BIOLOGICAL ASSESSMENT OF THE AIRPORT SURPLUS CANAL RELOCATION PROJECT SALT LAKE COUNTY, UTAH

Prepared for:

Attn: Patty Nelis
Airport Environmental Manager
P.O. Box 145550
Salt Lake City, UT 84114
(801) 575-2400

Prepared by:

154 East 14075 South
Draper, UT 84020
801-495-2224

February 2023

TABLE OF CONTENTS

Page

LIST OF APPENDICES

LIST OF TABLES

TABLE OF CONTENTS
(continued)

ACRONYMS & ABBREVIATIONS

BMP – Best Management Practices
BC&A – Bowen Collins & Associates
EPA – Environmental Protection Agency
HNTB – HNTB Corporation
NA – Not Applicable
TES – Threatened and Endangered Species
UNHP – Utah Natural Heritage Program
USACE – US Army Corps of Engineers
USFWS/Service – U.S. Fish & Wildlife Service

1.0 INTRODUCTION

This Biological Assessment has been prepared by Bowen Collins & Associates (BC&A), on behalf of the Salt Lake City International Airport (Airport) for the Airport Surplus Canal Relocation Project (Project) in Salt Lake City, Utah (See Site Location Maps, Appendix A). The Airport is planning to relocate the North Point Canal Conveyance System and the Surplus Canal within this area to help create more space for employee parking.

1.1 Purpose

The purpose of this Biological Assessment (BA) is to assess the potential environmental impacts of the proposed projects on federally-listed plant and animal species in accordance with the requirements of Section 7 of the Endangered Species Act (ESA; 16 U.S.C. 460 et seq., as amended) (See official species lists for each site in Appendix B). The federal action agency is the US Army Corps of Engineers (USACE) as this project is expected to require permitting as part of Section 404 of the Clean Water Act.

The objective of the proposed action is to relocate a section of the North Point Canal Conveyance System and Surplus Canal further south to align with I-80 West. Additional details about the proposed action are included further into this report but in general the project includes expanding airport employee parking. Based on the U.S. Fish & Wildlife Service (Service) Information for Planning and Consultation (IPAC) online tool this project has potential to affect the ESA-listed species listed in Table 1 below that may occur in this area.

Table 1
ESA-Listed Species & Critical Habitat

Common Name	Scientific Name	Critical Habitat
Ute Ladies' Tresses	*Spiranthes diluvialis*	Not Designated
Monarch Butterfly	*Danaus plexippus*	Not Designated

This BA, prepared by BC&A, addresses the proposed action in compliance with Section 7 of the ESA. Section 7 assures that, through consultation (or conferencing for proposed species) with the Service, federal actions do not jeopardize the continued existence of any threatened, endangered or proposed species, or result in the destruction or adverse modification of critical habitat.

1.2 Project Responsibility

Project implementation responsibilities are as follows.

Lead Federal Agency:

Federal Aviation Administration (FAA)
Kandice Krull (Environmental Protection Specialist)
26805 E. 68th Ave, Ste 224
Denver, Colorado 80249-6339

Project Sponsor:

SLC International Airport
Patty Nelis (Airport Environmental Manager)
P.O. Box 145550
Salt Lake City, UT 84114

Design Engineer:

HNTB – Brian Bangerter (P.E.)
7730 S Union Park Avenue, Suite 110
Midvale, Utah 84047

Consulting Biologist:

Bowen Collins & Associates – Merissa Davis (Senior Biologist)
154 East 14075 South
Draper, Utah 84020

1.3 Federal Consultation to Date

Due to lack of habitat and little potential for any threatened or endangered species (TES) to be present in the action area, no pre-consultation with the Service has been conducted.

2.0 PROJECT DESCRIPTION

2.1 Background

The Project Site is in Salt Lake City, Utah. The property is approximately 280 acres which encompasses the abandoned Wingpointe Golf Course between the airport and I-80 West. The golf course closed in 2015 and has since been bought by the Salt Lake City International Airport.

2.2 Action

The airport is planning on expanding south into the Project Site. The expansion includes extending a taxiway, adding an employee screening facility, and expanding the employee parking lot (See Plan Drawings, Appendix D). The North Point Canal Conveyance System, Surplus Canal, and utility lines will be relocated to the south to accommodate these changes. Any remaining water bodies within the project area will be filled. Actions associated with the proposed development include the following:

Canal Relocation

- Clearing and grubbing
- Excavating/Digging of new canal alignment
- Compaction
- Concrete placement

Parking

- Drain ponds
- Clearing and grubbing
- Grading
- Site Compaction
- Utility, lighting, signage, and drainage construction/installation
- Installation of water quality facilities
- Concrete/Asphalt placement

End-Around Taxiway

- Clearing and grubbing
- Concrete demolition
- Grading
- Site compaction
- Utility, lighting, signage, and drainage construction/installation
- Installation of water quality facilities
- Concrete placement

2.3 Schedule

Pending environmental clearances and permits, it is anticipated that relocation of the canal and the associated construction will potentially begin in the fall of 2025.

2.4 Conservation Commitments

To minimize impacts and maximize conservation measures the Airport anticipates coordinating with the USACE on the planning and development of the project, as well as by following Best Management Practices (BMPs). Specific measures and plans known at this time include the following:

1. If any trees are expected to be removed as part of the project construction during nesting and breeding season (April – August) a qualified biologist will conduct surveys no more than five days prior to the commencement of work. If active nests are found during surveys, tree removal will be postponed until the young have fledged or the nest is no longer active as determined by the biologist.
2. Equipment will be cleaned to remove noxious weeds/seeds and petroleum products prior to moving on site. Additionally, any chemical pollutants produced during the construction activities shall be disposed of according to Best Management Practices.
3. Fueling machinery will occur off site or in a confined, designated area to prevent spillage into waterways and wetlands.
4. Materials will not be stockpiled in the riparian areas or other sensitive areas such as wetlands.
5. Fill materials will be free of fines, waste, pollutants, and noxious weeds/seeds.
6. Excavated soils will be sorted into mineral soil and topsoil. When backfilling a disturbed site, topsoil will be placed on top to provide a seed bed for native plants.
7. Excavated material and construction debris may not be wasted in any stream channel or placed in flowing waters or adjacent wetlands; this will include material such as grease, oil, joint coating, or any other possible pollutants. Excess material must be wasted at an upland site away from any channel.

3.0 ACTION AREA

The action area includes about 280 acres in Salt Lake City, Utah. The south and west borders of the Action Area run along the I-80 West off ramp that merges with Terminal Drive. Directly to the north of the area are internal airport roads including Crossbar Road and 3700 West. These roads border both the current North Point Canal Conveyance System and Surplus Canal to the south and airport employee parking lots to the north. The west side of the action area follows the Surplus Canal passing under Terminal Drive to the west and under I-80 West to the east. All staging will be contained within the action area boundaries and access will be from existing airport roads.

3.1 Baseline Conditions

The majority of the site is abandoned golf course green from the former Wingpointe Golf Course. Some dilapidated golf cart paths still remain, but the native vegetation has reclaimed the greens. Wetland vegetation grows near the water bodies, and a wet meadow is on the eastern half of the action area. North Point Canal Conveyance System crosses over the Surplus Canal and becomes a meandering stream and an excavated pond within the old course. Another manmade pond is located just west of the canal near Terminal Drive. The vegetation in the uplands is mostly upland grasses and forbs dominated by the invasive cheatgrass (*Bromus tectorum*) and tumble mustard (S*isymbrium altissimum*) with wetland vegetation dominated by common reeds (*Phragmites australis*), narrowleaf willows (*Salix exigua*), and saltgrass (*Distichlis spicata*). The topography of the property is relatively flat with some shallow rolling hills that are residual from the golf course development.

Beyond the project area, the landscape is very developed and highly trafficked. There is abundant ground and air traffic due to the site's immediate connection to the airport and I-80 West. Due to high travel demand, the Airport is currently preparing for Phase 2 of its four-phase renovation and expansion. This expansion began in 2014 by renovating parking lots and ground travel services. It will continue to expand Concourses A and B and add an additional tunnel to connect the two. South of the project area beyond I-80 lies a sprawling industrial park.

The Airport adheres to a Pesticide Discharge Management Plan (2023) per the Environmental Protection Agency (EPA), an Integrated Pest Management Plan (2018), and a Wildlife Hazard Management Plan (2004) which dictate safety practices for airport operations while protecting wildlife (See Appendix F).

4.0 LISTED SPECIES & CRITICAL HABITAT IN THE ACTION AREA

The purpose of this section is to identify and describe protected species and critical habitat that may be present within the action area. Table 2 below includes all potential species and designated critical habitat as listed on the official Service list of TES that may occur in or be affected by the proposed project (See Official Species List, Appendix B).

Table 2
Potential TES Species & Habitat in the Action Area

Species	Status	Habitat Requirements	Habitat in Action Area	Critical Habitat in Action Area
Insects				
Monarch Butterfly *Danaus plexippus*	Candidate	Open areas with flowering plants and milkweed for breeding.	None	None
Plants				
Ute Ladies'-tresses *Spiranthes diluvialis*	Threatened	Found in moist to very wet meadows, along streams and ditches, in abandoned stream meanders, and near springs, seeps, and lake shores. In Utah, elevation range: 4,200-7,000 feet	None	None

A site visit was conducted to assess habitat suitability and/or presence/absence of species by BC&A employees, Merissa Davis and Cara Glabau, on October 27th, 2022. Although wetlands were

A site visit was conducted to assess habitat suitability and/or presence/absence of species by BC&A employees, Merissa Davis and Cara Glabau, on October 27th, 2022. Although wetlands were encountered, vegetation was either tall and thick phragmites stands or dominated by saltgrass (*Distichlis spicata*) and characteristic of highly salty soils. Both of those conditions are unsuitable for Ute Ladies'-tresses which does not thrive in saline soils or in shady conditions with competition from dense, tall vegetation. No milkweed plants were observed, a plant species monarch butterflies are dependent on for breeding, so monarch butterflies are not expected to be present for breeding. Additional flowering plants were also not prevalent as a food source for butterflies (See Site Photo, Appendix E).

The State of Utah has no record of any TES within a half-mile of the action area (See Utah Natural Heritage Program Species Report, Appendix C) and based on the site visit, it was determined that habitat was not present for either monarch butterfly (*Danaus plexippus*) or Ute ladies'-tresses (*Spiranthes diluvialis*). As such, these species are not expected to be present and will not be reviewed further in this BA because the proposed action will have *no effect* on them.

5.0 CONCLUSIONS & DETERMINATION OF EFFECTS

The Project will ideally begin construction in the fall of 2025 pending environmental clearances, permitting, contracts and other agreements. Two potential species were identified in the action area as threatened or candidate for listing by the USFWS IPAC system. No critical habitat exists for either of those species and no suitable habitat was identified on site. Effect determinations for all species are shown in Table 3 below.

Table 3
Determinations for ESA-Listed Species Potentially Occurring in the Action Area

Species	Determination
Monarch Butterfly *Danaus plexippus*	No Effect
Ute Ladies'-tresses *Spiranthes diluvialis*	No Effect

LITERATURE CITED

Salt Lake City Department of Airports. 2023. *Pesticide Discharge Management Plan.* Salt Lake City Utah.

Salt Lake City International Airport. 2018. *Integrated Pest Management Plan.* Salt Lake City Utah.

Salt Lake City International Airport. 2004. *Salt Lake City International Airport Certification Manual, Appendix B-1: Wildlife Hazard Management Plan..* Salt Lake City Utah.

U.S. Fish & Wildlife Service (USFWS). 2021. *Western Monarch Butterfly Conservation Recommendations.* April 2021.

USFWS. 2022a. *Information, Planning, and Conservation System (IPAC).* https://ecos.fws.gov/ipac/location/index. Accessed online September 10, 2022.

USFWS. 2022b. *List of TES that may occur in proposed project location, and/or may be affected by your proposed project*. Project Code: 2023-0020742 Accessed online December 1, 2022.

USFWS. 2022c. *Species Profile for Monarch butterfly (Danaus plexippus).* https://ecos.fws.gov/ecp/species/9743.

USFWS. 2022d. *Species Profile for Ute ladies'-tresses (Spiranthes diluvialis)*. https://ecos.fws.gov/ecp/species/2159.

Utah Natural Heritage Program (UNHP). 2022. *Online Species Search Report # 13952*. December 1, 2022.

APPENDIX A

Site Location Maps

Salt Lake City
International Airport

LEGEND

Project Area - 280 Acres

215

80

154

Imagry: Hexagon 2018
Figure Created By
Cara Glabau 2/16/23

SCALE: 1 in. = 1,000 ft.

NORTH: NORTH

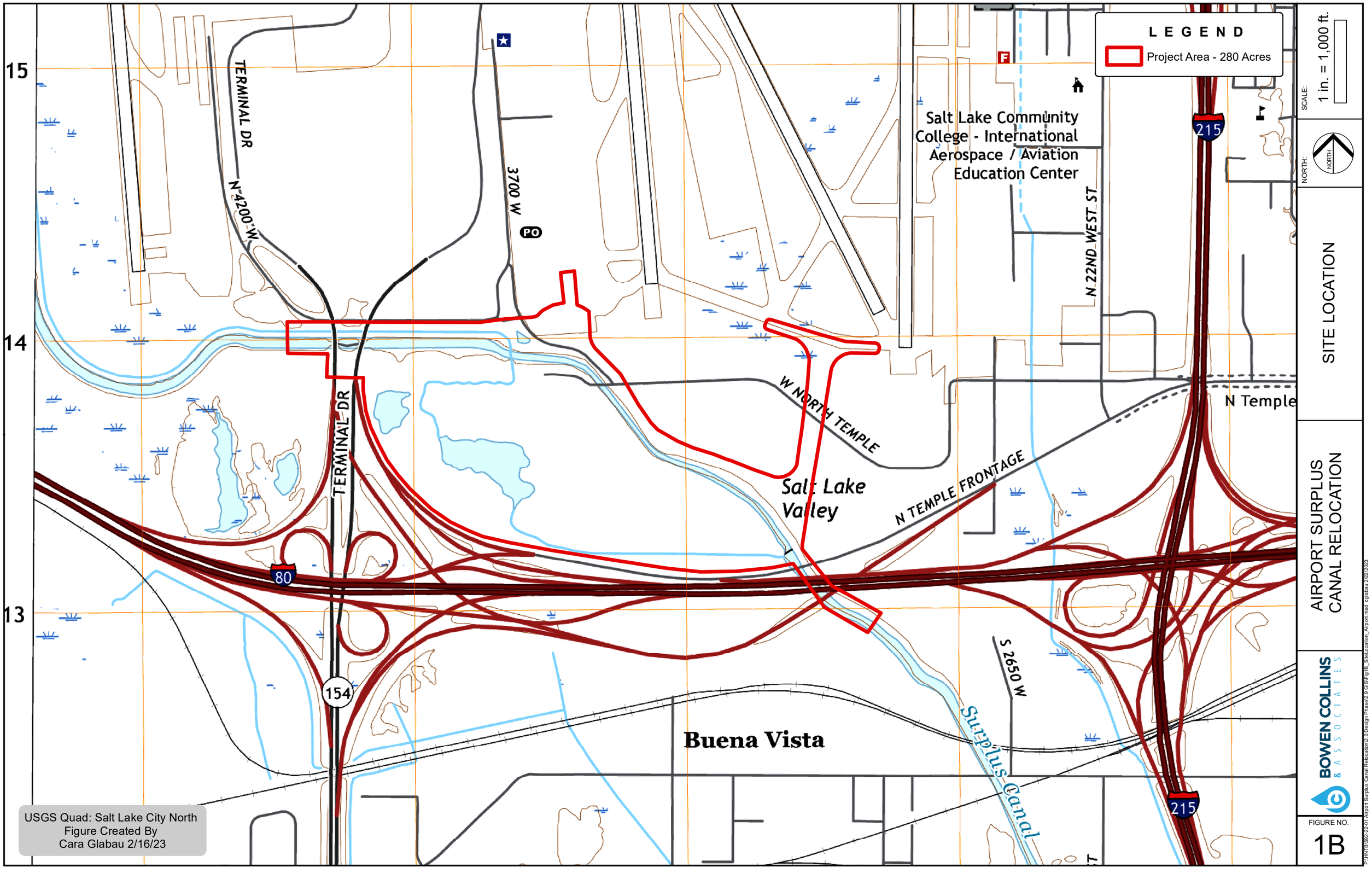
SITE LOCATION

AIRPORT SURPLUS
CANAL RELOCATION

BOWEN COLLINS & ASSOCIATES

FIGURE NO.
1A

P:\HNTB\5922-22\01 Airport Surplus Canal Relocation\2.0 Design Phase\2.9 GIS\Fig1A_SiteLocation_Airport.mxd cglabau 2/22/2023


