

# Avian Hazards at JAX



**The usual suspects...**



# Avian Hazards at JAX

...and a few more



# Step 1: System States

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- Movement Areas
- Within the AOA
- Airport Property outside the AOA
- Off-Airport Property

## Step 2: Hazards

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- Geese
- Hogs
- Aerial Foragers
- Blackbirds
- Cattle Egrets
- Crows
- Coyotes
- Deer
- Dogs
- Doves
- Turkeys
- Gulls
- Mesomammals
- Songbirds
- Wading Birds
- Raptors
- Shorebirds
- Vultures

# Example: Canada Geese

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- Step 1: Identify System States
  - AOA
  - Airport property outside AOA
  - Off-airport property
- Step 2: Identify Hazards
  - Canada goose/geese struck by aircraft



# Step 3: Identify your controls

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- Engineering
  - Habitat reduction (no standing water)
  - Aquatic vegetation removal
  - Pyrotechnics/lethal control
- Warnings
  - Bird activity on ATIS
  - NOTAMS
- Administrative Procedures/Training
  - Daily wildlife inspections & reports
  - Annual wildlife hazard management training
  - Zoning recommendations for adjacent properties



# Step 4: Determine Risk Factors

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- Using JAA's Risk Matrix:
  - Residual Severity – Catastrophic (1)
  - Residual Likelihood – Extremely Remote (D)
  - **Residual Risk Total – 1D**



# Step 5: Corrective Action and Implementation

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- Within AOA: Eliminate/reduce open water sources within the AOA (Planning Dept & OPS)
- Airport property outside AOA: Eliminate/reduce open water sources/nesting habitat (Planning Dept. & OPS)
- Off-airport property: Public outreach & education; attend zoning meetings (Planning Dept.)



# Step 6: Risk Management and Risk Reduction

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- Critical Control: Revised WHMP approved July 2011.  
Eliminating/reducing all standing water from AOA is a goal of WHMP
- Critical Control Owner: Planning Environmental Coordinator
- Hierarchy/Defense in Depth Met?  
Yes



