



International Civil Aviation Organization

RASG-MID Steering Committee

Sixth Meeting (RSC/6)  
(Cairo, Egypt, 25-27 June 2018)

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**Agenda Item 3: Regional Performance Framework for Safety**

**WILDLIFE HAZARD MANAGEMENT PLAN TEMPLATE**

*(Presented by the Secretariat)*

<b>SUMMARY</b>
This paper presents the revised version of WHMP Template for endorsement by the RSC. Action by the meeting is at paragraph 3.
<b>REFERENCES</b>
- RGS WG/4 Report

**1. INTRODUCTION**

1.1 Wildlife hazard management presents a unique challenge to aerodrome managers because of the vast diversity of species that can be hazardous to aircraft operations. Wildlife hazards, like any other hazard to aviation safety, should be identified, assessed and managed in order to reduce the risk. An assessment of habitats in and around the aerodrome that have the potential to attract wildlife is also needed so that the habitat can be managed to reduce the presence of species identified as constituting the risk to flight safety.

1.2 The Wildlife Hazards Management Plan sets out the actions required to reduce wildlife hazards in and around critical aircraft operating areas and decrease the risk of strike.

**2. DISCUSSION**

2.1 With respect to Wildlife Management and Controls, the Fourth meeting of the Runway and Ground Safety Working Group (RGS WG/4) that was held at the ICAO Middle East Regional Office in Cairo, Egypt, from 5 to 7 November 2017, noted that the RASG-MID Safety Advisory (RSA) on Wildlife Hazards Management and Control was endorsed by the RASG-MID/6 meeting in September 2017 and was circulated to all MID States on 23 October 2017.

2.2 As part of the MID-RAST/RGS/5 DIP; the RGS WG/4 meeting reviewed the WHMC Plan Template as at **Appendix A** and recommended its circulation to MID States for their comments before endorsement. The WHMC Plan Template considered as an attachment to RASG-MID Safety Advisory on WHMC (RSA-13) which is available on the ICAO MID website: <https://www.icao.int/MID/Pages/rasgmid.aspx>.

2.3 The meeting agreed that coordination should take place with RASG Steering Committee to expedite the endorsement of the Wildlife Hazard Management and Control Template and to be issued as an Appendix to the existing RSA on Wildlife Hazards Management and Control. Accordingly; the meeting agreed to the following Draft Conclusion:

*DRAFT CONCLUSION 4/2: WILDLIFE HAZARDS MANAGEMENT AND CONTROL (WHMC) PLAN TEMPLATE*

*That, the WHMC Plan Template be included as an Appendix to the RASG-MID Safety Advisory (RSA) on Wildlife Hazards Management and Control.*

**3. ACTION BY THE MEETING**

3.1 The meeting is invited to:

- a) review and endorse, as appropriate, the WHMC Plan Template at **Appendix A**; and
- b) endorse, as appropriate, the Draft Conclusion 4/2.

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APPENDIX A

RASG-MID SAFETY ADVISORY – 13 ATTACHMENT

(RSA-13 – Appendix A)

XXX 2017

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# Guidance on Wildlife Hazard Management and Control Plan Template

Date of Issue:	
Revision No:	1
Document Ref. No.:	RASG- MID/RAST/RGS/5 –Appendix 1
Owner:	RASG-MID

These guidelines are developed by the Runway and Ground Safety Working Group (RGS WG), as part of MID-RAST/RGS/4 DIP deliverables, based on the work of the Sudanese Civil Aviation Authority, the United Arab Emirates Civil Aviation Authority and the Egyptian Civil Aviation Authority in collaboration with the ICAO MID Regional Office within the framework of the Regional Aviation Safety Group - Middle East (RASG-MID).

## **Disclaimer**

This document has been compiled by members of the aviation industry to provide guidance for civil aviation regulators, aerodrome operators and other stakeholders in order to enhance aviation safety. It is not intended to supersede or replace existing materials produced by the States national regulators or in ICAO SARPs. The publication of this document does not prejudice the National Regulator's ability to enforce existing national regulations. To the extent of any inconsistency between this document and the National/International regulations, standards, recommendations or advisory publications, the content of the National/International regulations, standards, recommendations and advisory publications shall prevail.

**ANYNAME? AERODROME**

**WILDLIFE HAZARD MANAGEMENT PLAN**

**LIST OF EFFECTIVE PAGES**

<b>Chapter</b>	<b>Title</b>	<b>Number of Pages</b>	<b>Effective Date</b>

**RECORD OF AMENDMENTS**

No.	Issue Date	Pages

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**COMPANY/AERODROME NAME****WILDLIFE HAZARD MANAGEMENT PLAN (WHMP)****Issue 1****Date:****Chapter 1****1.1 Goals and Objectives**

The goal of this WHMP is to minimise risk for passengers and flight crews by reducing wildlife hazards and associated risks to aircraft and airport operations caused by wildlife activities on and in the vicinity of the airport.