LEGEND
Project Area - 280 Acres
SCALE:
1 in. = 1,000 ft.
NORTH:
NORTH
SITE LOCATION
AIRPORT SURPLUS
CANAL RELOCATION
BOWEN COLLINS
& ASSOCIATES
FIGURE NO.
1B
15
14
13
TERMINAL DR
N 4200 W
3700 W
PO
F
Salt Lake Community
College - International
Aerospace / Aviation
Education Center
N 22ND WEST ST
215
N Temple
W NORTH TEMPLE
N TEMPLE FRONTAGE
Salt Lake
Valley
80
154
Buena Vista
S 2650 W
Surplus Canal
215
USGS Quad: Salt Lake City North
Figure Created By
Cara Glabau 2/16/23
P:\INT\BS\22-2201 Airport Surplus Canal Relocation\2.0 Design Phase\2.9 GIS\Fig1B_SiteLocation_Airport.mxd cglabau 2/22/2023

APPENDIX B

Official USFWS TES Species List

United States Department of the Interior

FISH AND WILDLIFE SERVICE
Utah Ecological Services Field Office
2369 West Orton Circle, Suite 50
West Valley City, UT 84119-7603
Phone: (801) 975-3330 Fax: (801) 975-3331

In Reply Refer To:
Project Code: 2023-0048677
Project Name: Surplus Canal Relocation

February 23, 2023

Subject: List of threatened and endangered species that may occur in your proposed project location or may be affected by your proposed project

To Whom It May Concern:

The enclosed species list identifies threatened, endangered, proposed and candidate species, as well as proposed and final designated critical habitat, that may occur within the boundary of your proposed project and/or may be affected by your proposed project. The species list fulfills the requirements of the U.S. Fish and Wildlife Service (Service) under section 7(c) of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 *et seq.*).

New information based on updated surveys, changes in the abundance and distribution of species, changed habitat conditions, or other factors could change this list. Please feel free to contact us if you need more current information or assistance regarding the potential impacts to federally proposed, listed, and candidate species and federally designated and proposed critical habitat. Please note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the Act, the accuracy of this species list should be verified after 90 days. This verification can be completed formally or informally as desired. The Service recommends that verification be completed by visiting the ECOS-IPaC website at regular intervals during project planning and implementation for updates to species lists and information. An updated list may be requested through the ECOS-IPaC system by completing the same process used to receive the enclosed list.

The purpose of the Act is to provide a means whereby threatened and endangered species and the ecosystems upon which they depend may be conserved. Under sections 7(a)(1) and 7(a)(2) of the Act and its implementing regulations (50 CFR 402 *et seq.*), Federal agencies are required to utilize their authorities to carry out programs for the conservation of threatened and endangered species and to determine whether projects may affect threatened and endangered species and/or designated critical habitat.

A Biological Assessment is required for construction projects (or other undertakings having similar physical impacts) that are major Federal actions significantly affecting the quality of the human environment as defined in the National Environmental Policy Act (42 U.S.C. 4332(2)(c)). For projects other than major construction activities, the Service suggests that a biological

evaluation similar to a Biological Assessment be prepared to determine whether the project may affect listed or proposed species and/or designated or proposed critical habitat. Recommended contents of a Biological Assessment are described at 50 CFR 402.12.

If a Federal agency determines, based on the Biological Assessment or biological evaluation, that listed species and/or designated critical habitat may be affected by the proposed project, the agency is required to consult with the Service pursuant to 50 CFR 402. In addition, the Service recommends that candidate species, proposed species and proposed critical habitat be addressed within the consultation. More information on the regulations and procedures for section 7 consultation, including the role of permit or license applicants, can be found in the "Endangered Species Consultation Handbook" at:

http://www.fws.gov/endangered/esa-library/pdf/TOC-GLOS.PDF

Migratory Birds: In addition to responsibilities to protect threatened and endangered species under the Endangered Species Act (ESA), there are additional responsibilities under the Migratory Bird Treaty Act (MBTA) and the Bald and Golden Eagle Protection Act (BGEPA) to protect native birds from project-related impacts. Any activity, intentional or unintentional, resulting in take of migratory birds, including eagles, is prohibited unless otherwise permitted by the U.S. Fish and Wildlife Service (50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)). For more information regarding these Acts see https://www.fws.gov/birds/policies-and-regulations.php.

The MBTA has no provision for allowing take of migratory birds that may be unintentionally killed or injured by otherwise lawful activities. It is the responsibility of the project proponent to comply with these Acts by identifying potential impacts to migratory birds and eagles within applicable NEPA documents (when there is a federal nexus) or a Bird/Eagle Conservation Plan (when there is no federal nexus). Proponents should implement conservation measures to avoid or minimize the production of project-related stressors or minimize the exposure of birds and their resources to the project-related stressors. For more information on avian stressors and recommended conservation measures see https://www.fws.gov/birds/bird-enthusiasts/threats-to-birds.php.

In addition to MBTA and BGEPA, Executive Order 13186: *Responsibilities of Federal Agencies to Protect Migratory Birds*, obligates all Federal agencies that engage in or authorize activities that might affect migratory birds, to minimize those effects and encourage conservation measures that will improve bird populations. Executive Order 13186 provides for the protection of both migratory birds and migratory bird habitat. For information regarding the implementation of Executive Order 13186, please visit https://www.fws.gov/birds/policies-and-regulations/executive-orders/e0-13186.php.

We appreciate your concern for threatened and endangered species. The Service encourages Federal agencies to include conservation of threatened and endangered species into their project planning to further the purposes of the Act. Please include the Consultation Code in the header of this letter with any request for consultation or correspondence about your project that you submit to our office.

Attachment(s):

- Official Species List

OFFICIAL SPECIES LIST

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

This species list is provided by:

Utah Ecological Services Field Office
2369 West Orton Circle, Suite 50
West Valley City, UT 84119-7603
(801) 975-3330

PROJECT SUMMARY

Project Code: 2023-0048677
Project Name: Surplus Canal Relocation
Project Type: Airport - Maintenance/Modification
Project Description: The Salt Lake International Airport is expanding employee parking into an abandoned golf course and will be relocating the surplus canal as part of the proposed project. They anticipate US Army Corps of Engineers permitting for the undertaking.

Project Location:

The approximate location of the project can be viewed in Google Maps: https://www.google.com/maps/@40.7691222,-111.97784539486317,14z

Counties: Salt Lake County, Utah

ENDANGERED SPECIES ACT SPECIES

There is a total of 2 threatened, endangered, or candidate species on this species list.

Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries[1], as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area under this office's jurisdiction. Please contact the designated FWS office if you have questions.

---

1. NOAA Fisheries, also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

INSECTS

NAME	STATUS
Monarch Butterfly *Danaus plexippus* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/9743	Candidate

FLOWERING PLANTS

NAME	STATUS
Ute Ladies'-tresses *Spiranthes diluvialis* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/2159	Threatened

CRITICAL HABITATS

THERE ARE NO CRITICAL HABITATS WITHIN YOUR PROJECT AREA UNDER THIS OFFICE'S JURISDICTION.

IPAC USER CONTACT INFORMATION

Agency: Bowen Collins & Associates
Name: Merissa Davis
Address: 154 East 14075 South
City: Draper
State: UT
Zip: 84020
Email mdavis@bowencollins.com
Phone: 8014952224

LEAD AGENCY CONTACT INFORMATION

Lead Agency: Army Corps of Engineers

APPENDIX C

Utah Natural Heritage Program Species Report

Utah Division of Wildlife Resources
Utah Natural Heritage Program
1594 W. North Temple
PO Box 146301
Salt Lake City, UT 84116

Report Number: 14118
February 23, 2023

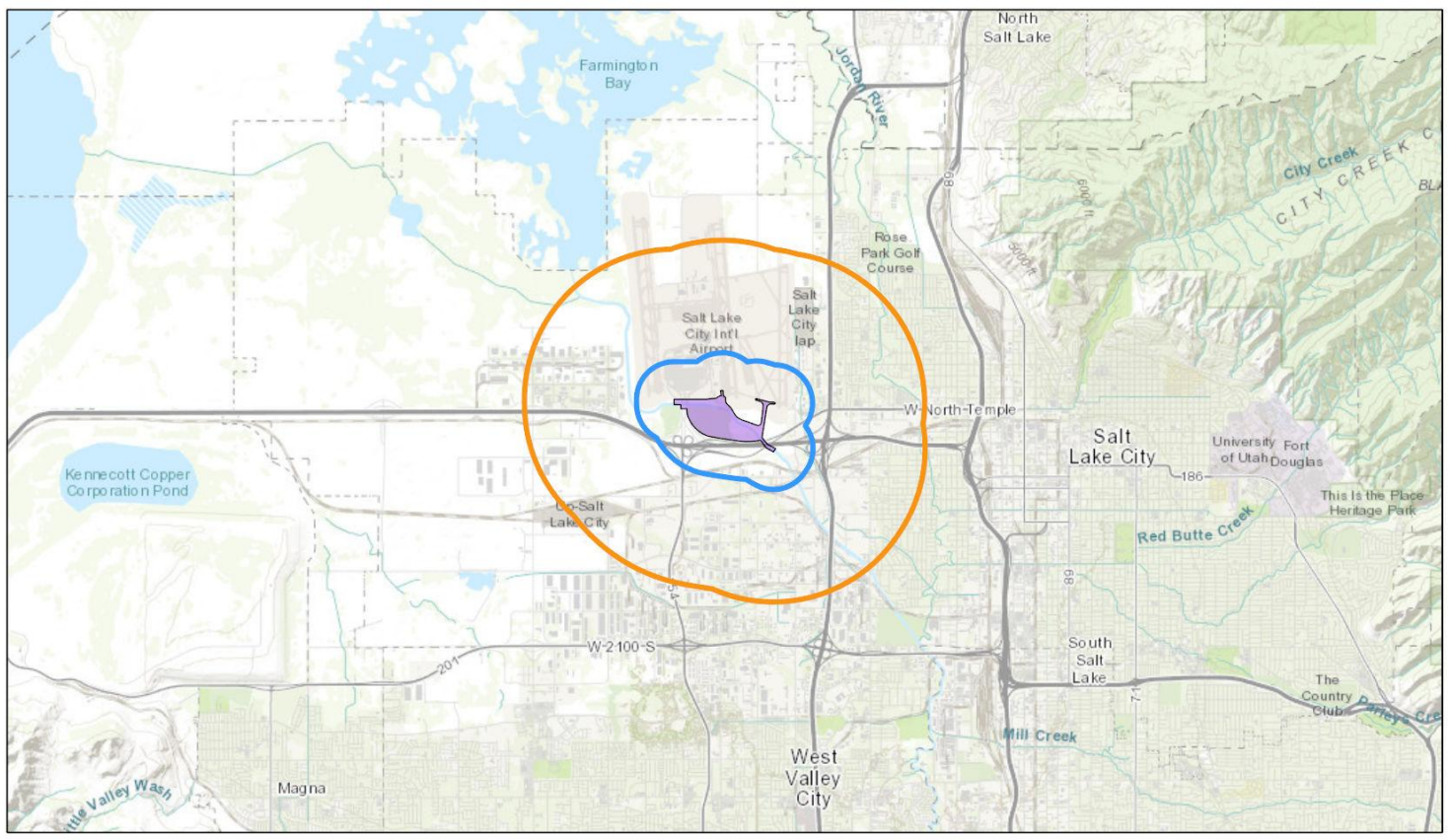
Utah Natural Heritage Program Online Species Search Report

Project Information

Project Name
Surplus Canal Relocation Project

Project Description
The Salt Lake International Airport is expanding employee parking into an abandoned golf course and will be relocating the surplus canal as part of the proposed project. They anticipate US Army Corps of Engineers permitting for the undertaking.

Location Description
South of existing airport (See Map)



Animals within a ½ mile radius

Common Name	Scientific Name	State Status	U.S. ESA Status	Last Observation Year
Burrowing Owl	Athene cunicularia	SGCN		1995
Northern Leopard Frog	Lithobates pipiens	SGCN		1979

Plants within a ½ mile radius

Common Name	Scientific Name	State Status	U.S. ESA Status	Last Observation Year
No Species Found				

Animals within a 2 mile radius

Common Name	Scientific Name	State Status	U.S. ESA Status	Last Observation Year
Burrowing Owl	Athene cunicularia	SGCN		1995
Least Chub	Iotichthys phlegethontis	SGCN		2018
Northern Leopard Frog	Lithobates pipiens	SGCN		1979
Western Yellow-billed Cuckoo	Coccyzus americanus occidentalis	SGCN	LT	1992
White-faced Ibis	Plegadis chihi	SGCN		1997

Plants within a 2 mile radius

Common Name	Scientific Name	State Status	U.S. ESA Status	Last Observation Year
No Species Found				

Definitions

State Status

SGCN	Species of greatest conservation need listed in the Utah Wildlife Action Plan

U.S. Endangered Species Act

LE	A taxon that is listed by the U.S. Fish and Wildlife Service as "endangered" with the probability of worldwide extinction
LT	A taxon that is listed by the U.S. Fish and Wildlife Service as "threatened" with becoming endangered
LE;XN	An "endangered" taxon that is considered by the U.S. Fish and Wildlife Service to be "experimental and nonessential" in its designated use areas in Utah
C	A taxon for which the U.S. Fish and Wildlife Service has on file sufficient information on biological vulnerability and threats to justify it being a "candidate" for listing as endangered or threatened
PT/PE	A taxon "proposed" to be listed as "endangered" or "threatened" by the U.S. Fish and Wildlife Service

Disclaimer

The information provided in this report is based on data existing in the Utah Division of Wildlife Resources' central database at the time of the request. It should not be regarded as a final statement on the occurrence of any species on or near the designated site, nor should it be considered a substitute for on-the-ground biological surveys. Moreover, because the Utah Division of Wildlife Resources' central database is continually updated, any given response is only appropriate for its respective request.

The UDWR provides no warranty, nor accepts any liability, occurring from any incorrect, incomplete, or misleading data, or from any incorrect, incomplete, or misleading use of these data.

The results are a query of species tracked by the Utah Natural Heritage Program, which includes all species listed under the U.S. Endangered Species Act and species on the Utah Wildlife Action Plan. Other significant wildlife values might also be present on the designated site. Please contact UDWR's regional habitat manager if you have any questions.

For additional information about species listed under the Endangered Species Act and their Critical Habitats that may be affected by activities in this area or for information about Section 7 consultation under the Endangered Species Act, please visit https://ecos.fws.gov/ipac/ or contact the U.S. Fish and Wildlife Service Utah Ecological Services Field Office at (801) 975-3330 or utahfieldoffice_esa@fws.gov.