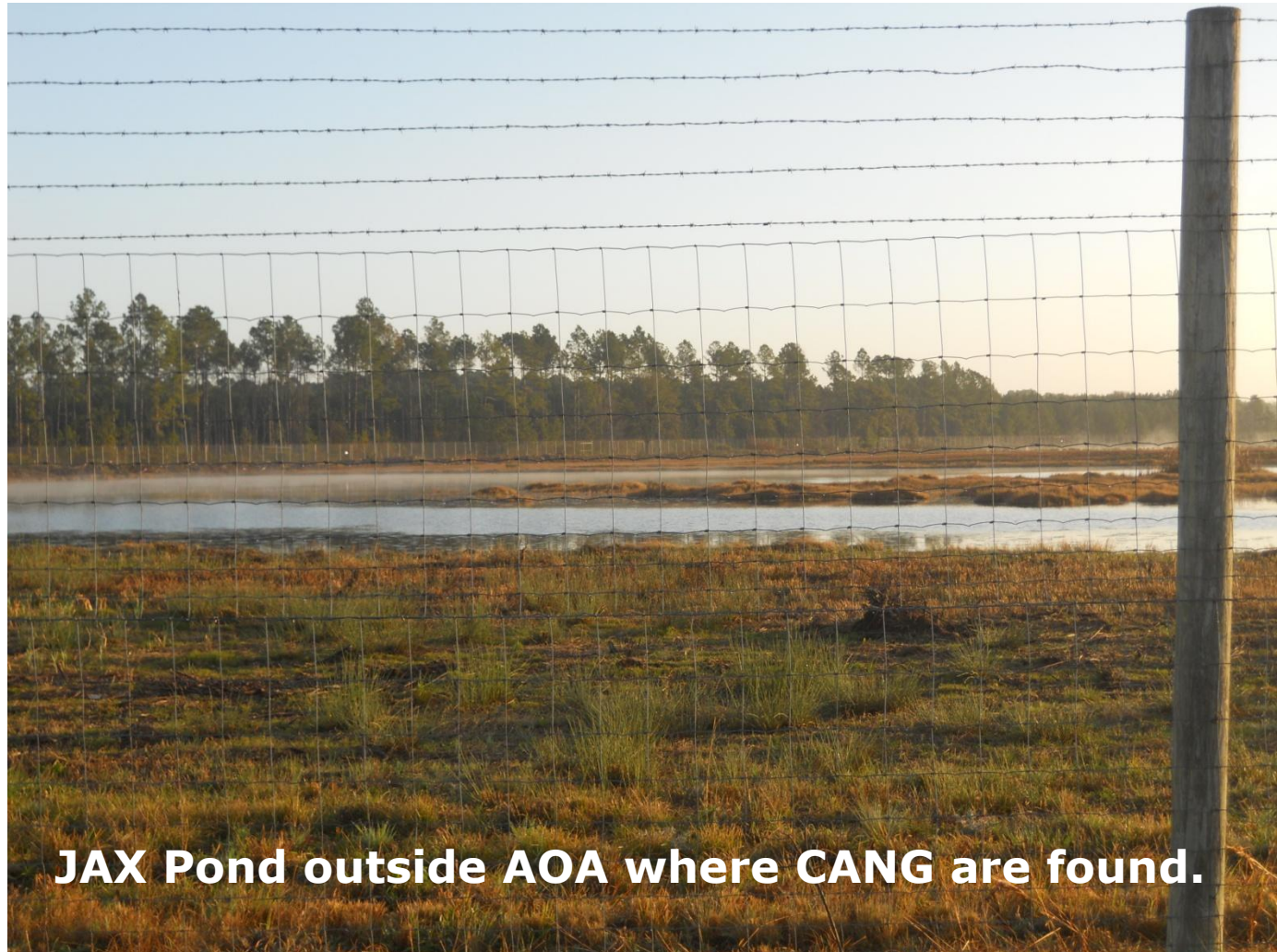


# Final Product

ID	Department	System Data/ Track/Activities	Hazard (What could go wrong)	Cause	Effect / Severity / Outcome (over time)	Controls			Description of Controls	Residual Severity	Residual Likelihood	Residual Risk Total	Corrective Actions	Compliance Action (CA) (By Department)	Critical Control (Y/N) (If Yes, Name and Justification, or if Residual Risk is High)	Residual Risk (If Yes, Name and Justification, or if Residual Risk is High)	Critical Control (Y/N) (If Yes, Name and Justification, or if Residual Risk is High)	Residual Risk (If Yes, Name and Justification, or if Residual Risk is High)	Control Category based on Control Action	Residual Risk (If Yes, Name and Justification, or if Residual Risk is High)	Risk Reduction Target
						Elimination/Reduction	Control: Engineering	Control: Management													
14	Operations, Planning, Wildlife Consultants, Facilities	AOA	Doves/Pigeons	feeding opportunities (building structures, low ground, available grain, short grass)	aircraft damage, damage reputation, operations interruption	X		X	chasing	Major	3	30	Remove all nesting materials from perimeter fence, mow perimeter grass height of 6-12 inches, eliminate bare areas and loose gravel	Facilities			Currently the wildlife plan is under revision. Mitigation strategy will be based on BIAA. Target date is 9/2021.		Flawing Environmental Coordinator	Flawing outcome of VMA	
15	Operations, Planning, JAAPO, Wildlife Consultants, Facilities	AOA	Turkeys	disturbance in perimeter fence, wooded areas inside perimeter fence	mass casualties, aircraft damage, damage reputation, operations interruption	X		X	chasing, pyrotechnics, shooting	Hazardous	3	30	Use gas fence and gates use sensors (no brackets or GPS), eliminate all wooded areas including the perimeter fence	Facilities/Planning/Ops	Y		Ops assesses habitat daily (Sr. Manager Operations). Work order system used to coordinate repair and track daily until completion under 139 category (Director of Facilities)		Flawing Environmental Coordinator	Flawing outcome of VMA	Y
16	Operations, Planning, JAAPO, Wildlife Consultants, Facilities	AOA	Gulls	low areas of standing water, open areas for nesting	mass casualties, aircraft damage, damage reputation, operations interruption	X	X	X	chasing, shooting, pyrotechnics	Hazardous	3	30	obtain permits to fill areas that collect water during heavy rain	Planning	Y		Currently the wildlife plan is under revision. Mitigation strategy will be based on BIAA. Target date is 9/2021.		Flawing Environmental Coordinator	Flawing outcome of VMA	Y
17	Operations, Planning, JAAPO, Wildlife Consultants, Facilities	AOA	Miscellaneous: raccoons, skunks, armadillos, feral cats, fox, opossums	brushed in perimeter fence, available water features, human waste, small mammals, cat food, insects, debris, vegetation/invasives inside the perimeter fence	aircraft damage, damage reputation, operations interruption	X		X	chasing, shooting, pyrotechnics, trapping, restraining	Major	3	30	eliminate fence breaches, bury perimeter fence, keep all trash contained, keep doors closed on all facilities, remove wooded areas from inside the perimeter fence	Facilities/Planning/Ops	Y		Ops assesses habitat daily (Sr. Manager Operations). Work order system used to coordinate repair and track daily until completion under 139 category (Director of Facilities)		Sr. Manager of Operations, Environmental Planning Coordinator, Director of Facilities	Flawing outcome of VMA	Y
18	Operations, Planning, Wildlife Consultants, Facilities	AOA	small, perching songbirds: robins, meadowlarks, mockingbirds, sparrows, etc.	perching & nesting opportunities, nearby vegetation that produces seeds, fruits, nuts, & berries; short grass	aircraft damage, damage reputation, operations interruption	X		X	vegetation maintenance, pyrotechnics	Major	3	30	remove unnecessary perching structures from airfield, install perching deterrents on unexcitable structures (e.g. runway signs, etc), remove all food nests, nesting materials, & eggs, keep facilities secured; maintain an 8-inch tall grass height of 6-12 inches, maintain a dense monoculture of grass; remove all weeds vegetation that produces seeds, nuts, berries, and fruits	Facilities/Planning/Ops/JAA PO	Y		Ops assesses habitat daily (Sr. Manager Operations). Work order system used to coordinate repair and track daily until completion under 139 category (Director of Facilities)		Sr. Manager of Operations, Environmental Planning Coordinator, Director of Facilities	Flawing outcome of VMA	Y