The objectives of the WHMP are to:

- Target high and moderate risk species and habitats that primarily support them both on and off the airport
- Ensure compliance with all relevant airport operational and environmental legislation and regulations
- Ensure that adequate systems are in place to define roles, responsibilities and procedures for managing wildlife risks at [ANY AIRPORT]
- Define the methods by which wildlife hazards are managed at [ANY AIRPORT]
- Develop performance goals and targets for management of wildlife issues and outline how these will be assessed and reviewed

*[Add to or delete as appropriate]*

**1.2 The Airport**

[ANY AIRPORT] is situated in the [LOCAL GOVERNMENT AREA NAME] in [STATE/TERRITORY]. A description of the airport is provided in Table 1 below.

Table 1 - [ANY AIRPORT] general information

<b>Element</b>	<b>Description</b>
Airport location	[DESCRIPTION]
Surrounding land use(s)	[DESCRIPTION]
Elevation	[DESCRIPTION]
Airport ownership	[DESCRIPTION]
Airport operator	[DESCRIPTION]
Traffic profile	[DESCRIPTION]
Runways no./ designation	[DESCRIPTION]
Navigation aids	[DESCRIPTION]
Communications	[DESCRIPTION]
Hours of operation	[DESCRIPTION]

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Climate	[DESCRIPTION]
Other	[DESCRIPTION]

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### 1.3 The Management of the Wildlife / Bird Strike Risk (Policy Statement)

[ANY AIRPORT] is committed to ensuring the safety of aircraft using [ANY AIRPORT]. While the safety of aircraft at [ANY AIRPORT] is paramount, it is not possible to prevent all wildlife strikes. The WHMP aims to reduce the frequency and severity of strikes by focusing management efforts on species and habitats that constitute significant hazards to aircraft that operate at [ANY AIRPORT].

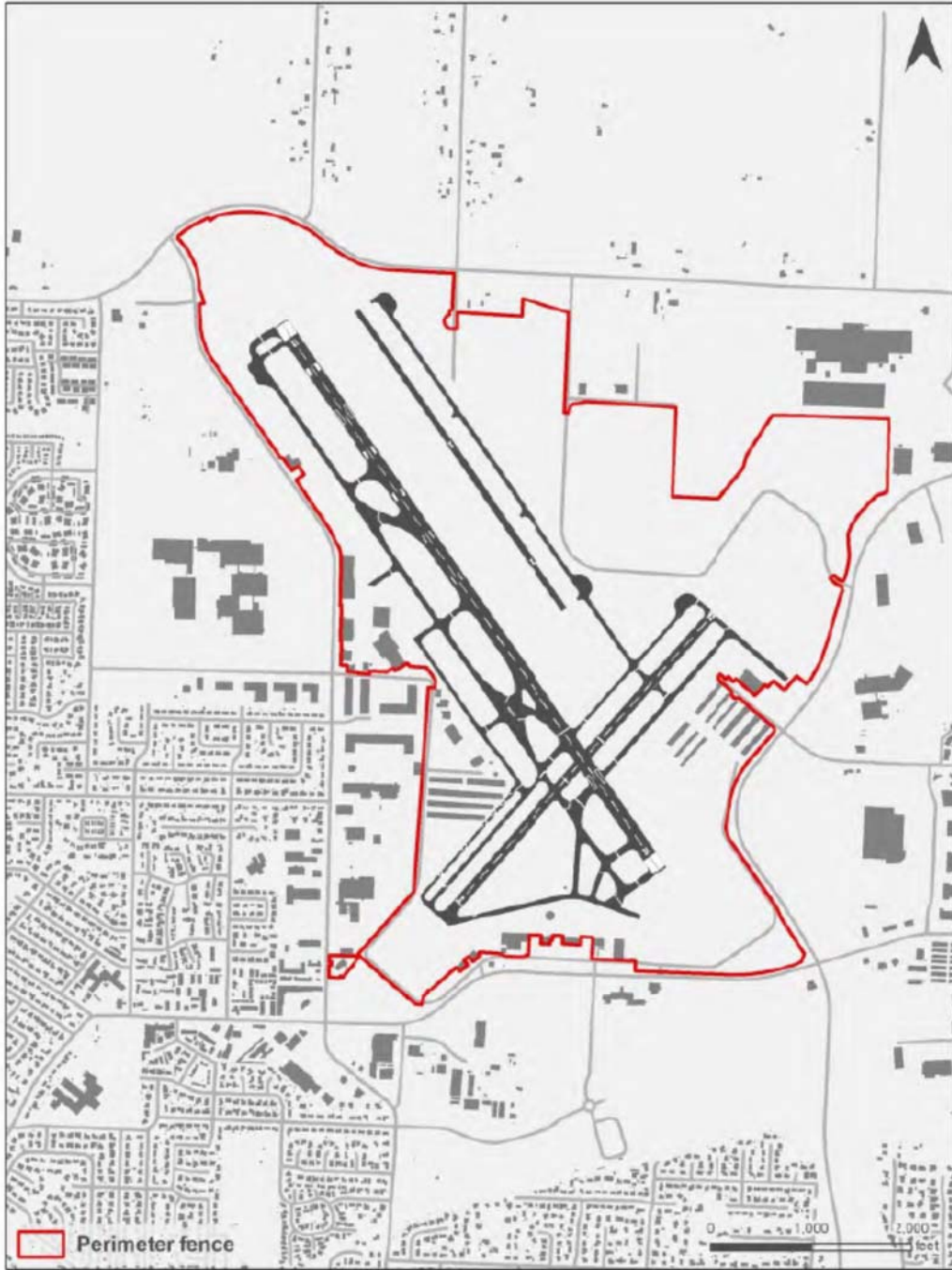
*[Add to or delete as appropriate or insert your existing airport policy relating to wildlife management]*

ANYAIRPORT have measures in place, which are aimed at deterring wildlife and birds from settling, and flying on and in the lower flight paths in the vicinity of the airfield as is reasonably practicable.