Please contact our office at (801) 538-4759 or habitat@utah.gov if you require further assistance.

Your project is located in the following UDWR region(s): Central region

---

Report generated for:
Merissa Davis
Bowen Collins & Associates
154 East 14075 South
Draper, UT 84020
(801) 495-2224
mdavis@bowencollins.com

UTAH DNR WILDLIFE RESOURCES

APPENDIX D

Plan Figures

Placeholder
(Plan Drawings to be added in at the 60% Design Stage)

APPENDIX E

Site Photos

SCALE: 1 in. = 500 ft.

NORTH: NORTH

PHOTO POINTS

AIRPORT SURPLUS
CANAL RELOCATION

BOWEN COLLINS & ASSOCIATES

FIGURE NO.
6

P:\HNTB\5922-22401 Airport Surplus Canal Relocation\2.0 Design Phase\2.9 GIS\Fig6_BA_PhotoPoints.mxd cglabau 2/23/2023

Airport Surplus Canal Relocation
SLC International Airport

Photo Point 1

Photo Point 2

Airport Surplus Canal Relocation
SLC International Airport

Photo Point 3

Photo Point 4

Airport Surplus Canal Relocation
SLC International Airport

Photo Point 5

Photo Point 6

Airport Surplus Canal Relocation
SLC International Airport

Photo Point 7

Photo Point 8

Airport Surplus Canal Relocation
SLC International Airport

Photo Point 9

Photo Point 10

Airport Surplus Canal Relocation
SLC International Airport

Photo Point 11

Photo Point 12

Airport Surplus Canal Relocation
SLC International Airport

Photo Point 12

Photo Point 13

Airport Surplus Canal Relocation
SLC International Airport

Photo Point 14

Photo Point 15

Airport Surplus Canal Relocation
SLC International Airport

Photo Point 16

Photo Point 17

Airport Surplus Canal Relocation
SLC International Airport

Photo Point 18

Photo Point 19

APPENDIX F

Airport Wildlife & Pest Management Plans

APPENDIX B

Wildlife Hazard Management Plan

(Reference Section 337)

Original Date: _____ FAA Approval: _____

Revision Date: _____

Wildlife Hazard Management Plan
Salt Lake City Department of Airports

1) Authority for Implementing the Wildlife Plan

The authority for implementing the Salt Lake City Department of Airport's (SLCDA) Wildlife Hazard Management Plan (WHMP) is the responsibility of the Airport Operations Division under the direction of the Executive Director of Airports. Other Airport departments that have a role in the plan include the following.

Airport Planning and Engineering

- Responsible for incorporating reduction of wildlife attractants in landscape design by reducing the number of trees planted and selecting species least desirable to wildlife.
- Design of water retention ponds that automatically pump standing water off of the airfield.
- Design of bridges to have enclosed understructure to prevent roosting and nesting areas.

Airport Maintenance

- Responsible for the maintenance of the airfield, which includes field mowing to keep the grass maintained at a length least desirable for wildlife.
- Tree removal of nesting and roosting habitat.
- Maintaining the airport's 8' perimeter fence to keep mammals off the airfield.
- Small scale pesticide and herbicide spraying on the airport.
- Installation of netting to prevent roosting and nesting.
- Filling and grading of low areas that collect standing water.
- Grading of gopher mounds and operation of the "gophernator."

Vehicle Maintenance Shop

- Responsible for repair and maintenance of the Airport's vehicles and sirens used for wildlife control and the Airport's propane-powered bird cannons.

Airport Police

- Under direct supervision of the Airport Duty Manager, are responsible for emergency lethal removal of large mammals on the airport if USDA Wildlife Services or Utah State Division of Wildlife Resources personnel are unavailable.

All above departments assist by reporting wildlife hazards observed on the airport to Airport Operations.

1.1) Outside Agencies. Departments outside the Airport that assist in the WHMP include the following:

USDA Wildlife Services. Is under contract by the Airport and is responsible to:

- assist in monitoring wildlife use patterns;
- identify aircraft hazards on the airport and surrounding property;
- coordinate needed insect and rodent control;
- provide supplemental hazing or coordinated population reduction;
- provide regular wildlife and firearms training;
- provide expert legal testimony;
- advise on future expansion concerning wildlife; and
- assist in removal of deer and other wildlife from airport property.

Utah Division of Wildlife Resources. Is responsible for:

- issuing state wildlife depredation permits;
- assisting in removal of deer and other large mammals from airport property;
- providing bird counts and estimated waterfowl numbers in wetlands surrounding the airport; and
- providing advice on various wildlife issues.

U.S. Fish and Wildlife Service. Is responsible for:

- issuing depredation and salvage permits to the Airport to control federal migratory birds listed in the permit; and
- removing dead migratory birds as a result of bird strikes on the airport.

2) Ecological Study

USDA Wildlife Services began a wildlife hazard assessment in 1991, which resulted in a long-term ecological study that continued through 1997. During the study, wildlife species, activities, and attractants were documented with recommendations made to reduce wildlife hazards on the airport. The recommendations included controlling standing water and vegetation along canals, discontinuing livestock grazing and agricultural farming, tree, brush and construction debris removal, and posting no feeding signs in the public observation area.

To date, all recommendations listed in the study have been completed and the Airport continues to regularly consult with USDA Wildlife Services to improve habitat modification and reduce wildlife hazards (Attachment 2).

3) Habitat Management

It is the policy of the Airport to minimize, to the extent practical, the development of new wildlife habitat and eliminate existing habitat and land uses which attract birds and other wildlife. When determined to be a problem, the following actions will be taken to eliminate habitat and land uses identified as contributing to wildlife hazards. These changes will be made consistent with available resources and the Airport's ability to influence land use decisions.

- Turf will be maintained in such a manner as possible that it will not constitute an attraction to wildlife.
- Areas of standing water that are identified as strong wildlife attractants that are frequented by shorebird and other waterfowl will be drained or filled.
- Storm water detention basins will be pumped out in a timely fashion to reduce the attraction to wildlife.
- Trees, brush, and vegetation along canals and other areas that are found to provide food, shelter, or roosting facilities for wildlife will be cleared.
- Water in canals that are considered to be strong wildlife attractants will be drained, covered, or have wire stretched above the canal in a zig zag pattern to discourage wildlife use.
- Small mammal populations will be monitored and direct control will be initiated if necessary.
- Buildings will be made as uninhabitable as possible as nesting or roosting sites with netting, bird spikes, or other suitable materials.
- Waste receptacles containing food that may attract wildlife will be eliminated or rendered inaccessible, and "no feeding" signs will be posted in areas where tenants or the public may provide food for wildlife.
- Construction debris that may provide cover for small mammals and perching sites for birds will be removed before it becomes an attractant.
- Specialists will monitor insect populations, and insecticides will be applied if necessary.
- Agricultural practices and livestock grazing are not allowed on the airport in any area that may attract wildlife and affect aircraft operations. Grazing and agricultural practices on airport property away from the airfield may be allowed on a case by case basis after review.

4) Species Specific Population Management

4.1) **Canada Geese**. Canada geese are a species of serious concern and often congregate on the airport and surrounding wetlands and golf courses

throughout the year. Canada geese are likely to cause damage to aircraft due to their size and flocking behavior.

Attractants:

- Much of the geographic area near the airport is wetland marshes that contain many private waterfowl hunting clubs that manage the habitat to promote waterfowl numbers. The Great Salt Lake, private waterfowl hunting clubs, and several wildlife refuges north of the airport contribute to very large waterfowl numbers near the airport. Geese often attempt to use the airport as a refuge to avoid hunting pressure from surrounding hunting clubs. The airport golf course and surplus canal at the south end of the airport are a strong attractant to geese with open water most of the year and acres of grass that geese use a primary food source.

Management Techniques:

- Hazing
  - Propane cannons are utilized to assist in hazing geese from the airport. The cannons are placed on the airfield and golf course and are moved as conditions warrant. The cannons are numbered and activated by Operations personnel through the Airport Control Center radio system.
  - 12-gauge shotguns are utilized to launch pyrotechnic cracker shells to haze birds from the area, and live ammunition is used if lethal control is necessary.
  - A paint ball gun is used as a non-lethal deterrent.

- Population Control
  - Nest oiling and addling is utilized under the terms and conditions listed in the US Fish and Wildlife depredation permit to control future generations of geese being imprinted to the area.

- Lethal Control
  - Lethal control is utilized under the terms and conditions listed in the US Fish and Wildlife depredation permit as a last resort after non lethal means have proven ineffective to haze geese from the area.

4.2) **Ducks.** Ducks are a species of concern that pose a threat to aircraft damage due to their size and tendency to flock. Small numbers of ducks are present at the airport throughout most of the year; however, very large numbers are present in surrounding wetlands during spring and fall migration periods.

Attractants:

- The Great Salt Lake, private waterfowl hunting clubs, and several wildlife refuges north of the airport contribute to very large waterfowl numbers near the airport. Ducks are attracted to areas of the airport that contain standing water, the golf course ponds, and the surplus canal. These areas are used for feeding, loafing, nesting, and roosting.

Management Techniques:

- Hazing
  - Propane cannons are utilized to assist in hazing birds from the airport. The cannons are placed on the airfield and golf course and are moved as conditions warrant. The cannons are numbered and activated by Operations personnel through the Airport Control Center radio system.
  - 12-gauge shotguns are utilized to launch pyrotechnic cracker shells to haze birds from the area, and live ammunition is used if lethal control is necessary.
  - A paint ball gun is used as a non-lethal deterrent.

- Lethal Control
  - Lethal control is utilized under the terms and conditions listed in the US Fish and Wildlife depredation permit as a last resort after non lethal means have proven ineffective to haze birds from the area.

4.3) **Gulls.** Gulls have been one of the most common species of birds involved in strikes with aircraft at the airport. Gulls are a serious threat and are likely to cause aircraft damage due to their size, low flight patterns, and the tendency to flock. The surrounding Great Salt Lake marshes are home to one of the largest breeding populations of California gulls in the world. Gulls are a seasonal problem in the spring, summer, and fall.

Attractants:

- Gulls are attracted to the airport by open water and to feed on grasshoppers and earthworms. The summer of 2002 was a period of numerous strikes with gulls due to larger than normal infestation of grasshoppers that gulls were feeding on daily.

Management Techniques:

- Hazing
  - Propane cannons are utilized to assist in hazing birds from the airport. The cannons are placed on the airfield and golf course and are moved as conditions warrant. The cannons are numbered and activated by Operations personnel through the Airport Control Center radio system.
  - 12-gauge shotguns are utilized to launch pyrotechnic cracker shells to haze birds from the area, and live ammunition is used if lethal control is necessary.
  - A pesticide spray application is utilized for insect control if conditions warrant by licensed Airport Maintenance personnel or by personnel referred by USDA Wildlife Services.

- Colony Removal
  - USDA Wildlife Services and a local hunting club removed a large colony of approximately 10,000 gulls north of the airport that were established on the hunting club in 1999. The gull colony was a serious threat as their daily flight pattern was directly over the airport's center and east runways. The colony was removed by nest removal, egg oiling, and finally by pigs being put on the nesting colony island to consume eggs and destroy newly laid nests.

- Lethal Control
  - Lethal control is utilized under the terms and conditions listed in the US Fish and Wildlife depredation permit as a last resort after non lethal means have proven ineffective to haze birds from the area.

4.4) White Faced Ibis. White faced ibis are a species of concern mostly during spring and fall migration periods. The nearby Great Salt Lake marshes are home to one of the largest breeding populations in the world.

Attractants:

- This species is mostly an off airport concern, but will occasionally congregate on the airport in shallow areas of standing water in the spring and early summer.

Management Techniques:

- Hazing
  - Propane cannons are utilized to assist in hazing birds from the airport. The cannons are placed on the airfield and golf course and are moved as conditions warrant. The cannons are numbered and activated by Operations personnel through the Airport Control Center radio system.
  - 12-gauge shotguns are utilized to launch pyrotechnic cracker shells to haze birds from the area, and live ammunition is used if lethal control is necessary.

- Lethal Control
  - Lethal control is utilized under the terms and conditions listed in the US Fish and Wildlife depredation permit as a last resort after non lethal means have proven ineffective to haze birds from the area.

4.5) **Swallows.** Barn and cliff swallows are a species of concern that are a seasonal problem in the spring and summer months. Swallows are small birds that congregate in nesting colonies. They tend to fly in loose flocks that generally do not cause serious damage when struck by aircraft, but aircraft strikes with swallows sometimes result in flight delays and downtime for inspection; and, as with any bird strike, the potential for serious consequences is always a concern to minimizing strikes with any species. Swallows do not respond well to hazing and unless an immediate threat, no action may be the best option.

Attractants:

- Swallows are attracted to bridges and buildings for nesting sites. The surplus canal is a water source that supports a large insect population and nearby buildings and bridges are a strong attractant. Open fields are also an attractant the swallows use for hunting insects.

Management Techniques:

- Colony Removal
  - When swallows are attempting to establish a nesting colony in an area that may impact aircraft operations and it is not practical to construct a

permanent barrier, nests are destroyed prior to birds laying eggs. Nests are removed by knocking them down with a pole or high-pressure water hose. Airport ARFF units have been utilized in nest removal.

- Habitat Modification
  - Netting is installed on bridges to provide a permanent barrier in areas where swallow colonies may affect aircraft operations.

4.6) **Starlings**. Starlings are a species that inhabit the airport year round and are a concern due to the large migratory flocks that may include over 1000 birds and the tendency to fly in tightly dense flocks. Flocks of starlings often feed on the ground in open grass fields and move as a cohesive unit to other feeding areas a short distance away. Damage caused is generally related to flock size. Several birds seldom cause damage, but a large flock often causes damage.

Attractants:

- Open grassy fields, insects, above ground electrical wires, and trees attract starlings. Most trees have been removed.

Management Techniques:

- Habitat Modification
  - Large groups of Russian Olive trees have been removed by Airport Maintenance from areas on the airport and adjacent properties. These trees were a strong attractant as nighttime thermal roosting sites.

- Lethal Control
  - Lethal control is utilized when starlings present an immediate threat to aircraft operations. Starlings are not protected by state or federal policy.

4.7) **Horned Lark**. Horned larks inhabit the airport year round and generally are a concern during the winter months. They are small birds that congregate in flocks of approximately 100. Serious bird strike damage to aircraft is seldom caused, but strikes sometimes result in flight delays and down time for inspection. Horned larks do not respond well to hazing and unless an immediate threat to aircraft, no action may be the best option.
Attractants:

- Horned larks are attracted to paved surfaces after measurable snowfall as a resting place and to gather grit placed as part of the airport snow removal operations.

Management Techniques:

- Hazing
  - Because horned larks are generally an immediate threat to aircraft operations while on a runway or taxiway, hazing with vehicle and sirens has proven to be most effective.

- Lethal Control
  - Lethal control is utilized under the terms and conditions listed in the US Fish and Wildlife depredation permit as a last resort after non lethal means have proven ineffective to haze birds from the area.

4.8) **Raptors.** Raptors are present at the airport throughout the year, but are most prevalent during spring and fall migration. The most common species are the American kestrel, red-tailed hawk, northern harrier, Swainsons hawk, rough legged hawk, barn owl, and turkey vulture, with bald eagles occasionally observed. Raptors are mostly observed alone or in pairs and are an occasional threat to aircraft. Raptors often cause aircraft damage due to their size.

Attractants:

- Raptors are attracted to open fields to hunt for small rodents and are often observed perched on fences, utility poles, airfield buildings and equipment. They also soar above the open field searching for prey.

