areas and may not be parked off-pavement. The County will request that a pilot notification be placed in the FAA Airport Facility Directory regarding restrictions and unauthorized off pavement operations at the Saratoga County Airport.

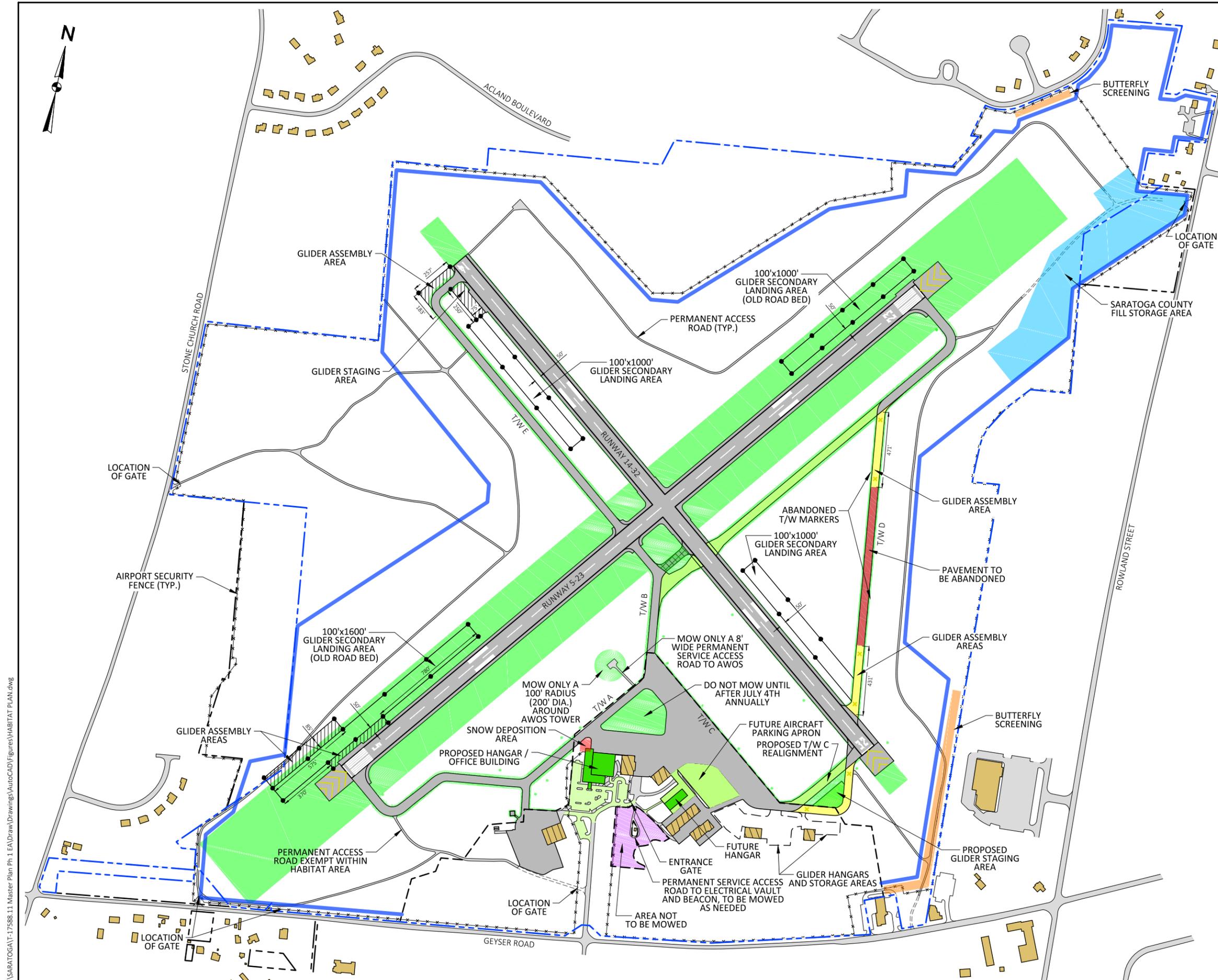
ASA will be responsible for informing all its members of the operational conditions at the airport. Any non-members towed by ASA will also be informed by the club of landing/assembly/tie down restrictions.