These measures include:

- Hazard Identification and Risk Assessment of bird activity (see SMS Doc)
- A Wildlife Hazard Management Plan (WHMP)
- Control procedures introduced aimed at reducing the presence of wildlife on the airfield and therefore reducing the risk of a wildlife / bird strike.
- The effective use of resources and equipment?
- A suitably trained wildlife / bird Control Co-Ordinator (WCCO) to oversee the Wildlife Hazard Management Plan

These measures reflect the principles of safety management which the Aerodrome Operator is required to apply to all aspects of aircraft operations within its responsibility.



**Airport Layout Plan**

## Wildlife Hazard Management Plan

### Chapter 2

#### 1. Roles & Responsibilities

The roles and responsibilities of ANYAIRPORT staff are important elements of the Aerodrome Operator's Safety Management System and a contribution to the effectiveness of the WHMP. All staff will have a thorough understanding of their roles within the plan. The roles and responsibilities are detailed below:

##### 1.1. Aerodrome Manager/wildlife/bird Control Manager

The Overall accountability for bird control lies with the Aerodrome Licence holder/Director/Safety Action Group (SAG), However, the responsibility could be delegated to the Aerodrome Manager/BCCO whose core responsibilities are to:

- Assess the **wildlife/bird** strike risk level
- Determine policy and produce and review the WHMP
- Implement the WHMP
- Ensure the inclusion in the Aerodrome manual is correct

The role includes the following tasks:

- Monitoring and acting on **wildlife/bird** behavior on and in the vicinity of the Aerodrome
- Implementation of habitat management i.e.: Vegetation policy, maintenance programmes in accordance with WHMP and to review and introduce modifications to this programme when necessary
- Analyse and interpret the log records of bird control activity and bird strike Reports and ensure this information is promulgated to all stakeholder and the accountable person
- Regular surveys of **wildlife/bird** concentration and movements in the local area. Liaising with local **wildlife/bird** watchers associations for further information
- Liaise with local land owners and game keepers to obtain information on farming plans, game conservation etc
- Seeking advice and assistance where appropriate from Local Planning Authority and outside specialists on matters requiring expert advice
- To ensure the WHMP reflect the current policy of the CAA and best practice in the aviation industry.

## Wildlife Hazard Management Plan

### 1.2. Wildlife ~~bird~~ Control Co-Ordinator (WCCO) and Deputy (*or equivalent position*)

The overall responsibility for wildlife/bird control lies with the Aerodrome Manager/wildlife/bird control manager however the day-to-day management and efficient implementation of the WHMP lies with the wCCO. (The wCCO should have had some training on the subject and preferably have an active interest in bird control)

Ref. to attachment 2-a describe the example of training program

Their role includes the following tasks:

- Advise the Aerodrome Manager on all matters relating to wildlife/bird activity and wildlife/bird strike prevention
- Plan and organise all wildlife/bird control operations in accordance with the WHMP
- Ensure bird control operations are implemented in accordance with the WHMP
- Supervise bird control record keeping
- Assist with the supervision of intelligence gathering and planning
- Ensure the correct maintenance of the wildlife/bird control equipment
- Provide information and communications between all interested parties/stakeholders
- Provide a periodic (could be quarterly, six monthly or annual) wildlife/bird control report to the accountable person/s