Management Techniques:

- Hazing
  - Propane cannons are utilized to assist in hazing birds from the airport. The cannons are placed on the airfield and golf course and are moved as conditions warrant. The cannons are numbered and activated by Operations personnel through the Airport Control Center radio system.
  - Electronic distress cry generators are also placed on the airfield to deter birds.
  - 12-gauge shotguns are utilized to launch pyrotechnic cracker shells to haze birds from the area.
  - A paint ball gun is utilized as a non-lethal deterrent.

4.9) **American White Pelican.** American White Pelicans are a species of serious concern and are migratory birds that are present during spring, summer, and fall. Pelicans are very large birds that are likely to cause damage due to their size.

Attractants:

- These birds migrate in large flocks to and from a nesting colony on Gunnison Island in the Great Salt Lake. They travel to and from the island to feed on fish in fresh water marshes near the airport. They have been observed on the golf course pond feeding on fish and are often seen soaring at high altitudes flying in a circular pattern.

Management Techniques:

- Hazing
  - Propane cannons are utilized to assist in hazing birds from the airport. The cannons are placed on the airfield and golf course and are moved as conditions warrant. The cannons are numbered and activated by Operations personnel through the Airport Control Center radio system.
  - 12-gauge shotguns are utilized to launch pyrotechnic cracker shells to haze birds from the area.
  - A paint ball gun will be utilized as a non-lethal deterrent.

- Habitat Modification
  - Keeping the west golf course pond pumped dry during spring, summer and fall periods has reduced the attraction to pelicans at the airport.
  - Area duck clubs near the airport have joined together and plan to poison areas of standing water to remove fish that destroy habitat for aquatic vegetation utilized by waterfowl. This would reduce the attraction to pelicans that feed on the fish and have been a problem during late summer and early fall.

4.10) **Red Fox.** Red fox inhabit the airport throughout the year and have been prevalent for many years. Although the potential for being struck by aircraft exists, strikes have been seldom and the Airport and USDA Wildlife Services generally do not consider the species a serious concern. The presence of the red fox has shown to be a benefit by controlling small rodents and deterring waterfowl use of the area.

5) Permits

The Airport Operations Division maintains all state and federal wildlife depredation and salvage permits. All applications and renewals will be completed as stated in permits. Wildlife control will be conducted under the terms and conditions in the following permits:

- U.S. Fish and Wildlife Service Migratory Depredation Permit #MB708334-0
- U.S. Fish and Wildlife Service Migratory Salvage Permit #MB063204
- Utah Division of Wildlife Resources Depredation Permit #PRT-708334

All species of birds in the state of Utah are protected except starlings, sparrows and feral pigeons. Any other species must be listed in the depredation permits before lethal control may be used by Airport personnel. All wildlife mammals in the state of Utah are protected except red fox, coyotes, raccoons and skunks. All others must be listed in the depredation permits before Airport personnel may use lethal control.

6) Resources Assigned

The Airport Operations Division is responsible for implementing the Airport's WHMP in conjunction with USDA Wildlife Services, who is under contract with the Airport. The following is an inventory of equipment used for implementing the Airport's WHMP.

- 12-gauge shotguns used to launch cracker shells and live ammunition
- Pistol launcher used to launch "banger and screamer" cartridges
- Pellet gun used for lethal control
- Paint ball gun used as non-lethal control and to mark problem birds
- Gun safe used as a secure storage area for firearms when not being used for wildlife control
- Propane cannons
- Vehicles, spotlights and sirens
- Snare poles and nets used to catch wildlife and domestic pets
- Binoculars, flashlights, cameras, waders, and bird field guides
- Wildlife freezer used to store wildlife carcasses and remains until species can be positively identified
- Polaris six-wheeled ATV

7) Assigned Personnel and Procedures

Airfield & Terminal Operations

An Airport Operations Officer is assigned to conduct wildlife control daily from dawn to dusk. The remaining Airport Operations Officers are also responsible for wildlife control as a part of their regular airfield patrol duties. Efforts to remedy any observed wildlife hazard will be taken as soon as it is safely possible. Personnel will advise FAA Air Traffic Control (ATC) of wildlife that may affect aircraft operations. Additional inspections and control measures may be required and will be conducted as conditions warrant. Personnel are available 24 hours a day to respond to wildlife issues.

The Airport Operations Officer (AOO) assigned to wildlife each shift also conducts daily bird counts at thirteen (13) designated sites on the airport. The survey provides important data on actual bird numbers on the airport throughout the year, ensures the entire airport is being monitored for wildlife, assists in meeting environmental requirements for depredation and wetland mitigation permits, and requires Airport Operations personnel to identify birds on the airport. Occasionally, bird surveys are cancelled due to weather or unforeseen priority or emergency situations.

Airport Maintenance

Airport Maintenance is responsible for dragging airfield areas to reduce gopher mounds, operating the “gophernator”, small scale pesticide and herbicide application, installation of bird nets, maintenance of propane bird cannons and assist with habitat management in the form of effective mowing practices and removal or management of wildlife friendly landscaping.

Airport Police

Airport Police will be dispatched for emergency lethal removal of large mammals if State or Federal wildlife personnel are not available.

Habitat Modification

- The Airport attempts to manage wildlife to the extent practical with land use and planning to reduce the risk of wildlife hazards.

Hazing

- The Airport uses scare tactics as the primary means of controlling wildlife. This is done using a combination of pyrotechnics, propane cannons, and vehicle sirens.
- When an area is identified as a continual problem area for wildlife, a work order will be placed to have bird cannons moved to that location and additional inspections will be conducted.
- All Airport Operations vehicles used for wildlife control are equipped with two-way ATC radios. Contact will be made with ATC whenever conducting wildlife control that may affect aircraft operations.
- Species of birds respond differently to hazing tactics. Personnel should identify the species and be aware of its habits before hazing. Most waterfowl respond well to hazing and will find another area if hazing is aggressive and consistent. Horned larks and swallows do not respond well and generally fly only a short distance and will not leave the area. Often no action is the best option with some species if not an immediate threat to aircraft operations.
- Large flocks of birds may be difficult to move by just one person and a joint effort may be necessary to move birds from the area.
- The Airport Control Center and Airport Police will be notified of wildlife control that may elicit public or tenant response from the noise of firearms and pyrotechnics used.

Lethal Control

- Lethal control will be used primarily as a last resort after other methods have proven to be ineffective, in emergency situations, or if necessary to destroy an injured animal.
- As a general rule, for lethal control to be effective in hazing birds, it should be used on a sizeable flock to have an impact on other birds and deter them from coming back to the area. Certain problem birds that refuse to haze and can be identified may be taken as an exception to having a large flock present. In certain areas and circumstances, it may be beneficial to leave carcasses of birds taken by lethal means as a deterrent. If carcasses are left as a deterrent, the area should be monitored closely as other hazardous species, such as turkey vultures, may be attracted to the area.
- Lethal control will be conducted under the terms listed in the US Fish and Wildlife and Utah State depredation permits. If species of wildlife causing a threat are protected and not listed in the permit, USDA Wildlife Services will be contacted.

- If large mammals, such as deer, are a threat to aircraft operations, an officer with the USDA Wildlife Services or the Utah Division of Wildlife Resources should be contacted through the Airport's Control Center. If personnel from either of these agencies are unavailable or the animal presents an immediate threat to aviation safety or aircraft operations, an Airport Police Officer will be dispatched.

Documentation

- Wildlife inspections and control management measures will be called in by Operations and Maintenance personnel and logged by the Airport Control Center. Inspection reports should note all hazardous species hazed and should be called in even if no wildlife is observed during the inspection. Wildlife inspections should be conducted in sections as follows:
  - West Airfield
  - East Airfield
  - Midfield
  - East Golf Course
  - West Golf Course
  - South Canal
  - West Canal

- When a migratory bird or bird carcass is removed from the airfield or airport property as a result of lethal control, a bird strike, or other means, it will be documented in the Airport Wildlife Depredation/Salvage Log (Attachment 1).
- All wildlife strikes and carcasses or wounded wildlife found within 200' of a runway centerline will be considered a wildlife strike and documented on FAA Form 5200-7 and sent to the FAA. If possible, the aircraft crew or mechanics should be contacted to obtain as much information as possible to complete a report. If a bird strike is reported to be a possible bird strike (i.e. pilot reported he/she thought they hit a bird and no evidence can be found on the aircraft or runway), do not do a report. If the pilot is confident they hit a bird, do a report.
- If species involved is unidentifiable, remains should be obtained by gathering carcass, remaining pieces or a blood sample and placing it in the wildlife freezer located in the shuttle bay for further identification. If necessary, remains will be sent to the Smithsonian for positive identification. Recovered carcasses that have been identified will be buried or incinerated.
- Completed bird surveys will be kept on the designated board in the Airport Operations Office and given to the USDA Wildlife Service quarterly.

Training

- All Operations personnel receive regular wildlife control and identification, firearms, and air traffic ground control training to effectively implement the WHMP.

8) Review and Evaluation

The Executive Director, Director of Operations, Operations Superintendent, Airport Duty Manager in charge of wildlife, and a biologist with the USDA Wildlife Services will review the Airport WHMP annually. Operations personnel meet regularly with USDA Wildlife Services personnel to discuss current wildlife problems and procedures.

ATTACHMENT 1

Salt Lake City Department of Airports

WILDLIFE DEPREDATION / SALVAGE LOG

Date		
Time		
Species		
Approximate Number Observed		
Location		
Activity		
Number Taken by Lethal Control		
Number Relocated		
Final Disposition (Incinerated/Buried)		
Area Relocated To		
Logged By		
Comments		

ATTACHMENT 2

U.S.D.A.'S

WILDLIFE HAZARD ASSESSMENT

For

Salt Lake City International Airport

(Consists of the Following 14 Pages)

JSDA United States Department of Agriculture
Animal and Plant Health Inspection Service
Wildlife Services
1860 West Alexander St.
P.O. Box 26976
Salt Lake City, UT 84126

Wildlife Hazard Assessment

for

Salt Lake City International Airport

This report is the wildlife hazard assessment conducted by USDA-APHIS-Wildlife Services (WS) for the Salt Lake City International Airport (SLCIA). The assessment is divided into four sections based on FAR Part 139.337 paragraph (b).

Section 1: WS History at SLCIA

There is no single event which prompted this wildlife hazard assessment. WS involvement at SLCIA began in August 1991, when Salt Lake City Airport Authority (SLCAA) requested WS input in the development of a Wildlife Hazard Management Plan (WHMP) for SLCIA. Roy McDonald, a WS Biologist, toured the airport and reviewed the proposed WHMP. Roy reported that considerable thought and action had been taken at the airport to minimize problems between wildlife and aircraft. Because most of the conditions contained in FAR Part 139.337 paragraph (a) had occurred at SLCIA, Roy did suggest that a wildlife hazard assessment, in accordance with FAR Part 1 paragraph (b), should be done.

During 1992, SLCAA continued to consult with WS about wildlife hazards at the airport. On August 26, 1992, SLCAA and WS met with the Federal Aviation Administration (FAA) to discuss the bird strike situation. The month following that meeting, Roy and Norm Thompson did a wildlife survey at the airport and Roy made numerous recommendations for reducing wildlife use at SLCIA and the associated risks to aviation safety.

In November 1992, WS submitted a formal proposal to SLCIA to conduct a long-term ecological study at the airport. This long-term study began in June 1993 and continued

APHIS - Protecting American Agriculture

DEC 2 0 2004

through July 1997. When WS' contract with SLCIA airport was renewed in August 1997, the initial long-term study was deemed complete. Because the interim WHMP adopted by SLCIA is a dynamic plan, weekly site visits by WS personnel have continued to supplement the original study. These weekly visits also allow WS to remain alert to any habitat alterations or variations in wildlife use at the airport that may require habitat alteration or additional studies.

Section 2: Wildlife Species and Activities

During the long-term ecological study at SLCIA, various species were observed and patterns in wildlife use were discovered. SLCAA made many habitat alterations during the initial long-term study, and the numbers and locations of wildlife species have reflected those changes. Therefore, this section contains general information on wildlife numbers and locations. Specific information regarding the numbers of each species and their specific locations at the airport are recorded on the original survey data sheets and in past quarterly and year-end reports to SLCIA. These data sheets and reports are on file at the WS State office in Salt Lake City, and the reports are also included in this report in Appendix A.

Following is a list of species observed at SLCIA. Species are grouped by family and/or habit. The time of year when they occur at the airport, their flocking behavior, the habitats where they have been observed at the airport, and their activities are described.

Shorebirds

Cattle Egret	Snowy Egret	Great Blue Heron
White-faced Ibis	American Avocet	Black-necked Stilt
Killdeer	Marbled Godwit	Semi-Palmated Plover
Long-billed Curlew	Willet	Greater Yellowlegs
Wilson's Phalarope	Red-necked Phalarope	Double-crested Cormorant

The greatest occurrence of shorebirds coincides with the annual spring migration, primarily in March, April, and May. Killdeer are usually seen singly or in pairs and will remain throughout the summer. American avocets are often present in flocks of around 20 individuals and may remain for a month or more in the spring. Other shorebird species are usually only seen in small flocks of less than 10 birds and are present for only a few days to a few weeks in the spring. The majority of shorebirds are found at the golf course, along drainage canals, and in areas with standing water. The birds use these areas for feeding and loafing.

Waterfowl

Canada Goose	Mallard	Gadwall
Green-winged Teal	Northern Pintail	Northern Shoveler
Blue-winged Teal	Cinnamon Teal	Ruddy Duck
Redhead	Lesser Scaup	American Coot
Feral Domestic Duck	Western Grebe	Eared Grebe

Various species of waterfowl can be found at the airport year-round. The majority of species are present during the spring migration in March, April, and May. Some species are again seen in the fall migration, although fewer species and lesser numbers occur. Canada geese have been observed at the airport year-round and are usually seen in pairs or small to medium flocks of up to 30 birds. Canada geese often congregate at the airport in late fall through early winter, when the birds use the airport and adjacent areas as refuges from hunting. Mallard ducks are also observed year-round in pairs or small flocks. Other duck species, such as northern shovelers, cinnamon teal, and lesser scaups, are usually only present for about a month during the spring migration. These duck species are usually seen in small to medium flocks of up to 50 birds. Waterfowl use is concentrated in and along the drainage canals, at the golf course, and in the larger bodies of standing water. Some species, such as Canada geese, use areas with short grass for feeding and nesting. Most species use the area only temporarily for feeding and loafing during migration. Canada geese and a few pairs of various duck species that remain throughout the summer will breed and raise their broods at the airport.

Gulls and Terns

Franklin's Gull	California Gull	Common Tern

Terns are usually only seen in the vicinity of the airport during the spring migration and their numbers are normally low. Gulls migrate through the Salt Lake area in the spring, with some remaining throughout the summer, and again migrate through in the fall. Flock size of gulls varies, but numbers can exceed 200 birds. During spring and summer months, gulls can often be seen flying over the airport singly, in small groups of 2-10 birds, and in larger flocks of over 50 individuals. Gulls and terns congregate at the golf course, in areas with standing water, and in the open short grass areas of the airfields. These birds feed and loaf both in areas with short grass and those with open water.

APHIS - Protecting American Agriculture

DEC 2 0 2004

Raptors

Bald Eagle	Northern Harrier	Turkey Vulture
Swainson's Hawk	Red-tailed Hawk	Rough-legged Hawk
American Kestrel		

Raptors are seen most often at the airport during the winter months although red-tailed nawks, northern harriers, and the American kestrels are present year-round. The rough-legged hawk is primarily a winter visitor. Raptors normally occur alone or in pairs, and densities are normally very low. The raptors present at the airport are birds of open spaces, and are usually seen perched on fences and airfield structures while loafing or attempting to locate prey. They also hover and soar in the airspace above the open grass infields while they search for prey.