IV. DOCUMENTATION

In the event of an emergency, gliders and other aircraft will land anywhere on the airport that will permit a safe landing. Circumstances necessitating the need for any emergency landings in non-authorized areas will be detailed in a written report to be submitted to the DPW Commissioner and NYSDEC Endangered Species Unit Leader, 625 Broadway, Albany, NY 12233-4754 within two weeks of the event.

Glider clubs at the airport will keep records of all off-pavement landings during the gliding season and make a report to the DPW and NYSDEC Endangered Species Unit no later than December 31 each year. These records will also be made available for review by the USFWS, should they be requested. These records shall include the dates and landing zones used.

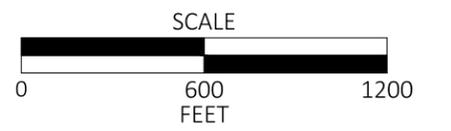
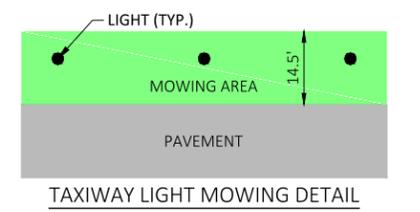
This HMPP constitutes a feature of major significance to the protection and management of the Karner blue butterfly in the BA, and within the USFWS BO to FAA. This HMPP will be a living document and will be reviewed periodically. At any point during its effective period, it may be amended upon approval of the County and glider clubs, if applicable, and the concurrence of the NYSDEC and USFWS. Any more than minor updates would be reflected in an amendment to the USFWS BO and/or a NYSDEC Incidental Take Permit.



LEGEND

- MOWING AREA
- AREA NOT TO BE MOWED
- BUTTERFLY SCREENING
- SNOW STORAGE AREA
- SARATOGA COUNTY FILL STORAGE AREA
- GLIDER ASSEMBLY / STAGING AREA
- PROPOSED AIRSIDE PAVEMENT
- PROPOSED GLIDER STAGING AREA
- TO BE ABANDONED
- TO BE REMOVED
- LOCATION OF FLAGS FOR LANDING, ASSEMBLY, STAGING AREAS AND MOWING LIMITS
- LIMITS OF HABITAT
- SECURITY FENCE
- COUNTY PROPERTY
- AIRPORT PROPERTY
- EXEMPT ZONE

- NOTES:**
1. REFER TO THE HABITAT MANAGEMENT AND PROTECTION PLAN FOR MORE DETAILED HABITAT MANAGEMENT INFORMATION.
 2. ALL GLIDER SECONDARY LANDING AREAS TO AVOID VASI'S.
 3. MOWING IS TO ONLY BE PERFORMED BY SARATOGA COUNTY AS WORK LOAD PERMITS.
 4. GRASS IN LANDING AREAS WILL BE MOWED TO A HEIGHT NO LOWER THAN 6-8 INCHES AND NO EARLIER THAN AUGUST 15 ANNUALLY. THE LOCATION OF FLAGS FOR MOWING AS SHOWN ON THIS PLAN ARE TO BE PLACED BY GLIDER CLUBS.
 5. FLAGS FOR STAGING AND ASSEMBLY AREAS ARE TO BE PLACED BY THE GLIDER CLUBS PRIOR TO THE BEGINNING OF EACH GLIDER SEASON. FLAGS ARE TO BE MAINTAINED FOR THE DURATION OF THE GLIDER SEASON.
 6. NON-EXEMPT AREAS OTHER THAN ITEM 4 ABOVE CANNOT BE MOWED UNTIL AFTER OCTOBER 15TH ANNUALLY.



SARATOGA COUNTY AIRPORT
SARATOGA COUNTY, NEW YORK

HABITAT MANAGEMENT AND PROTECTION PLAN

SCALE: 1" = 600'	DATE: MAY 2018	FIGURE: 1
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McFarland Johnson

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