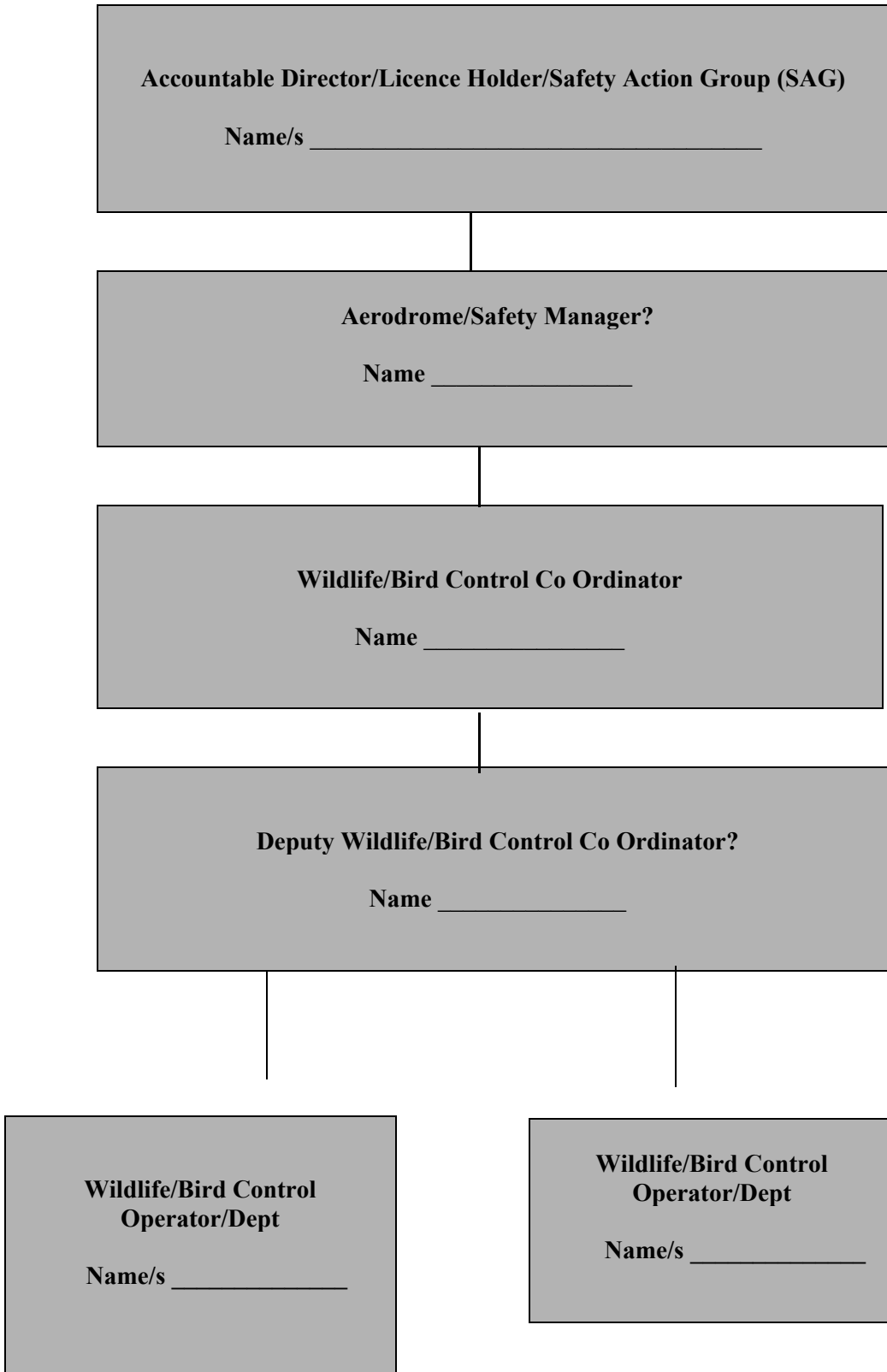
### 1.3. The Wildlife/Bird Control Operator Performs the Front Line Role

Their role includes the following tasks:

- Maintain proactive surveillance of wildlife/bird activity on the airfield
- Implement active wildlife/bird control measures in accordance with the WHMP
- To reduce wherever possible any identified wildlife/bird strike risk
- Record wildlife/bird and wildlife/bird control activity including any dispersal methods used
- Record and report actual, potential or suspected wildlife/bird strikes

*Note: Appendix E Key Roles and Responsibilities in RSG 4 provides a guide for the key roles and responsibility, for further information can be found: ICAO Airport Service Manual, part 3, Wildlife Control and Reduction, 3.3 Role of the Airport Operator and 3.4 Role of Bird/ Wildlife Strike Control Coordinator and ACI Wildlife Hazard Management Handbook Section 2*

2. **Flow Chart**



**Attachment 2-a  
Training Program**

The Wildlife Management and Planning Regulation requires that a training program be established for the AWMP in accordance with the airport standards. Properly trained staff to implement the plan, to reassess risks and to provide updates to this plan every two years, is an essential and required part of the regulation.

Effective wildlife management is critically dependant on staff with the tools, knowledge and motivation to complete the task at hand. The program will address the following:

- Nature and Extent of the Wildlife Management Problem;
- Regulations, Standards and Guidance;
- Wildlife Control Procedures Manual
- Species of Conservation Concern;
- Liability;
- Habitat Management;
- Issues Outside of the Airport Boundary;
- Active Management;
- Removal Techniques;
- Wildlife Management Planning;
- Development and Implementation of Awareness Programs;
- Monitoring; and,
- Training Record and Schedule.

In addition to training directly associated with wildlife behaviour and the application of management techniques as part of the AWMP, it is essential that safety requirements are fully reviewed and addressed. This should include at a minimum:

- Safe use and storage of pyrotechnics;
- Safe use, storage and maintenance of pyrotechnic launchers; and
- Identification and mandatory use of safety equipment.

The following table details the staff who have attended the training program or are proposed to do so.

**Table .Training Program**

Name	Responsibility/ Title	Attended Training Program	Will Attend Training Program by
	<ul style="list-style-type: none"> <li>• Airport Manager</li> <li>• Wildlife Management Officer</li> </ul>		
	<ul style="list-style-type: none"> <li>• Duty Manager</li> <li>• Back-up WMO</li> </ul>		

## Wildlife Hazard Management Plan

### Chapter 3

#### 1. Hazard Identification

In order to manage the risk of a wildlife/bird strike ,aerodrome has developed a procedure for obtaining information regarding the potential wildlife/bird strike risk. wildlife/bird Activity on and in the vicinity of the airfield is assessed on a regular basis and a Hazard Log/Risk Assessment produced.