Passerines and other Small Birds

Mourning Dove	Western Kingbird	Horned Lark
American Robin	House Sparrow	House Finch

Most species of passerines are migratory and are normally only present at the airport during the warmer months of the year. Horned larks, although present year-round, are more likely to be hit by airplanes in the winter months when they gather in flocks of over 100 birds and congregate along the runways where the snow has melted off or been removed by machinery, and sand is available for grit. Most other passerine species are observed in pairs or small flocks, and their densities are normally low. Passerines are found near areas with trees, brush, or other vegetative cover, such as along drainage canals. Although cover needs to be nearby, these birds may forage in areas with short grass. Depending on the species, these birds will feed, loaf, and nest on and near the airport.

Kingfishers

Belted Kingfisher

Belted kingfishers may be present year-round. They normally occur alone or in pairs. Kingfishers are found along drainage canals where they hunt for fish.

APHIS - Protecting American Agriculture

DEC 2 0 2004

Swallows

Cliff Swallow Barn Swallow

Swallows are migratory and are normally only present at the airport during the warmer months of the year. Swallows nest in large colonies and over 100 birds may be seen flying around these nesting sites. Nesting sites are usually located under bridges or building eaves. Swallows are often seen hunting insects over water sources and open fields.

Pigeons

Rock Dove

Rock doves, also known as common pigeons, are present year-round. They normally occur in small to medium flocks of up to 50 birds. Pigeons can be found nearly anywhere at the airport, but are usually located near buildings where they like to roost. Pigeons feed, loaf, and nest at the airport.

Starlings

European Starling

Starlings are present at the airport year-round. They may occur in extremely large groups with over 1000 individuals, although flocks of 50-100 birds are more typical. Starlings have been seen feeding in areas with short grass and in the brush along drainage canals.

Blackbirds

Brewer's Blackbird Western Meadowlark Yellow-headed Blackbird
Red-winged Blackbird Brown-headed Cowbird

Blackbirds are migratory and usually begin arriving at the airport in early spring. Red-winged blackbirds and western meadowlarks are the blackbird species most often observed at the airport. Red-winged blackbirds are numerous in the brush along the drainage canals where they feed and nest. Western meadowlarks are usually seen alone on fences, signs, or other structures in the airfields, and they feed and nest in areas with short grass.

APHIS - Protecting American Agriculture

DEC 2 0 2004

Crows, Ravens, and Magpies

Black-billed Magpie American Crow Common Raven

Magpies, crows, and ravens are found at the airport year-round. These species occur in low densities and are usually seen alone or in pairs, although they will sometimes form small flocks. These birds have been seen throughout the airport, and no areas of consistent use have been observed. Magpies, crows, and ravens are usually seen flying locally or loafing on fences, signs, or the concrete slabs in the east airfield.

Upland Game Birds

Ring-necked Pheasant

Ring-necked pheasants are present year-round. They are usually seen singularly or in small flocks. Pheasants tend to remain near areas with tall grass or other vegetative cover.

Mammals

Skunk	Pocket Gopher	Voles
Red Fox	Domestic Cat	Muskrat
Raccoon (tracks)	Mink (tracks)	

All mammals present at the airport occur year-round. Although many are common at the airport, most are nocturnal and are rarely observed during surveys conducted during the day. Red fox are abundant at and surrounding the airport. Although it is possible that a fox could get struck by an airplane during take-off or landing, they are generally not considered a species of concern. The presence of red fox at the airport may actually be a benefit, rather than a threat, to air carrier operations. Fox feed on small mammals and may aid in keeping the populations of mice and other rodents at acceptable levels, perhaps decreasing raptor use of the infield area. Because fox will also feed on waterfowl and their eggs, their presence may discourage waterfowl use at the airport.

APHIS - Protecting American Agriculture

DEC 2 0 2004

Section 3: Features that Attract Wildlife

The Salt Lake Valley is an area with a history of wildlife use, including resident and migratory bird populations. Every spring numerous bird species migrate along the Wasatch Mountain Range which borders the valley on the east. Migrating birds use the numerous wildlife refuges and waterfowl management areas located throughout the valley as stopovers during the migration. The Great Salt Lake and its associated wetlands are also attractive summer range for a wide array of bird species. Because SLCIA is located close to the wetlands surrounding the lake, it is a likely area for wildlife use. In addition to the wetlands and the lake itself, the airport is located near agricultural fields and drainage canals. To the south and east of the airport is Salt Lake City and its surrounding suburbs where numerous ponds, small lakes, rivers, drainage canals, and park areas intermingle with the urban environment. Many wildlife species have learned to co-exist with humans and their activities, even the operation of loud aircraft. The historical wildlife use of the area, the diverse landscape surrounding the airport, and wildlife's ability to habituate to human activities combine to make SLCIA very attractive to wildlife.

Although there is little SLCIA can do to reduce the attractiveness of the entire Salt Lake Valley, there are numerous things that can be done at the airport itself. When WS personnel first toured the airport in 1992, potential wildlife attractants were identified and many initial recommendations were made. Following are the various attractants, how they are used by wildlife, WS' recommendations regarding each attractant, and what SLCAA has done in response to these recommendations.

Standing Water

Standing water attracts birds and other wildlife which use these water sources for drinking, bathing, and feeding on the plants and insects produced there. WS recommends that whenever possible, standing water should be eliminated. Paved areas must have enough camber to promote quick and complete runoff of water. Small depressions and damaged areas in paved or graveled areas should be repaved or repaired as soon as possible. Low lying areas in and surrounding the airfields should be managed to reduce standing water. SLCAA continuously monitors the airfields for standing water, assigns a priority level to each problem area, and eliminate standing water by draining, filling, and levelling, or repaving. SLCAA, in conjunction with the Wingpointe Golf Course, placed spraying fountains in one of the large ponds at the golf course to discourage waterfowl use.

Vegetation Along Canals

Vegetation along drainage canals provides cover, nesting and perching sites, and food for wildlife. WS recommends that this vegetation is removed with herbicides, mowing, or burning. These areas need to be monitored for regrowth and periodic vegetation removal may be necessary. SLCAA burns the canal banks in the spring.

APHIS - Protecting American Agriculture

DEC 2 0 2004

Water In Canals

Water in the drainage canals is used by waterfowl and some shorebirds for drinking, bathing, and feeding on the plants and insects produced there. WS recommends that the drainage canals be evaluated to see if they can be dredged for better water removal or if they can be filled with drainage tile and then covered over. If the canals must remain open, 10-gauge wire or 100-pound test nylon monofilament line should be stretched 2-6 feet above the canals in a zig-zag pattern. SLCAA has placed monofilament lines over several canals. The canal system at the airport is currently being rerouted, and several canals in the airfields have been drained and filled.

Short Grass Areas

Short grass provides feeding and loafing habitat for many bird species including gulls, geese, horned larks, and starlings. WS recommends that airfield grass be maintained at a height of 6-10 inches tall. Grasses should not exceed 4 inches near runways, taxiways, and safety areas where visual aids might be obscured. Mowing may stir up insects and small mammals, attracting insectivorous and predatory birds. If this occurs, WS recommends mowing at night or during low traffic periods during the day. SLCAA attempts to maintain grass at a height of 6-10 inches tall. However, during the relatively dry summer months, the grass may become shorter than 6 inches as it drys and withers.

Livestock

The presence of livestock can compact the soil, leading to reduced drainage and uneven vegetation growth. Droppings encourage weeds and attract insects, which in turn attract birds. Livestock feed also attracts birds. WS recommends that grazing and feeding of livestock should not be allowed at the airport. SLCAA banned livestock grazing in east airfield pastures in 1994.

Agricultural Practices

Agricultural practices such as plowing, irrigation, and harvesting of crops attract large flocks of birds and other wildlife. WS recommends that farming should not be allowed at the airport. SLCAA banned farming practices at the airport in 1994.

Trees and Brush

Trees and brush provide food, cover, perching sites, and nesting sites for wildlife. WS recommends that trees and brush should be removed from the airport whenever possible. SLCAA removed a large stand of trees that was located in the northeastern corner of the east airfield and also several individual trees located near an old homesite located in the east airfield.

APHIS - Protecting American Agriculture

DEC 2 0 2004

Construction Debris

The piles of concrete slabs and other construction debris provides cover for small mammals that may attract raptors. They also provide perching sites for birds. WS recommends that these piles be removed if possible. SLCAA has removed several piles of construction debris and has plans for removing others.

Insect Populations

Abundant insects such as grasshoppers or mosquitoes and attract large flocks of insectivorous birds. WS recommends that insect populations be monitored and that insecticides be applied if necessary. SLCAA monitors insect populations. To date, no control has been necessary.

Small Mammal Populations

Abundant small mammals such as mice and voles attract raptors and mammalian predators. WS recommends that small mammal populations be monitored and direct control methods be initiated if required. SLCAA monitors small mammal populations. To date, no control has been necessary.

Public Observation Area

Visitors to a public observation area along the southwest corner of the east airfield were attracting birds, most notably large flocks of gulls, to the area. WS recommends that feeding be discouraged and "no feeding" signs be posted. SLCAA has posted signs that explain the threat that feeding birds pose to aircraft. Airport personnel also routinely patrol the area and advise anyone feeding birds to stop.

Section 4: Wildlife Hazards to Air Carrier Operations

The presence of wildlife at SLCIA does pose a hazard to air carrier operations. As detailed in Section 3, SLCAA has made many habitat changes to reduce this hazard. However, wildlife strikes with aircraft, primarily involving birds, do occur at SLCIA.

The trend in the number of bird strikes at SLCIA was compiled from 2 sources of bird strike information. One source was a list of bird strikes at SLCIA from 1989 through 1997. It is the understanding of WS that this list is a complete FAA record of bird strikes at SLCIA. The second source was yearly summaries, from 1991 to 1997, of bird strikes at the airport. Both sources of bird strike information show similar trends (Appendix A).

For the years provided, there is no significant upward or downward trend in the number of bird strikes at SLCIA. Considering the FAA numbers, bird strikes reached a high of 43 (FAA) in 1992, dropped to 22 in 1993, and continued decreasing until 1996 when bird strikes

APHIS - Protecting American Agriculture

DEC 2 0 2004

began to increase. SLCIA bird strike information shows fluctuating numbers of strikes, with the most continual increase occurring from 1995 to 1997.

The trend in the amount of aircraft activity at SLCIA from was also compiled. Aircraft movements were defined as either one take-off or landing. Appendix B shows a graph of aircraft movements at SLCIA. The number of aircraft movements at SLCIA has been slowly increasing, with a slight drop in activity in 1997.

The trend in the number of bird strikes per 10,000 aircraft movements (Appendix C) shows a similar trend to the number of strikes reported by the FAA (Appendix A).

An attempt was made to analyze the trend in waterfowl and shorebird numbers over the same time period as the bird strike information. Although national bird censuses show an upward trend in waterfowl and shorebird populations, we were unable to locate reliable data for the Salt Lake Valley.

SUMMARY

The number of bird strikes at SLCIA does not show a definite downward trend. While this could indicate that more needs to be done to reduce the attractiveness of the airport to wildlife, WS believes that SLCAA has done a credible job of implementing WS' recommendations in the past. Several other factors exist that could affect the number of strikes reported at SLCIA.

First, as awareness about wildlife strikes increases, so does the reporting of strikes. Therefore, it is possible that the number of strikes may be more a reflection on the reporting process rather than on the actual number of strikes that occur. Second, in recent years at SLCIA, an increasing number of reported strikes have taken place several miles away from the airport at high elevation. These strikes often occur at night and involve migrating waterfowl. The presence of birds where these strikes have occurred is not affected by conditions at SLCIA, and SLCAA cannot do anything to prevent this type of bird strike.

A credible effort has been conducted by SLCAA to reduce wildlife hazards associated with the airport. Short of relocation out of the Salt Lake Valley (an unrealistic option), there will always be risks associated with aviation near the Great Salt Lake. Nonetheless, these risks can be managed.

The interim WHMP implemented by SLCAA has done a wonderful job of reducing the risks of wildlife strikes at the airport. If off-field strikes were discounted, the trend data would reflect this reduction. However, like all plans, the dynamic nature of wildlife populations and off-field development requires a dynamic plan which can accommodate changes in wildlife abundance, airport uses or both. The WHMP adopted by SLCAA and the current contract between SLCAA and APHIS-WS reflects this. Certainly the on-going relationship provides opportunities to identify and remedy any wildlife hazards at the SLCIA.

APHIS - Protecting American Agriculture

DEC 2 0 2004

Should the administrator deem it appropriate to require a WHMP, WS believes the interim plan developed by SLCAA contains all the necessary provisions for addressing known, existing wildlife hazards and recommends that plan be adopted for SLCIA.

Laurie Meadows

Laurie Meadows
Wildlife Specialist

Michael J. Bodenchuk
Supervisory Wildlife Biologist
State Director

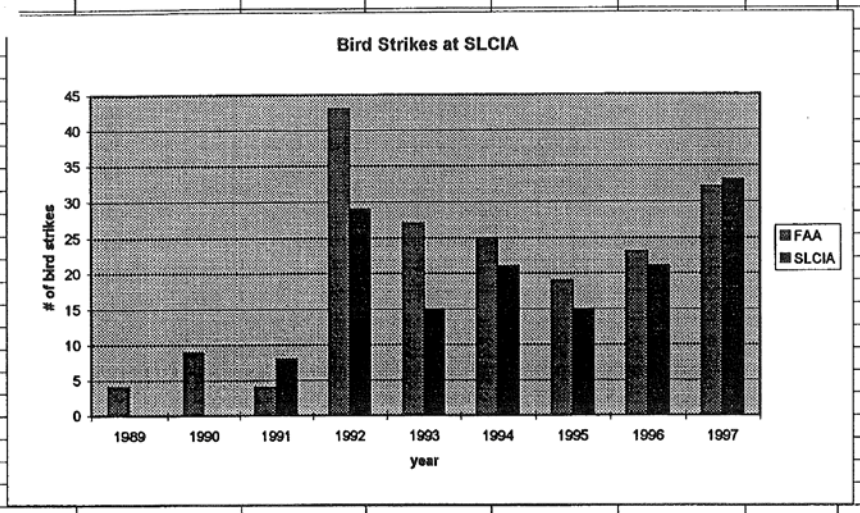
Enclosures

Appendix A-Bird Strike Data
Appendix B-Aircraft Movement Data
Appendix C-Bird strikes per 10,000 movements
Appendix D-Annual reports-FY 94, 95, 96, 97

APHIS - Protecting American Agriculture

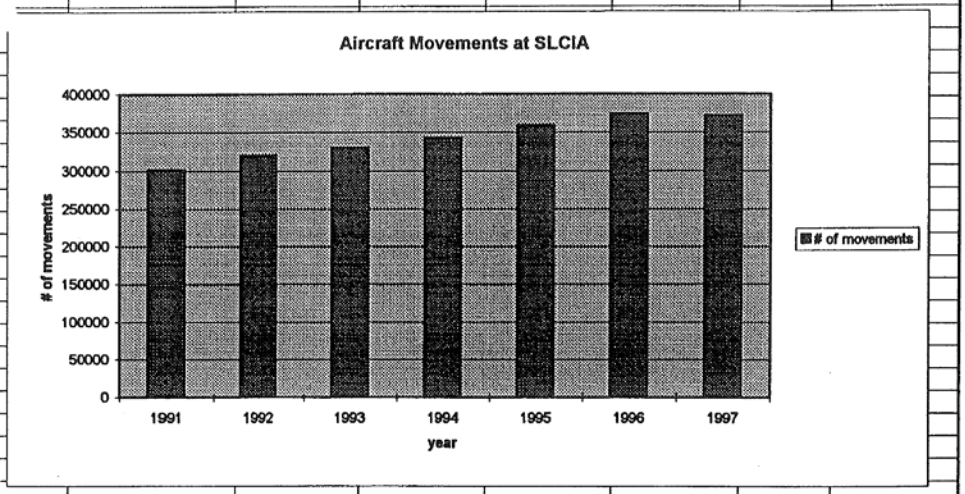
DEC 2 0 2004

Appendix A



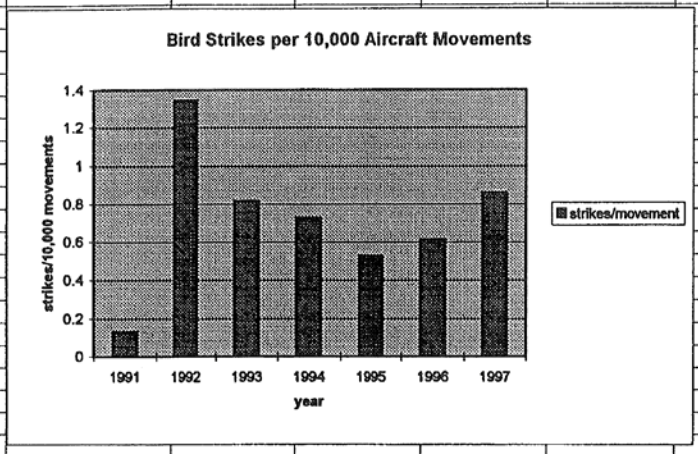
DEC 2 0 2004

Appendix B



DEC 2 0 2004

Appendix C



DEC 2 0 2004

WILDLIFE PERMITS

State of Utah, Division of Wildlife Resources:

Certificate of Registration

Department of the Interior
Federal Fish and Wildlife Permits:

Special Purpose Salvage Permit
and
Depredation Permit

Current Permits are on File in the Operations Division

Salt Lake City International Airport

Salt Lake City, Utah

Integrated Pest Management Plan

3/15/18

TABLE OF CONTENTS

I. INTRODUCTION

Salt Lake City's Comprehensive Sustainability Policy requires an Integrated Pest Management (IPM) for each City Department. The Salt Lake City Department of Airports (SLCDA) IPM is a sustainable approach to manage pests using a combination of conservation practices including chemical application methods, biological controls, prevention practices, and habitat manipulation to minimize risks to human health and the environment.