19	Operations, JAAPO, Wildlife Consultants, Facilities	AOA	Wading birds: Egrets, herons, ibis, terns	standing water, vegetation surrounding standing water, wetlands	mass casualties, aircraft damage, damage reputation, operations interruption	X		X	pyrotechnics, occasional wetland vegetation removal	Hazardous	3	30	regularly remove all wetland vegetation from in & around standing water; apply herbicide to assist vegetation growth; eliminate areas of standing water; apply non-lethal chemicals to water that will help obtain permit to fill wetlands; use occasional lethal control to reinforce pyrotechnics	Facilities/Planning/JAA PO	Y		Currently the wildlife plan is under revision. Mitigation strategy will be based on BIAA. Target date is 9/2021.		Flawing Environmental Coordinator	Flawing outcome of VMA	Y
20	Operations, JAAPO, Wildlife Consultants, Facilities	AOA	Birds: eagles, hawks, & kestrels	small mammals, perching & nesting opportunities	mass casualties, aircraft damage, damage reputation, operations interruption	X		X	pyrotechnics	Hazardous	3	30	keep perimeter fence line of vegetation, eliminate woodlands inside perimeter fence, install perching deterrents on unexcitable structures, remove unnecessary perching structures, remove all food & berries inside perimeter fence	Facilities	Y		Currently the wildlife plan is under revision. Mitigation strategy will be based on BIAA. Target date is 9/2021.		Flawing Environmental Coordinator	Flawing outcome of VMA	Y
21	Operations, JAAPO, Planning, Wildlife Consultants, Facilities	JAA property outside AOA	Birds: eagles, hawks, & kestrels	small mammals, perching & nesting opportunities	mass casualties, aircraft damage, damage reputation, operations interruption	X		X	Vegetation management	Hazardous	2	20	install perching deterrents on unexcitable structures, remove all traps (and baits) from wooded areas, remove food and water nests (except Bird Eats), remove unnecessary perching structures, remove all food & berries	Facilities			Ops assesses habitat daily (Sr. Manager Operations). Work order system used to coordinate repair and track daily until completion under 139 category (Director of Facilities)		Sr. Manager of Operations, Environmental Planning Coordinator, Director of Facilities	Flawing outcome of VMA	
22	Operations, Planning, Wildlife Consultants, Facilities	AOA	Shorebirds: plovers & Bitter	areas of bare ground, low areas of standing water, nesting opportunities	aircraft damage, damage reputation, operations interruption	X		X	chasing, pyrotechnics	Minor	4	20	Eliminate bare areas on AOA, remove any found nests, obtain permits to fill low areas that collect standing water during heavy rain events	Facilities/Planning			Ops assesses habitat daily (Sr. Manager Operations). Work order system used to coordinate repair and track daily until completion under 139 category (Director of Facilities)		Sr. Manager of Operations, Environmental Planning Coordinator, Director of Facilities	Flawing outcome of VMA	
23	Operations, JAAPO, Planning, Wildlife Consultants, Facilities	AOA	Wolves, canids	Wolves, canids	mass casualties, aircraft damage, damage reputation, operations interruption	X	X	X	pyrotechnics	Catastrophic	1	10	reinforce pyrotechnics with lethal control; hang a dead wolf or dog upside down from a high pole on the AOA, remove and bury all carion immediately	Facilities/JAA PO/Ops	Y		Currently the wildlife plan is under revision. Mitigation strategy will be based on BIAA. Target date is 9/2021.		Flawing Environmental Coordinator	Flawing outcome of VMA	Y
24	Operations, JAAPO, Planning, Wildlife Consultants, Facilities	JAA property outside AOA	Wolves, canids	Wolves, canids	mass casualties, aircraft damage, damage reputation, operations interruption	X	X	X	Vegetation management	Hazardous	2	20	reinforce pyrotechnics with lethal control; remove and bury all carion immediately	Facilities/JAA PO/Ops			Currently the wildlife plan is under revision. Mitigation strategy will be based on BIAA. Target date is 9/2021.		Flawing Environmental Coordinator	Flawing outcome of VMA	

# Questions?

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**JAX Pond outside AOA where CANG are found.**