Probability and severity of a risk vary with species, i.e. geese or skylark and time of year for a particular species i.e. rooks peek in March/April.

*Note: Appendix c in RSG4 provides a guide for the Risk Analysis  
for further information can be found: ICAO Airport Service Manual, part 3, Wildlife Control and Reduction, ch 6 , icao doc 9859 and ACI Wildlife Hazard Management Handbook Section 3*

#### 2. Example Hazard Log

HAZARD IDENTIFICATION	RISK ASSESSMENT DONE	RISK ACCEPTABLE?
Wood pigeon activity on the south side of the aerodrome	03/07/08 and filed in ref	Yes



**3. Example Risk Assessment** carried out for  
Bird Activity on the Aerodrome

Significant Hazards identified from (name source) eg MOR	Severity Value (S) <i>(see 1)</i>	Likelihood Value (L) <i>(see 1)</i>	Level of Risk (S x L) <i>(see 2)</i>	Control Measures to be Implemented	Action By:	Revised Level of Risk <i>(see 3)</i>
Wood pigeon activity on the south side of the aerodrome						

1. For Severity and Likelihood Value, refer to Risk Assessment Matrix attached
2. For Level of Risk, multiply Severity Value x Likelihood Value
3. For Revised Level of Risk, repeat Severity Value x Likelihood Value after implementing control measures

**Level of Risk Key:**

1 to 4	Risk <b>Acceptable</b>
5 to 9	Risk <b>undesirable</b> (but tolerable)
10 to 25	Risk <b>Unacceptable</b>

## **Wildlife Hazard Management Plan**

### **Chapter 4**

#### **Risk Reduction**

Prevention of a bird strike is not always possible, so to reduce the risk a WHMP has been formulated and introduced as part of Anynames Aerodromes Safety Management System (SMS).

Our Airfield activities include (Examples: the correct use of the 'Scarecrow Bio-acoustic system', trained staff, recording bird activity and dispersal, habitat management i.e. vegetation removal/cutting and/or grass treatment, culling activity with the local gun club).

Good control should be achievable on the airfield: however, off airfield, control could be less achievable. (See page 10)

## Wildlife Hazard Management Plan

### Chapter 5

#### 1. Bird strike Reporting

- 1.1. Bird/wildlife incidents are defined in( *demonstrate your incident reporting system , this system may be electronic or other* ). These are:

1. Confirmed Strikes
2. Unconfirmed Strikes
3. Serious incidents

- 1.2. The airfield records all bird strikes as far as it is able. This data is submitted to the CAA by electronic/other format standard reporting form.

The form can be found in (Aerodrome Reference Document \_\_\_\_\_)

#### 2. Online Reporting

*The UAE online reporting system, can be used as a guide to establish reporting system of incident reported*

*<https://www.gcaa.gov.ae/en/rosi/Pages/home.aspx>*

## Wildlife Hazard Management Plan

### Chapter 6

#### 1. Bird/Wildlife Management of the Airfield

1.1. ICAO defines the vicinity of an aerodrome as a 13km bird circle surrounding the airfield. The anytime aerodrome conducts annually a survey of 'Off airfield' issues. These include current developments and proposed developments such as for example:

- Landfill sites (food waste attracts gulls and starlings which travel up to 30 miles)
- Aggregate developments (large areas filled with water attract feral geese etc)
- Industrial developments with flat roofs (these provide a safe breeding habitat for gulls and waders)
- Sustainable Drainage Schemes (SUDS) which attract feral geese and wildfowl
- Amenity planning (short grass and bird feeding by the public attract various species)
- Golf Courses (water and short grass attract feral geese etc)
- Nature Reserves (designed to improve bio-diversity attract several species)

#### Airport Developments

1.2. The airport operator liaison with non-airport agencies and local landowners for any development that may attract significant numbers of hazardous birds/wildlife. Any new developments (crop harvesting, seed planting, ploughing, establishment of land or water features, hunting, etc., that might attract birds/wildlife) are subjected to the aerodrome safeguarding policy and to a risk assessment process and changes to the proposal sought or opposed if a significant increase in bird activity is likely and bird strike risk is increased as a result

#### 2. List All Sites Below (High Risk within 5km)

2.1. These sites identified are all within 5km of the airfield and are listed below, numbered in order of risk to the aerodrome, with a summary of the site, and these sites are illustrated on the Bird Circle map /wild life attraction maps

1. Anyname mere
2. Anyname water park
3. Anyname nature reserve
4. Anyname refuse disposal site

2.2. These sites are outside the 5km, but fall within the ICAO 13km circle surrounding the airfield, however they attract significant wildlife /bird species and are included for the purpose of bird/wildlife management off airfield.