The airport has implemented IPM practices with the Facilities Maintenance Division for interior pests and the Airfield Ground Maintenance Division for exterior pests and noxious weed management.

This document will serve as a framework for addressing IPM at the facility level by;

- Describing the common categories of pests and typical weeds found in the airport environment.
- Developing mitigation strategies to prevent pests from entering into the airport facility
- Developing mitigation strategies to prevent and/or manage weed growth.
- Identifying basic methods of monitoring
- Outlining effective means of treatment
- Educating and training staff to ensure proper implementation of the IPM plan.

II. FACILITIES MAINTENANCE – INTERIOR

Common pests found in the airport environment include insects, rodents and birds. SLCDA has procured a contract with a pest management company to provide pest control services. Requirements documented in the contract include the following:

All contract personnel must have a pest control license and experience in applying pesticides. The contractor must supply a list of chemicals to be used on site. The airport may require the contractor to use a specific brand or reduce the quantity of the product being used with an emphasis on protection of human health and the environment. The contractor is strongly encouraged to use sustainable control measures and minimize the use of chemical pesticides whenever/where ever possible. New application methods, and/or new products are researched by the contractor and their application is monitored by airport personnel. The contractor must submit monthly inspection report (Appendix A). The contractor must comply with federal, state and local laws. Other pest control activities are managed by airport personnel who have achieved certifications for pest management and/or pesticide application.

1. Sustainable Control Measures, Methods, and Equipment:

- Injectable gel is used in the place of sprays when possible.
- Glue traps and/or bait stations are used in areas that may be sensitive to sprays.

- Ant bait traps are used instead of sprays.
- Tenants and airport personnel are always encouraged to use good housekeeping, to keep food and beverages in sealed containers, to use enzymes in drains to avoid infestations and to seal any points of penetration through ceilings, walls or floors.
- All construction projects, new and remodels are inspected for tight seals around any type of penetrations.
- Vacuums are frequently used in the public areas for spiders and webs, ants, and flying insects.
- Hornet traps are used instead of sprays whenever possible.
- Glue boards and traps are monitored monthly to evaluate and quickly address increased signs of rodents or pests before they become problematic.

2. Non-Toxic Products Frequently Used:

- Insecticidal Soap – Potassium salts of fatty acid
- A variety of products with combinations of rosemary oil, cinnamon oil, peppermint oil, clove oil and sesame oil.
- Boric acid powder
- D-limonene (orange peel extract)
- Ant Granules
- Isopropyl alcohol (bed bugs and roaches)
- Diatomaceous earth (crushed sea shells) first line of defense for bed bugs, roaches and other pests.
- Injectable gel and bait stations (roaches and ants)

III. AIRFIELD MAINTENANCE- EXTERIOR

Common weeds found in the airport environment include Kochia, Russian Thistle, Hoary Cress, Russian Knapweed, Phragmites, Salt Cedar, Perennial Pepperweed, White Top, Squarrose Knapweed, Dandelion and Field Bindweed.

Airport personnel that spray and apply pesticides must have training and experience in applying pesticides. Supervisors attend off-site training and have received their Pesticide Applicator Certification. The list of chemicals to be used on site can be found in the Airport Landscape Maintenance Chemicals and Supplies contract. Some more potent, less desirable products are used in emergency situations to control insect infestations. For example, grasshoppers and/or crickets are a food source for wildlife and can cause a safety concern on the airfield. As a last resort, Malathion would likely be used to immediately eliminate the pests. The food source would be mechanically removed by Airport Grounds Maintenance staff. In addition, for safety of aircraft operations, the Federal Aviation Administration has specified no vegetation growth in specific locations such as airport right of way. Weeds in these areas could also constitute a situation where a fast acting chemical might be required. Airport pesticide applicators are encouraged to use sustainable control measures and minimize the use of chemical pesticides and herbicides whenever and where ever possible. New application methods, and/or new products are researched and monitored by airport personnel. The pesticide applicators may test alternative

chemicals or reduce the quantity of the product being used with an emphasis on protection of human health and the environment. Airport pesticide applicators must comply with federal, state and local laws.

Sustainable Control Measures and Best Management Practices

Sustainable control measures and best management practices include preventing weed and pest development by maintaining a healthy turf. Researching and documenting alternative less toxic products, reducing the amount of chemicals used and ensuring the safety of the pesticide or herbicide applicator. Performing weed and pest identification to determine the appropriate mitigation strategy. Effectively managing and potentially eradicating noxious, non-native weeds. Experimenting with biological controls to reduce chemical application. Training for appropriate chemical use, personal safety and awareness. Using mechanical removal techniques when possible. Protecting water quality when applying herbicides near open water and utilizing techniques to prevent soil erosion.

Weed Prevention

Prevention is primary to the success of an IPM program. Preventative measures include monitoring and maintaining a healthy turf to eliminate weeds and insects, and allowing the native landscape to grow where possible to reduce weed activity. Additionally, Airport Grounds Maintenance staff place rock and milled asphalt in right-of-way areas to reduce weed growth by creating a less desirable ground surface. Mulches and ground cover are used in the Airport landscapes to assist in preventing the spread of weeds and the need for herbicide application.

Chemical Reduction for Employee Safety and Protection of the Environment

In an effort to emphasize the impact to human health and the environment, the airport Airfield Ground Maintenance Division consistently evaluates alternatives to the chemicals that are used to manage weed growth on the airport campus. In addition to testing and monitoring safer chemical alternatives, the Airfield Grounds employees have been successful in some instances of reducing the amount of chemicals applied. For example, the Grounds Maintenance crews are currently using two chemicals that require a lower amount of active ingredient, 11 to 7 ounces/acre, compared to what they used in the past, 12 pounds/acre. And by using a combination of two products the opportunity for the weeds to develop resistance to the product is reduced. Smaller application rates for some of the newer chemicals have been documented to affect larger areas, again reducing the amount needed to control the variety of weeds on site.

Other best management practices used by Airfield Grounds Maintenance that aid in reducing chemical use include continually renewing the bark mulch layer, experimenting with a variety of pre-emergent herbicide and selecting products that do not produce dust during application. The airport staff also works closely with Utah State Extension Service to identify specific pests and plants to determine the appropriate mitigation strategy.

Noxious Weed Eradication

One of the airport's weed management goals is to control and effectively manage invasive plant species such as Phragmites. Aerial herbicide application paired with an organized burn event assist in controlling the spread of Phragmites at the airport mitigation site. Desirable wetland plant species are grown at the airport greenhouse and are planted at the mitigation site by the grounds maintenance team after planned burn events to prevent the regrowth and spread of Phragmites and other non-desirable plants. Other noxious weeds that grow at the Wetland Mitigation site and on the airport property are managed by best management practices including annual evaluation, pesticide application, and monitoring to evaluate the effectiveness of the application.

Training

The airport Grounds Maintenance personnel are trained in best management practices for appropriate chemical use and application practices. Several Airport Grounds Maintenance Supervisors have obtained their Pesticide Applicator License. New employees are encouraged to attend the Pesticide Applicator training and those employees with ample experience are encouraged to obtain their applicator license. The training reinforces the concept that pesticides and herbicides are used only when needed and in combination with other practices for more effective weed control. The Airport Grounds Maintenance staff also work closely with other City Departments to review lessons learned and successful alternative practices.

Biological Controls

Airfield Grounds Maintenance recently has begun deploying biological controls as another means of reducing the need for chemicals. When pest populations exceed optimum levels thousands of ladybugs have been released to help control infestations. The Greenhouse staff uses beneficial nematodes and whitefly parasites during poinsettias growing season.

Mechanical Removal

In the event of a grasshopper infestation on the airfield, emergency herbicide applications to quickly eradicate the problem will be employed. Grasshoppers attract rodents, which in turn attract large raptors. The presence of raptors near the airport create a significant safety concern for arriving and departing aircraft. After the herbicide application, the insects are mechanically removed by Airfield Grounds staff to eliminate the food source.

The Grounds Maintenance staff also removes a significant amount of weeds by hand pulling, rather than chemical application, when and where it is appropriate.

Erosion Prevention

Soil erosion is prevented by using straw blankets and planting bio native seed to revegetate hillsides where appropriate. Crushed asphalt is utilized to stabilize slopes where grass is not appropriate.

Water Quality Protection

Water quality is protected by using products near open water and wetland areas that are specifically labeled for use in aquatic environments. After careful herbicide application to ensure minimal impact to the water quality, the treated areas are revegetated with desirable wetland plant species that are grown in the airport greenhouse.

IV. MANAGEMENT ACTIONS

Recordkeeping

Monthly inspection forms are periodically reviewed to look for trends to determine when pest issues are occurring, seasonal versus year-round.

When testing alternative pesticides or herbicides, the type of product being used is documented as well as the pest or weed that is being treated. Specific concentration or additives are tracked, the time of year and outcome of the treatment are also noted. Observations and documentation are key to improving a pest prevention approach.

Staff Involvement

It is important to inform janitorial services and other staff of the presence of pest traps on the airport property. Describe or physically show these staff what the traps look like to help ensure the traps are not disturbed. Janitorial staff are not responsible for monitoring the traps. This is the responsibility of the Airport Facility Maintenance Division.

APPENDIX A: Monthly Inspection Form

Account #:_____ **Facility Name:**_____

PO BOX 2305
Layton, UT 84041

801.771.2000
License #4000-284

Date:_____/_____/20____ **Time IN:**_____am/pm **Time OUT:**_____am/pm

Treatment For

( ) Ants ( ) Box Elder Bugs ( ) Exterior Pest
( ) Spiders ( ) Termites ( ) Interior Pest
( ) Wasps/Hornets ( ) Gophers
( ) Mice/Rats ( ) Voles
( ) Roaches ( ) Refresh Bait
( ) Bedbugs ( ) Barrier to Control Inside Activity
( ) Flies ( ) Other_____

Maintenance & Sanitation Conditions

Y N Premises free of litter and debris?
Y N Garbage containers cleaned and covered?
Y N Exterior doors/windows, rodent/insect proof?
Y N Items stored away from floor and walls?
Y N Drain covers present and in good repair?
Y N Pipes free from leaks?
Y N Vegetation trimmed away from building?

Technician Notes & Recommendations

Serviced and inspected designated accessible areas.

_____
_____
_____
_____
_____
_____
_____

Stay off treated areas/surfaces until dry. Do not tamper with rodenticide placements. Product labels are available upon request.

Areas: 1) Kitchen 2) Restrooms 3) Bedrooms 4) Living Room
5) Utility/Laundry Room 6) Garage 7) Basement 8) Crawlspace 9) Eaves
10) Foundation 11) Deck 12) Porch 13) Patio 14) Break Room
15) Offices 16) Common Area 17) Guest Room 18) Patient Care Area
19) Classrooms 20) Kitchen Areas
21) Exterior Insect Ctrl 22)Exterior Rodent Ctrl 23) Interior Insect Ctrl
24) Interior Rodent Ctrl 25) Other_____

PRODUCT	RATE	AMOUNT	AREAS TREATED	PRICE
Advanced Carpenter Ant Bait	.11% RTU			
Bedlam Regular / Plus	1.93 % 1.45%			
Crossfire Liquid / Aerosol	1.42%			
Cy-Kick Cy-Kick SC	.1% RTU .05% .10%			
Gentrol IGR	.07% RTU			
Glue Boards				
MaxForce Ant Gel	.01% RTU			
MaxForce Roach Gel	.01% RTU			
MaxForce Ant Station	.05% RTU			
MaxForce Roach Station	.05% RTU			
Mother Earth, Diatomaceous Earth				
PT 565	.5% RTU			
Protecta Mouse RTU EVO				
Protecta RAT LP Ambush Express				
Rodent Hard / Soft Bait	Type:			
Suspend SC / Polyzone	.01% .03% .06%			
Steri-Fab	60.80%RTU			
Wisdom TC Flowable / UpStar Gold	.06%			
Wasp Pheromone Trap / Refill				
Total				Total $_____

CUSTOMER SIGNATURE:_____ **TECHNICIAN:**_____ **LICENSE# 4001-**_____

Payment terms are net fifteen (15) days, unless specified on the invoice. Accounts 15 days past due will be subject to a service charge to cover the costs of recovering such accounts.

EPA notes that while EPA has made every effort to ensure the accuracy of all instructions and guidance contained in the Template, the actual obligations of regulated Decision maker(s) are determined by the relevant provisions of the permit, not by the Template. In the event of a conflict between the PDMP Template and any corresponding provision of the PGP, the permit is the final authority. EPA welcomes comments on the PDMP Template at any time and will consider those comments in any future revision of this document.

Pesticide Discharge Management Plan

for:

Salt Lake City Department of Airport
3920 W Terminal Drive
Salt Lake City, Utah 84122

Decision-maker(s):

Salt Lake City Department of Airports
Patty Nelis
P.O. Box 145550
Salt Lake City, Utah 84114-5550
(801) 5753472
Patty.nelis@slcgov.com

PDMP Contact(s):

Salt Lake City Department of Airports
David Tingey
P.O. Box 145550
Salt Lake City, Utah 84114-5550
(801) 531-4653
Insert Fax/Email

PMPD Preparation Date:

01/ 05 /2023

Pesticide Discharge Management Plan (PDMP) Template

Introduction

Any Decision-maker who is required to submit an NOI, as required in the Pesticide General Permit (PGP) Part 1.2.2, and is a large entity, as defined in Appendix A, must prepare a Pesticide Discharge Management Plan (PDMP) by the time the Notice of Intent (NOI) is filed, with two exceptions:

- Any application is made in response to a Declared Pest Emergency Situation, as defined in Appendix A; or
- Any Decision-makers that is required to submit an NOI solely because their application results in a point source discharge to Waters of the United States containing NMFS Listed Resources of Concern, as defined in Appendix A.