**3. List All Sites Below (Low Risk outside 5km but within 13km)**

5. Anyname Fishing Club
6. Anyname Housing Development

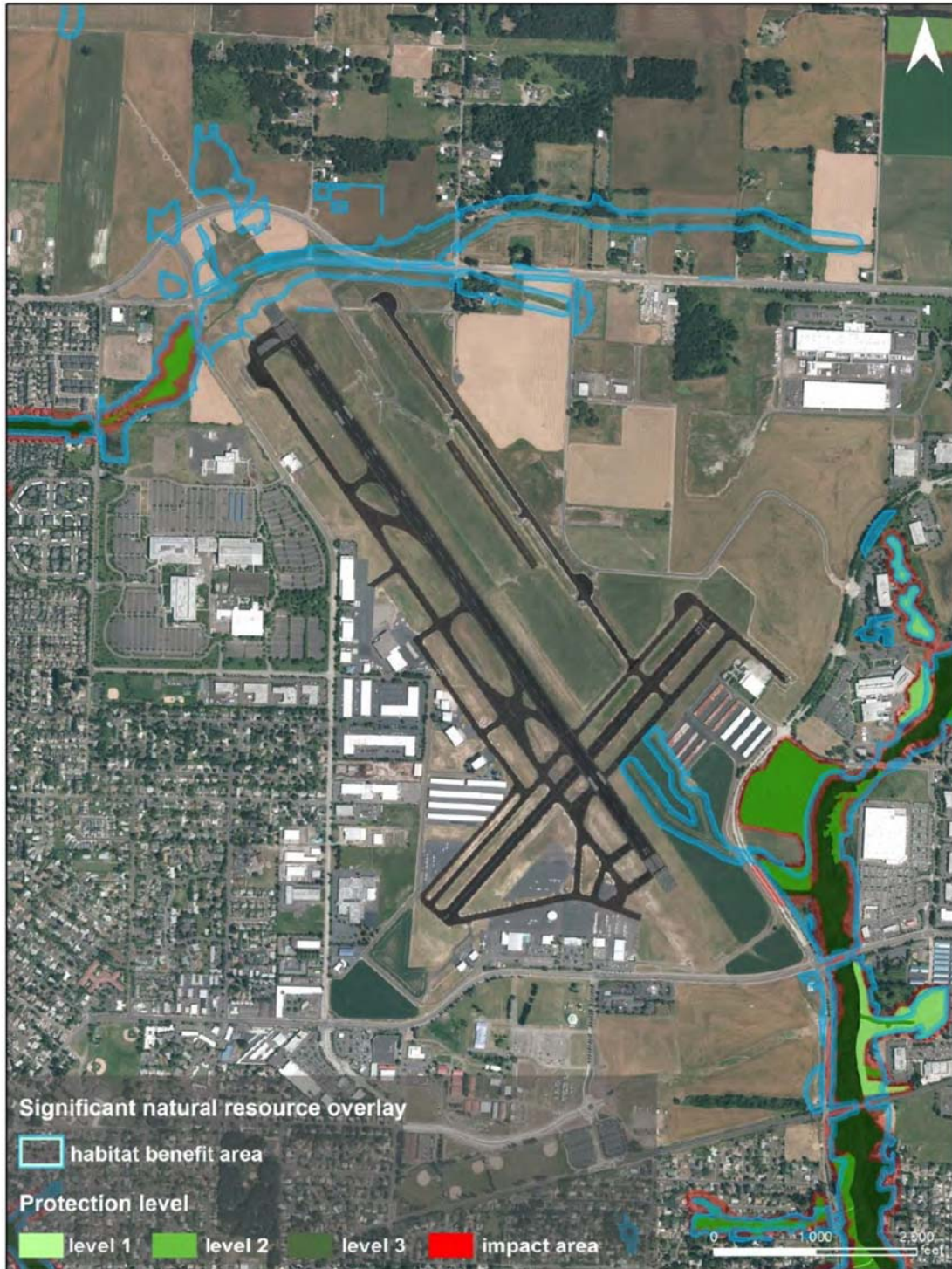
**EXAMPLES of what a LOW/HIGH Risk Site Information Plan Might Look Like:**

**Protocol of site information for priority targets**

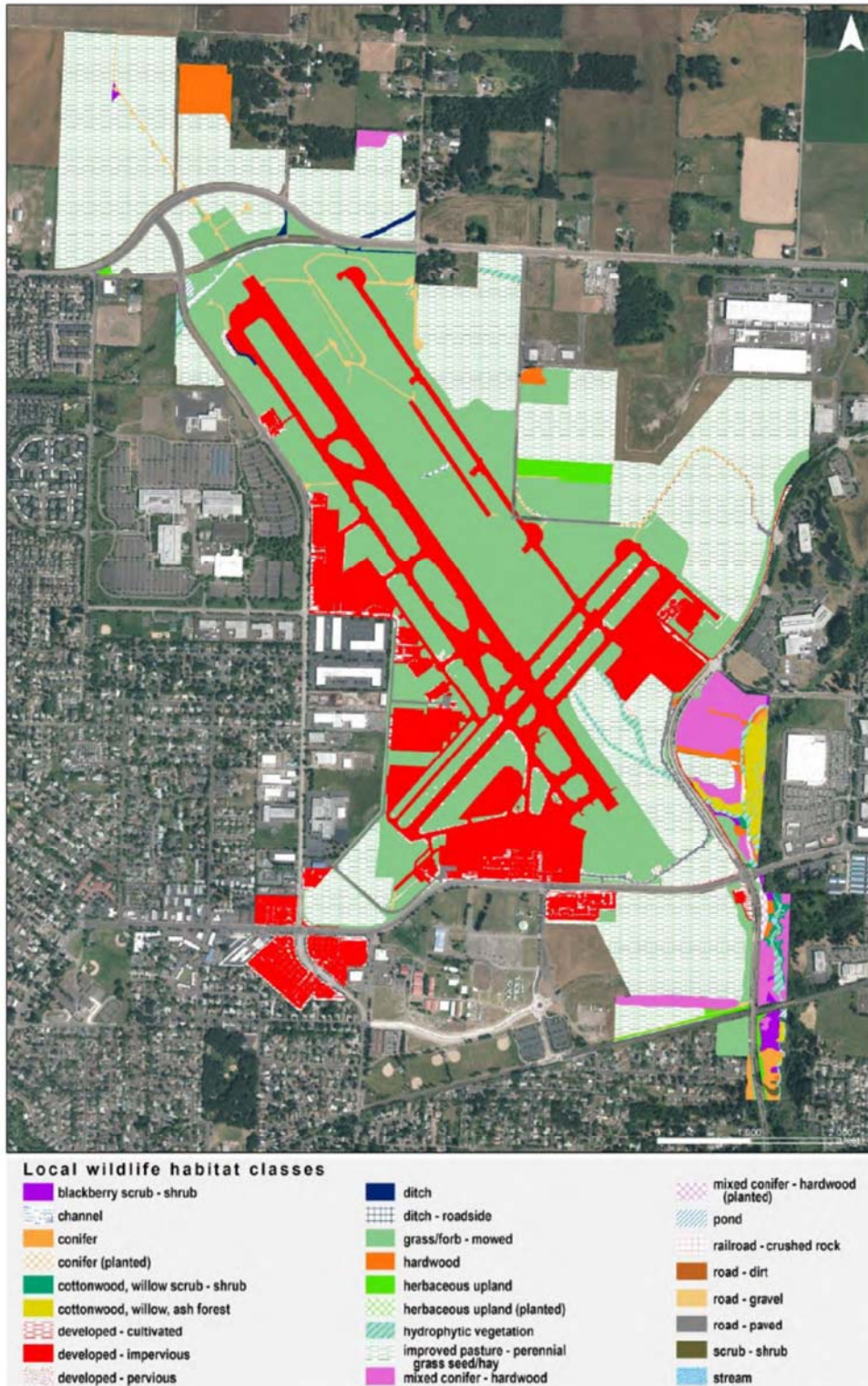
<b>Ref: 5</b>	<b>Risk: LOW</b>	<b>Site:</b>	<b>Name of site</b>		
<b>Description</b>	<b>Medium sized fishing lake?</b>				
<b>Os grid ref</b>	<b>SJ813713</b>		<b>Co-ordinates</b>	<b>381375</b>	<b>371375</b>
<b>Distance from airport</b>	<b>6.4 miles</b>		<b>Bearing in degrees</b>	<b>178.50</b>	
<b>Contact</b>	<b>Name of Fishing Club or person in charge.</b>		<b>Telephone</b>		
<b>Month visited/date</b>			<b>Time</b>		
<b>Site description</b>					
<b>Area/size of water body</b>	<b>Approx</b>				
<b>Adjacent terrestrial habitat</b>					
<b>Photograph</b>					
<b>Aerial photograph</b>					
<b>Usage</b>	<b>Private fishing club. No public access and no sign of disturbance other than fishing.</b>				
<b>Management</b>	<b>Well-managed site by the Fishing Club Committee and happy to provide updates on bird activity when requested?</b>				
<b>Species name</b>	<b>Population count</b>	<b>Acitivity</b>			
<b>Canada Geese</b>	<b>4</b>	<b>roosting</b>			
<b>Coot</b>	<b>3</b>	<b>present</b>			
<b>Mallard</b>	<b>8</b>	<b>present/ roosting</b>			
<b>Little Grebe</b>	<b>1</b>	<b>Calling (territorial display)</b>			