To help you develop your Pesticide Discharge Management Plan (PDMP), the U.S Environmental Protection Agency (EPA) has created this electronic PDMP template. The template is designed to help guide you through the PDMP development process and help ensure that your PDMP addresses all the necessary elements stated in the pesticide general permit (PGP). In your PDMP, you may incorporate by reference any procedures or plans in other documents that meet the requirements of the PGP. The template can be used as guidance in determining whether a document meets the requirements of the permit.

This template covers the PDMP elements that the pesticide general permit requires; however, you are strongly encouraged to customize this template to reflect the conditions at your site.

Using the PDMP Template

Each section of this template includes "instructions" and space for project information. You should read the instructions for each section before you complete that section. This template was developed in Word so that you can easily add tables and additional text. Some sections may require only a brief description while others may require several pages of explanation.

Tips for completing the Template:

- The Template generally uses blue text where information is expected to be entered.
- Multiple pest management areas and use pattern(s) may be in the same PDMP.
- Pest management area(s) may be as large as an entire state or as small as cooling water intakes.
- Incorporate by reference any procedures or plans in other documents that meet the requirements of the permit. Attached a copy of any portions of any documents that you refer to in the PDMP.
- Modify this PDMP template so that it addresses the requirements in the pesticide general permit and meets the needs of your project. Consider adding permit citations in the PDMP when you address a specific permit requirement.

Contents

SECTION 1: Operator Information

Instructions (see PGP Part 1.0):

- Describe the Pest Management Area(s) and identify the type(s) of Pesticide Use Patterns, Operator type, and if there will be a discharge to a Tier 3 water.

Note: An "Operator" is defined in Appendix A of the PGP to mean any entity associated with the application of pesticides that results in a discharge to Waters of the United States that meets either of the following two criteria: (1) any entity who performs the application of a pesticide or who has day-to-day control of the application (i.e., they are authorized to direct workers to carry out those activities); or (2) any entity with control over the decision to perform pesticide applications including the ability to modify those decisions. Operators identified in (1) above are referred to in the permit as Applicators while Operators identified in (2) are referred to in the permit as Decision-makers. As defined, more than one Operator may be responsible for complying with this permit for any single discharge from the application of pesticides.

A "Pest Management Area" is defined in Appendix A of the PGP to mean the area of land, including any water, for which an Operator has responsibility for and is authorized to conduct pest management activities as covered by the PGP permit (e.g., for an Operator who is a mosquito control district, the pest management area is the total area of the district). The Pest Management Area could include contiguous and non-continuous sites.

1. Provide a brief description of the Pest Management Area(s).

The pest management areas include perimeter roads, taxiways, runways, entry and exit roadways, along area canals, and the airport mitigation site.

2. Identify the Pesticide Use Patterns for this Pest Management Area that trigger the requirement to develop a Pesticide Discharge Management Plan. (check all that apply). Note: Decision-makers, that are a large entity, are required to develop a PDMP if they are required to submit an NOI. See Part 5.0 of the PGP for exceptions.
   a. ☐ Mosquitoes and Other Flying Insect Pests
   b. ☒ Weeds and Algae
   c. ☒ Animal Pests
   d. ☐ Forest Canopy Pests

3. Operator Type (check one):
   a. ☐ Federal Government
   b. ☐ State Government
   c. ☒ Local Government
   d. ☐ Mosquito control district (or similar)
   e. ☐ Irrigation control district (or similar)
   f. ☐ Weed control district (or similar)
   g. ☐ Other: If other, provide brief description of type of Operator:

SECTION 2: PDMP Team

Instructions (see PGP Part 5.1.1):

- List the Decision-maker, person or organization that prepared the PDMP and/or responsible for revising the PDMP, and the person or organization that will prepare and address corrective actions, adverse incident, and spills. Indicate respective responsibilities, where appropriate.

1. Decision-maker: *Any entity with control over the decision to perform pesticide applications including the ability to modify those decisions.*
   Company or Organization Name: Salt Lake City Department of Airports
   Name: Dave Tingey
   Address: P.O. Box 145550
   City, State, Zip Code: Salt Lake City, UT 84114-5550
   Telephone Number: (801) 531-4653
   Email address: dave.tingey@slcgov.com
   Fax number: Insert fax number (optional)
   Area of Control (if more than one Operator at site): Insert area of control

   Repeat as necessary

2. PDMP Contact: *Person(s) who should be contacted regarding PDMP questions.*

   Company or Organization Name: Salt Lake City Department of Airports
   Name: Dave Tingey
   Address: P.O. Box 145550
   City, State, Zip Code: Salt Lake City, UT 84114-5550
   Telephone Number: (801) 531-4653
   Email address: dave.tingey@slcgov.com
   Fax number: Insert fax number (optional)
   Area of Control (if more than one Operator at site): Insert area of control

   Repeat as necessary

3. This PDMP was Prepared by: *Person(s) responsible for developing and revising the PDMP.*
   Company or Organization Name: Salt Lake City Department of Airports
   Name: Patty Nelis
   Address: P.O. Box 145550
   City, State, Zip Code: Salt Lake City, UT 84114-5550
   Telephone Number: (801) 575-3472
   Email address: patty.nelis@slcgov.com
   Fax number: Insert fax number (optional)
   Area of Control (if more than one Operator at site): Insert area of control

Repeat as necessary

4. Please include any additional team members and their responsibilities.

Team Member Name(s)	Individual Responsibilities
Brent Canham; Senior Roads and Grounds Supervisor	Training. Purchasing materials, Ensuring Proper documentation.
Terry Bleak: Senior Roads and Grounds Supervisor	Training. Purchasing materials Ensuring Proper documentation
Chris Kontgis: Airfield Maintenance Supervisor	Assigning crew members to pesticide mitigation efforts. Training. Purchasing materials Ensuring Proper documentation
Robby Defa: Airfield Maintenance Supervisor	Assigning crew members to pesticide mitigation efforts. Training. Purchasing materials Ensuring Proper documentation
Lamar Stuart: Airfield Maintenance Supervisor	Assigning crew members to pesticide mitigation efforts. Training. Purchasing materials Ensuring Proper documentation

SECTION 3: Problem Identification

3.1 Pest Problem Description

Instructions (see PGP Part 5.1.2):

- Briefly describe the pest problem, including identification of the target pest(s), source of the pest problem, and source of data used to identify the problem in Parts 2.2.1, 2.2.2, 2.2.3, and 2.2.4 of the PGP.

Note: The response will be one or more paragraphs, depending on the nature and complexity of the project. The source of the pest problem may be unknown. EPA does not expect the Decision-maker(s) to conduct long term studies to determine the source of the pest problem.

1. Provide a brief summary of the pest problem in the table.

Summary of Pest Problem

Target Pest(s) *Note: Use common name*	Source of the pest problem	Data Source (e.g. survey conducted in 2010)
Non-native plant species	Soil disruption	Survey conducted each year

2. Provide a brief description of the pest problem.

The Airfield Maintenance Team is responsible for managing grasses and non-native weed species along the airport roadways, runways, taxiways and mitigation site. When area soils are disrupted due to construction projects, non-native weed species proliferate and tend to dominate the native species. The team is also responsible for management and control of field mice, gopher, and vole population.

3.2 Action Threshold(s)

Instructions (see PGP Part 5.1.2):

- Describe the action threshold(s) for pest(s) in the pest management area, including data used in developing the action threshold(s) and method(s) to determine when the action threshold(s) has been met.

Note: An action threshold is the point at which pest populations or environmental conditions necessitate that pest control action be taken based on economic, human health, aesthetic, or other effects. An action threshold may be based on current and/or past environmental factors that are or have been demonstrated to be conducive to pest emergence and/or growth, as well as past and/or current pest presence. Action thresholds are those conditions that indicate both the need for control actions and the proper timing of such actions.

1. Provide a brief summary of the action threshold(s) in the table.

Summary of Action Threshold(s)

Target Pests	Action Thresholds
Non-native noxious weeds	Spraying to manage non-native species is time/seasonal dependent. There are ideal opportunities for applying herbicides to non-native

	species, for example, before blooming, or when a particular plant tassels, etc. [Repeat as necessary]

2. Provide a brief description of the action threshold(s).

   Pest Management Objective: Management and reduction of non-native weeds.

   Target Pest: Non-native species identified in the state of Utah as noxious weeds.

   Action Threshold: Manage and reduce when possible.

   Basis for the action threshold: Agreement with the Army Corps of Engineers to manage non-native species on the airport property.

   Method to determine when the action threshold has been met: Survey and state regulatory guidance.

Repeat as necessary

3.3 General Location Map

Instructions (see PGP Part 5.1.2):

- Provide a general location map (e.g., U.S. Geological Survey (USGS) quadrangle map) that identifies the geographic boundaries of the area to which the plan applies and location of the waters of the U.S.
- To improve readability of the map, some detailed information may be kept as an attachment to the site map and pictures may be included as deemed appropriate.

Include a copy of the general location map for this facility in Attachment A.

3.4 Water Quality Standards

Instructions (see PGP Part 5.1.2):

- Document waters impaired for pesticide(s) or any degradates for which there may be a discharge. Note: Operators are not eligible for coverage under the PGP for any discharges from a pesticide application to Waters of the United States if the water is identified as impaired by a substance which either is an active ingredient in that pesticide or is a degradate of such an active ingredient. See PGP Part 1.1.2.1.
- Indicate the location of all waters, including wetlands, on the general location map.
- Document any Tier 3 (Outstanding National Resource Waters) and any water(s) impaired for a specific pesticide or its degradates to which there may be a discharge.

Note: Decision-maker is not required to make a water quality standard (WQS) determination. Internet links to all state, territory and tribal water quality standards are available at: http://epa.gov/waterscience/standards/wqslibrary/.

Provide a brief summary of Tier 3 waters and waters impaired for pesticides.
The Airfield Maintenance Team applies herbicides in proximity to the Surplus Canal, the Oil Drain, and the North Point Canal at the airport mitigation site. Direct spray into the waters are avoided, however, there is the possibility of drainage from the land bound weeds into the waters nearby.

SECTION 4: Pest Management Options Evaluation

Instructions (see PGP Part 5.1.3):

- Document your evaluation of the pest management options, including combination of the pest management options, to control the target pest(s) in the following sections:
  - No Action
  - Prevention
  - Mechanical/Physical Methods
  - Cultural Methods
  - Biological Control Agents
  - Pesticides
- In your evaluation, you must consider the impact to water quality, impact to non-target organisms, feasibility, and cost effectiveness.

Note: All six pest management options may not be available for a specific use category and/or treatment area. However, the PDMP must include documentation of how the six pest management options were evaluated. The PGP does not require the use of the least toxic alternative or that non-pesticide methods be tried first. Combinations of various pest management options are frequently the most effective Pest Management Measures over the long term. The goal should be to emphasize long-term control rather than a temporary fix. "Pest Management Measure" is defined to be any practice used to meet the effluent limitations that comply with manufacturer specifications, industry standards and recommended industry practices related to the application of pesticides, relevant legal requirements and other provisions that a prudent Operator would implement to reduce and/or eliminate pesticide discharges to waters of the United States.

1. Provide a brief description of the pest management options (include impact to water quality, impact to non-target organisms, feasibility, cost effectiveness and any relevant previous Pest Management Measures).

- Target Pest: Non-native weed species
- No Action: No action sometimes takes place if previous management of weeds has been effective.
- Prevention: Prevention scenarios are discussed when it is apparent that a specific action is responsible for the non-native specie occurrence.
- Mechanical/Physical Methods: Physical methods to control the target species includes spraying, burning, cutting, etc.
- Cultural Methods: Cultural methods include education to prevent the invasion, or replanting an area with desirable plants and monitoring.
- Biological Control Agents: The airport has not used biological control agents.
- Pesticides: Herbicides for non-natives help to manage, but do not eradicate.

Repeat as necessary

2. Provide a summary of Pest Management Measures that will be or are implemented to meet the technology-based effluent limitations.

Target Pest: Non-native species are identified and management practices are evaluated.

Pest Management Measures: Control measures are evaluated, management measures will be implemented when effluent limitations are identified.

Repeat as necessary

SECTION 5: Response Procedures

5.1 Spill Response Procedures

5.1.1 Spill Containment

Instructions (See PGP Part 5.1.4):

- Document the procedure for expeditiously stopping, containing, and cleaning up leaks, spills, and other releases to Waters of the United States.
- Employees who may cause, detect, or respond to a spill or leak must be trained in these procedures and have necessary spill response equipment available. If possible, one of these individuals should be a member of the PDMP team.

All members of the Airfield Maintenance team are trained annually on the applicable pollution control rules and regulations. Many are trained by the state Agricultural Inspectors for proper pesticide use, safety, laws, and by the Airport Environmental Division on proper spill containment and response procedures.

In the event of a spill, regardless of quantity, personnel are instructed to immediately stop the discharge, if possible, without risk of personal injury. Each vehicle is equipped with a spill kit containing materials for handling a minor release. The spill kit contains absorbent pads, pigs, rubber gloves, splash goggles, and plastic bags. The spray crew is instructed to close any valves that may be responsible for the release, contain the discharge using available containment materials and prevent the release from spreading and entering into a water body. Next personnel are instructed to call Airport Control Center, provide there location, the substance discharged, the quantity discharged and any impact to the surrounding area including ditches, ponds, wetlands, etc. Once the emergency response personnel arrive, the spray crew may be asked to evacuate the area or assist in mitigation.

5.1.2 Spill Notification

Instructions (See PGP Part 5.1.4):

- Document the procedure for notification of appropriate facility personnel, emergency response agencies, and regulatory agencies.

In the event of a spill, the Airfield Maintenance Spray team has been trained to notify the Airport Control Center immediately. The Control Center in response will dispatch the Airport Fire Department. Proper protocol for notifying the regulatory authorities typically takes place after the initial response.

1. Airport Control Center is notified (801) 575-2911
2. Airport Fire Department emergency response is dispatched
3. If the spill is larger than 25 gallons and/or has entered the storm drain Airport Environmental is notified.
4. After immediate and/or potential hazards are identified, it is determined whether or not to call the Emergency Response Contractor, EnviroCare (801) 299-1900.
5. If the spill has entered the storm drain and cannot be recovered Salt Lake City Public Utilities is notified.

6. If the spill has entered the storm drain and cannot be recovered, the Utah Division of Environmental Quality, Division of Water Quality (801) 536-4100 is contacted as soon as possible with the details of the release.
7. If the spill is larger than 25 gallons, has entered the storm drain and cannot be recovered, the National Response Center is notified (800) 424-8802 within 24 hours of the release,

5.2 Adverse Incident Response Procedures

5.2.1 Responding to an Adverse Incident

Instructions (See PGP Part 5.1.4):

- Document the procedures for responding to any adverse incident resulting from pesticide applications.

See Section 5.1 Spill Response Procedures

5.2.2 Notification of an Adverse Incident

Instructions (See PGP Part 5.1.4):

- Document the procedures for notification of the adverse incident, both internal to the Decision-maker's agency/organization and external. Contact information for state/federal permitting agency, nearest emergency medical facility, and nearest hazardous chemical responder must be in locations that are readily accessible and available.

See Section 5.1 Spill Response Procedures

SECTION 6: Documentation to Support Eligibility Considerations under Other Federal Laws

Instructions (See PGP Part 5.1.5):

- If applicable, Decision-makers must keep documentation supporting their determination with regard to Part 1.1.2.4 (Endangered and Threatened Species and Critical Habitat Protection).

Include a copy of the documentation in Attachment C

SECTION 7: Signature Requirements

Instructions (see PGP Part 5.1.6):

- The following certification statement must be signed and dated to certify that the PDMP is in accordance with Appendix B, Subsection B.11 of the PGP.

Note: This certification must be re-signed whenever necessary to address any of the triggering conditions for corrective action in Part 6.1 or when a change in pest control activities significantly changes the type or quantity of pollutants discharged.

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the application of pesticides, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Name: Brad Fredrickson Title: Director of Planning

Signature: Date: 1/9/2023

Repeat as needed for multiple Decision-makers at the site.

SECTION 8: PDMP Plan Modifications

Instructions (see PGP Part 5.2):

- You must modify your PDMP whenever necessary to address any of the triggering conditions for corrective action in Part 6.1 or when a change in pest control activities significantly changes the type or quantity of pollutants discharged. Changes to your PDMP must be made before the next pesticide application that results in a discharge, if practicable, or if not, no later than 90 days after any change in pesticide application activities. The revised PDMP must be signed and dated in accordance with the PGP, Appendix B, Subsection B.11.
- You should include significant changes in the activities or their timing on the project, changes in personnel, updates to site maps, and so on.

REFERENCE ATTACHMENT E, F and/or I

SECTION 9: PDMP Availability

Instructions (see PGP Part 5.3):

- You must retain a copy of the current PDMP, along with all supporting maps and documents, at the address provided in Section III.3 of the NOI. The PDMP and all supporting documents must be readily available, upon request, and copies of any of these documents provided, upon request, to EPA; a State, Territorial, Tribal, or local agency governing discharges or pesticide applications within their respective jurisdictions; and representatives of the U.S. Fish and Wildlife Service (USFWS) or the National Marine Fisheries Service (NMFS). EPA may provide copies of your PDMP or other information related to this permit that is in its possession to members of the public.
- Any Confidential Business Information (CBI), as defined in 40 CFR Part 2, may be withheld from the public provided that a claim of confidentiality is properly asserted and documented in accordance with 40 CFR Part 2; however, CBI must be submitted to EPA, if requested, and may not be withheld from those staff within EPA, FWS, and NMFS cleared for CBI review.

ATTACHMENTS

Attach the following documentation to the PDMP:

Attachment A – General Location Map

Attachment B – Pesticide General Permit

Attachment C – NOI and Acknowledgement Letter from EPA/State

Attachment D – Adverse Incident Report

Attachment E – Corrective Action Log

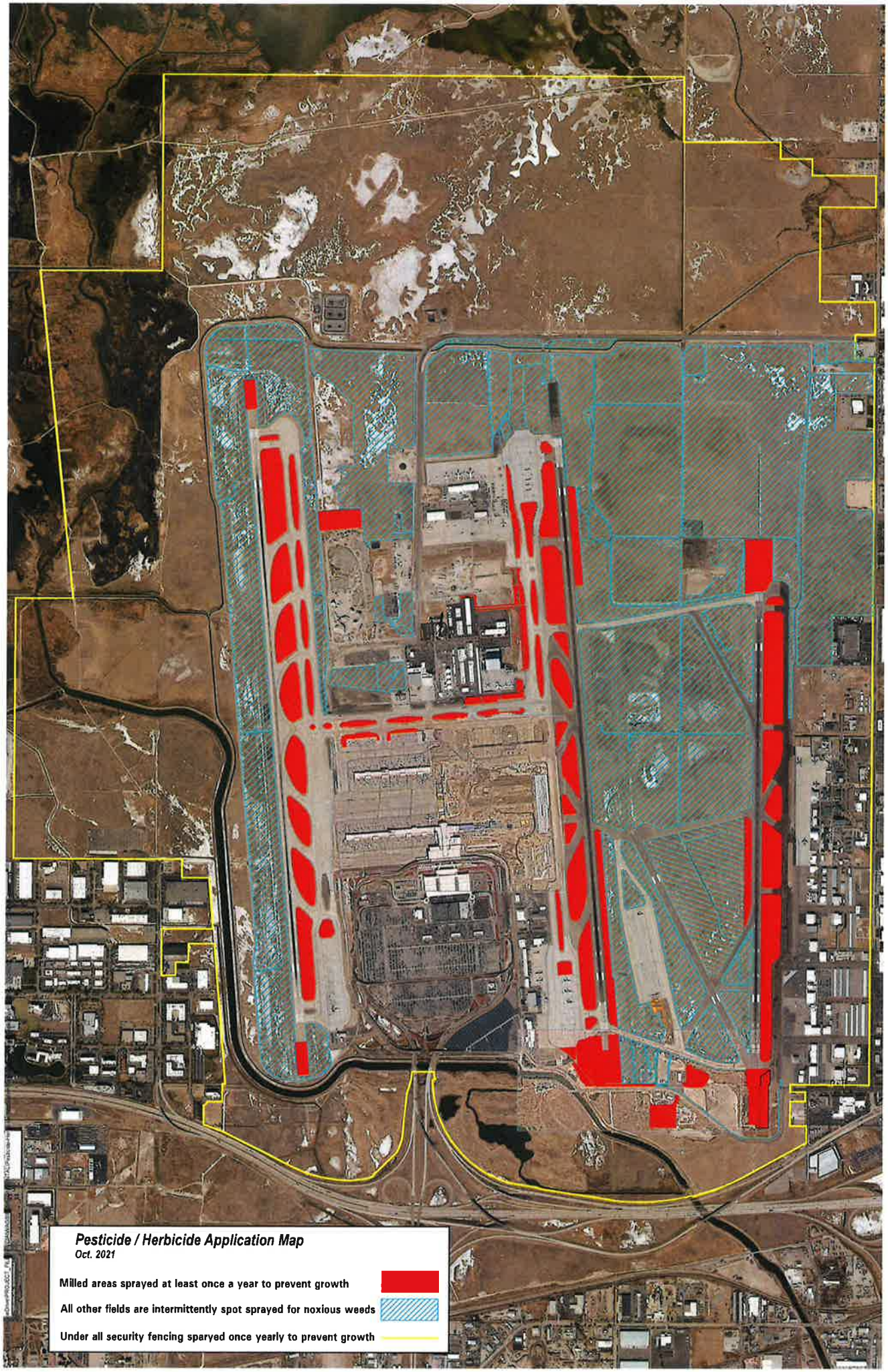
Attachment F – PDMP Amendment Log

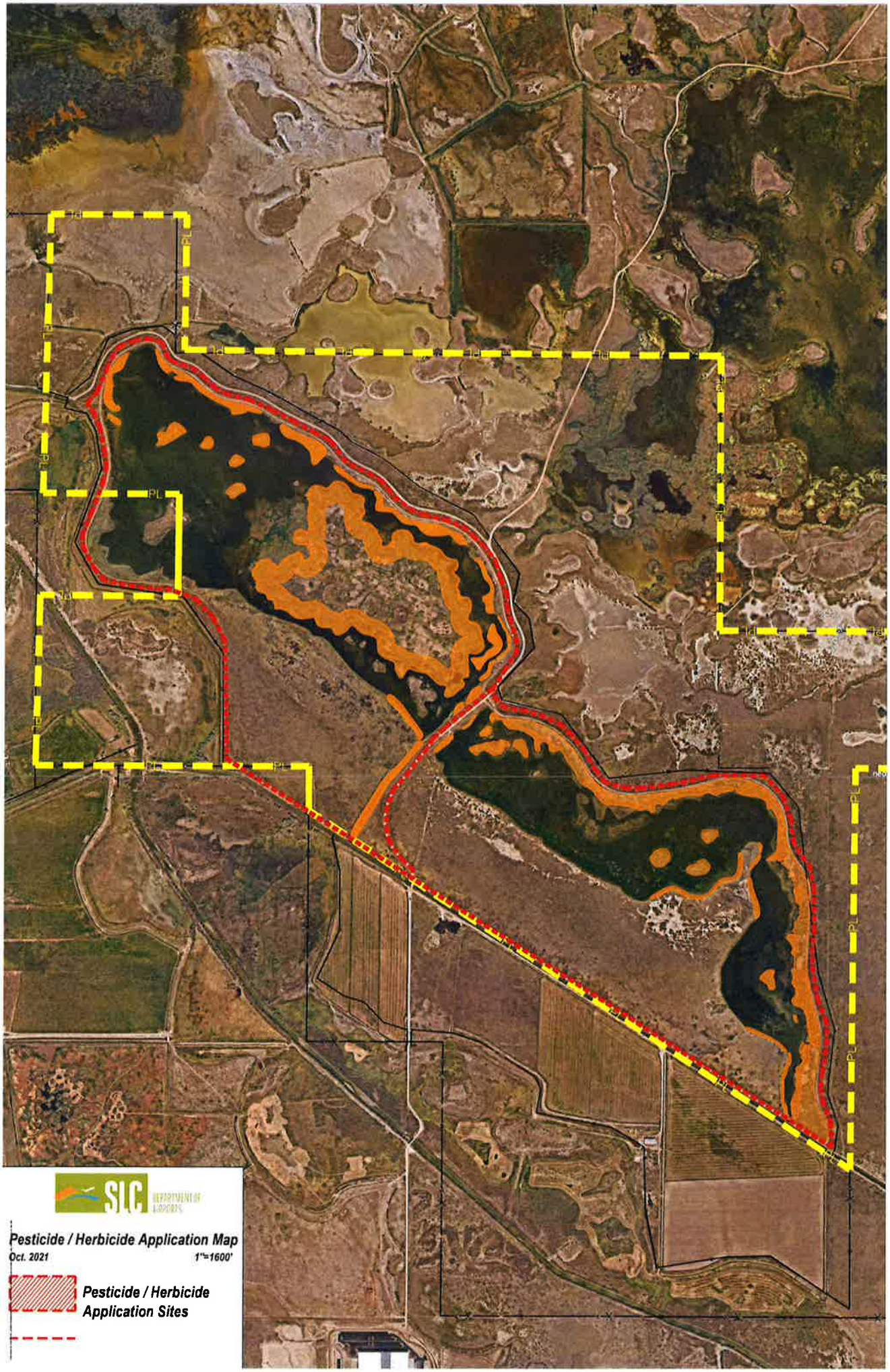
Attachment G – Subcontractor Certifications/Agreements

Attachment H – Delegation of Authority

Attachment I – Annual Reports and Other Record Keeping

Attachment A – General Location Map


Pesticide / Herbicide Application Map
Oct. 2021
Milled areas sprayed at least once a year to prevent growth
All other fields are intermittently spot sprayed for noxious weeds
Under all security fencing sparyed once yearly to prevent growth


SLC
DEPARTMENT OF AIRPORTS
Pesticide / Herbicide Application Map
Oct. 2021
1"=1600'
Pesticide / Herbicide Application Sites

Attachment B – Pesticide General Permit

Attachment C – NOI and Acknowledgement Letter from EPA/State

WATER QUALITY

UTAH DEPARTMENT OF ENVIRONMENTAL QUALITY
DIVISION OF WATER QUALITY
Utah Pollutant Discharge Elimination System (UPDES)

NOI

Notice of Intent (NOI) to Discharge Pesticides to Surface Waters of the State
UPDES Pesticide General Permit, No. UTG170000

Submission of this Notice of Intent constitutes notice that the operators identified in this form intend to be authorized by UPDES Pesticide General Permit, UTG170000, issued for pesticide discharges in the State of Utah.

OPERATOR INFORMATION:

NOI Submission Date: 1/9/23

Operator Name: Salt Lake City Dept. of Airports **Phone:** (801) 575-2401

Responsible Contact Person: Patty Nelis **Phone:** (801) 575-3472

Physical Address: 3920 W Terminal Drive, SLC, UT 84122

Mailing Address: P.O. Box 145550, SLC, UT 84114

Email Address: patty.nelis@slcgov.com

If the pesticide application takes place on Indian land, coverage is not available under this permit. Please contact Margaret Kennedy of EPA Region 8, at (303) 312-6644, for permit coverage on Indian lands.

Pesticide Use Patterns (Pesticide Permit, Part I.C) (check all that apply):

- ☐ **Mosquitoes and other insect pests**
- ☒ **Weed and Plant Control**
- ☒ **Nuisance Animal Control**
- ☐ **Forest Canopy Pest Control**
- ☐ **Algae, Cyanobacteria, Pathogens, or Nutrient Abatement**

Receiving Waters:

- ☒ **A map is provided for the location(s) of pesticide application;**
- ☐ **A description of the locations of pesticide application sites; as a minimum, county, city, and major water body(s) below for this use, the hydrologic unit code (HUC) if available, the name of major water body(s), and latitude and longitude of any major unnamed water body(s).**
- ☐ **Utah Lake applications for algae, cyanobacteria, pathogens, or nutrient abatement.**

County	City	Water Body or Map if more than 10 Waters	Latitude and Longitude
SaltLake	SaltLake	Surplus Canal	40°46'06"N 111°58'13"W
		City Drain	40°47'27"N 111°57'29"W
		North Point Canal	40°46'22"N 111°58'47"W

Who is Required to submit a NOI?

Please refer to Part I.A and C, of the permit.

Where to Submit the NOI?

Utilize NeTPGP

Attachment D – Adverse Incident Report

Attachment E – Corrective Action Log Template

Project Name:
PDMP Contact:

Date	Description of Problem triggering the Corrective Action	Corrective Action Needed (including planned date/responsible person)	Date Action Taken/Responsible person

Attachment F – PDMP Amendment Log Template

Project Name:
PDMP Contact:

Amendment No.	Description of the Amendment	Date of Amendment	Amendment Prepared by [Name(s) and Title]

Attachment G – Subcontractor Certifications/Agreements Template

SUBCONTRACTOR CERTIFICATION
PESTICIDE DISCHARGE MANAGEMENT PLAN

Project Number: _____

Project Name: _____

Decision-maker(s): _____

As a subcontractor, you are required to comply with the Pesticide Discharge Management Plan (PDMP) for any work that you perform for the above designated project. Any person or group who violates any condition of the PDMP may be subject to substantial penalties or loss of contract. You are encouraged to advise each of your employees working on this project of the requirements of the PDMP. A copy of the PDMP is available for your review.

Each subcontractor engaged in pesticide activities in the pest management area that could impact Waters of the United States must be identified and sign the following certification statement:

I certify under the penalty of law that I have read and understand the terms and conditions of the PDMP for the above designated project.

This certification is hereby signed in reference to the above named project:

Company: _____

Address: _____

Telephone Number: _____

Type of pesticide application service to be provided: _____

_____

_____

Signature: _____

Title: _____

Date: _____

Attachment H – Delegation of Authority Form Template

Delegation of Authority

I, _____ (name), hereby designate the person or specifically described position below to be a duly authorized representative for the purpose of overseeing compliance with environmental requirements, including the Pesticide General Permit, for the _____ project. The designee is authorized to sign any reports, other documents required by the permit.

_____ (name of person or position)
_____ (company)
_____ (address)
_____ (city, state, zip)
_____ (phone)

By signing this authorization, I confirm that I meet the requirements to make such a designation as set forth in Appendix B, Subsection B.11.A of EPA's Pesticide General Permit (PGP), and that the designee above meets the definition of a "duly authorized representative" as set forth in Appendix B, Subsection B.11.A.

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the pest management area, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Name: _____

Company: _____

Title: _____

Signature: _____

Date: _____

Attachment I – Annual Reports and Other Record Keeping

The following is a list of records you should keep at your site and available for inspectors to review:

- Copies of Annual Reports
- Records as required in PGP Part 7.4

Check your permit for additional details