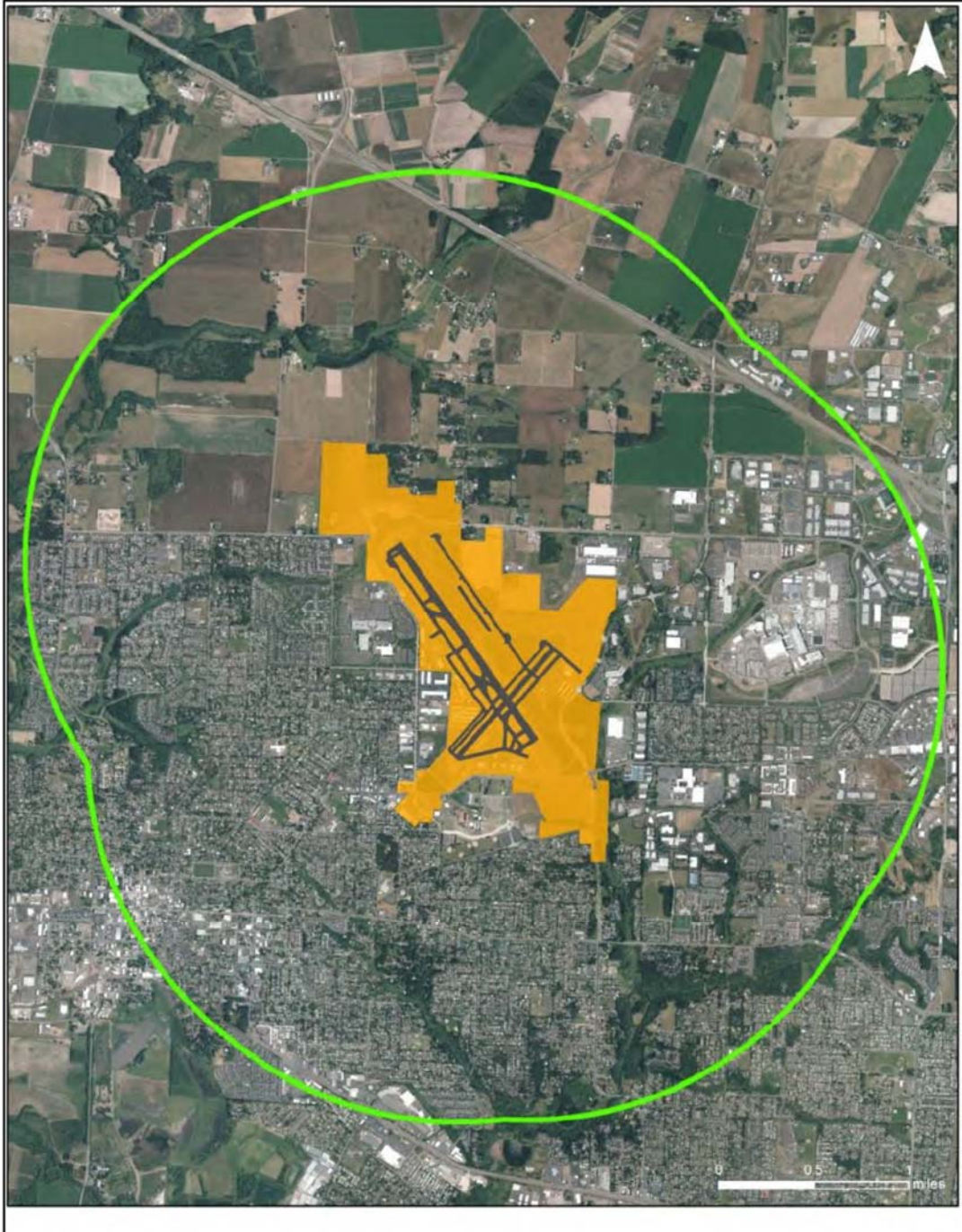
<b>Ref: 1</b>	<b>Risk: HIGH</b>	<b>Site:</b>	<b>Anyname Mere</b>	
<b>Description</b>	<b>Mere with island</b>			
<b>Os grid ref (Optional)</b>	<b>SJ766785</b>	<b>Co-ordinates</b>		<b>376750</b>   <b>378434</b>
<b>Distance from airport</b>	<b>2.8 miles</b>	<b>Bearing in degrees</b>		<b>219.00</b>
<b>Contact</b>	<b>Could be Local Council</b>		<b>Telephone</b>	
<b>Month visited/date</b>		<b>Time</b>		
<b>Site description</b>				
<b>Area/size of water body</b>	<b>Approx</b>			
<b>Adjacent terrestrial habitat</b>				
<b>Photograph</b>				
<b>Aerial photograph</b>				
<b>Usage</b>	<b>There appears to be public access around most of the mere's perimeter. There is evidence of dog walking and recreational use by family and children for picnics etc that could be a bird attractant.</b>			
<b>Management</b>				
<b>Species name</b>	<b>Population count</b>	<b>Acitivity</b>		
<b>Canada Geese</b>	<b>200</b>	<b>feeding</b>		
<b>Moorhen</b>	<b>1</b>	<b>present</b>		
<b>Lapwings</b>	<b>300+</b>	<b>present</b>		
<b>Mallard</b>	<b>30</b>	<b>feeding/ roosting</b>		
<b>Coot</b>	<b>6</b>	<b>territorial disputes</b>		
<b>Swans</b>	<b>2</b>	<b>feeding</b>		
<b>Black Headed Gulls</b>	<b>40</b>	<b>present</b>		

**EXAMPLES of what a site plan might look like:**









**Insert Maps / Bird Circle Map**

**Plot the sites identified on to the Bird Circle map**

## **Wildlife Hazard Management Plan**

### **Chapter 7**

#### **Aerodrome Ornithology**

Wildlife/Bird control personnel are able to identify correctly and be familiar with the behavior of all birds species commonly encountered on the airfield and identified with in this WHMP. This information can be found in the WHMP file (wildlife/bird description and possibly a photograph).

Add photographs of most common species with a description and some information in regards to behavior and seasonal activity.

- END -