Alberta Wetland Policy: From Development Through Implementation

Water Policy Branch
Environment and Parks

May 3, 2016

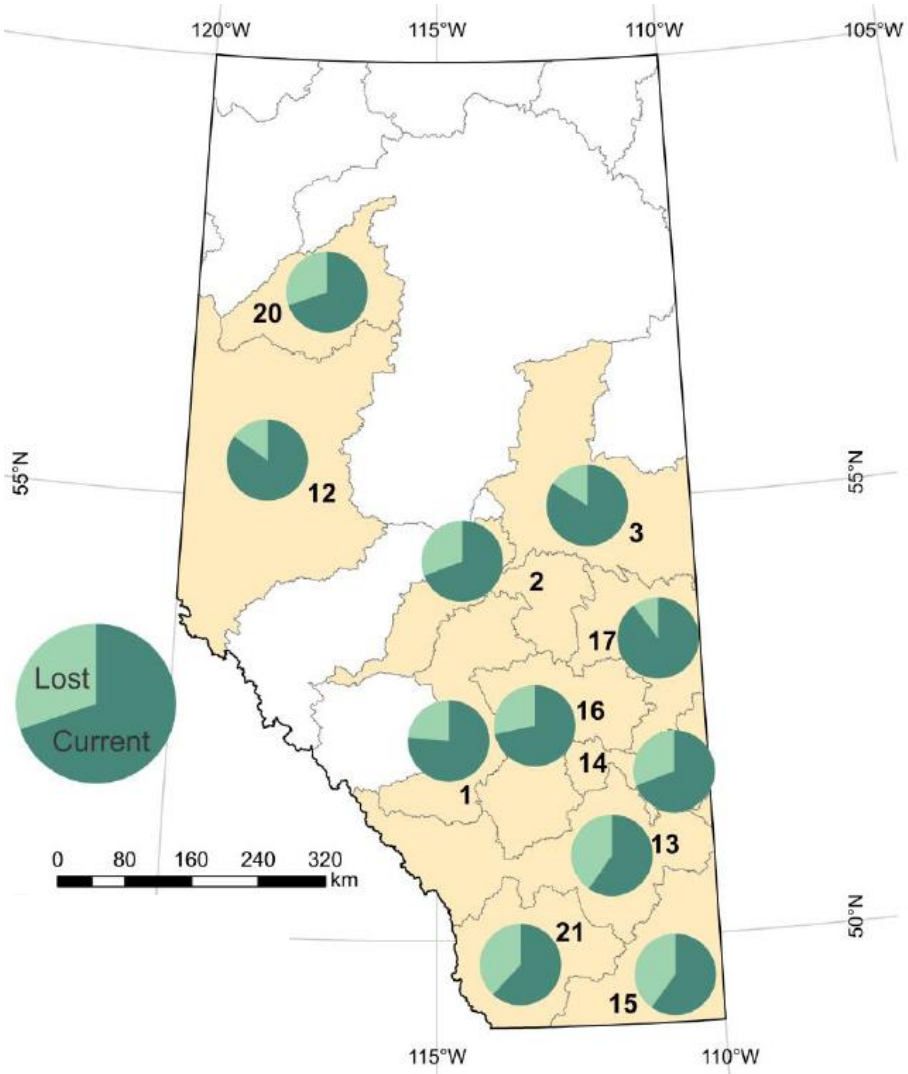
Outline

- **Policy Context**
  - **Legislation**
  - **Wetland Loss**
  - **Alberta Wetland Policy**
    - Concepts
    - Regulatory Context
    - Tools
- **Status of Policy Implementation**
  - **White (Settled) Area**
  - **Green Area (Crown Lands)**
  - **Key Learnings, Next Steps, Partnerships**

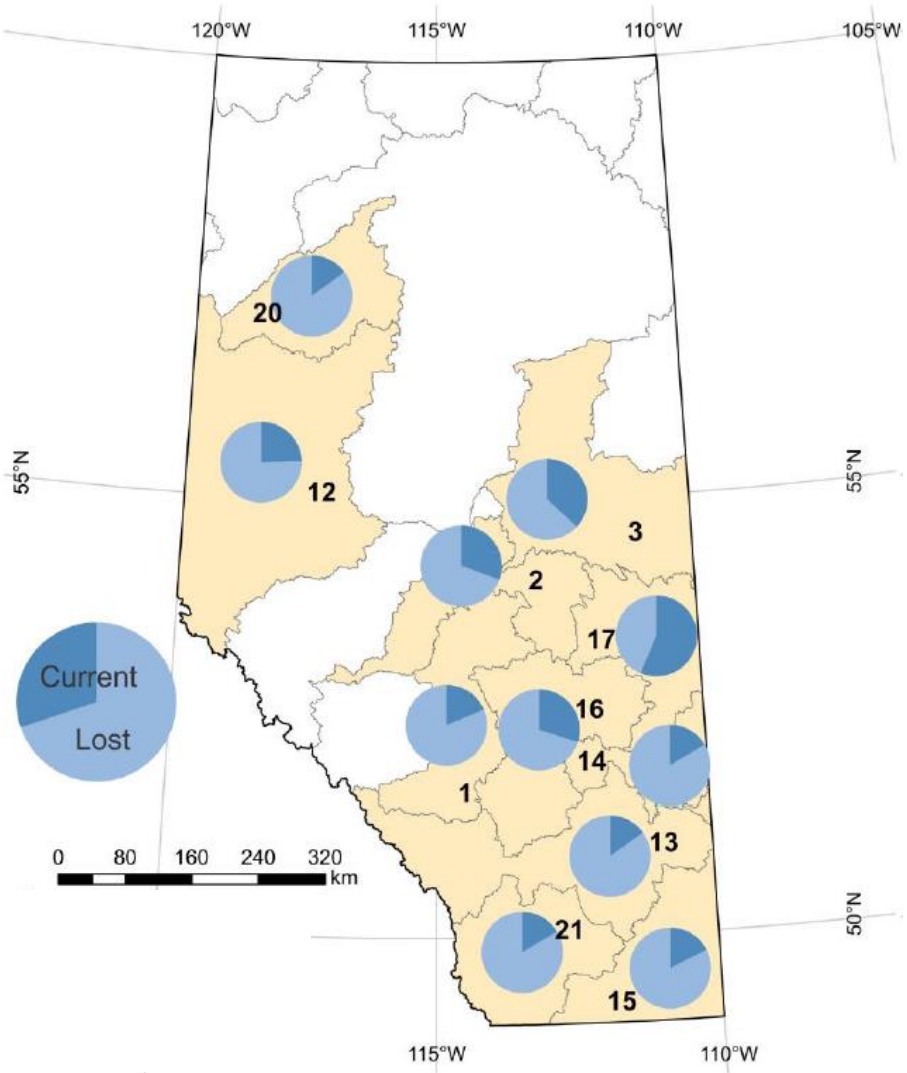
Legislative Context

- **Water Act:**
  - **Under the provincial Water Act, the property in and right to diversion and use of all water is vested in the Province.**
  - **Enabling legislation for the Alberta Wetland Policy, not affected or altered by the Policy.**
- **Public Lands Act:**
  - **Title to the beds and shores of:**
    a. all permanent and naturally occurring bodies of water, and;
    b. all naturally occurring rivers, streams, watercourses and lakes, is vested in the Crown in right of Alberta.

Wetland Area Lost



Wetland Number Lost



Wetland Policy Overview

Policy Goal:

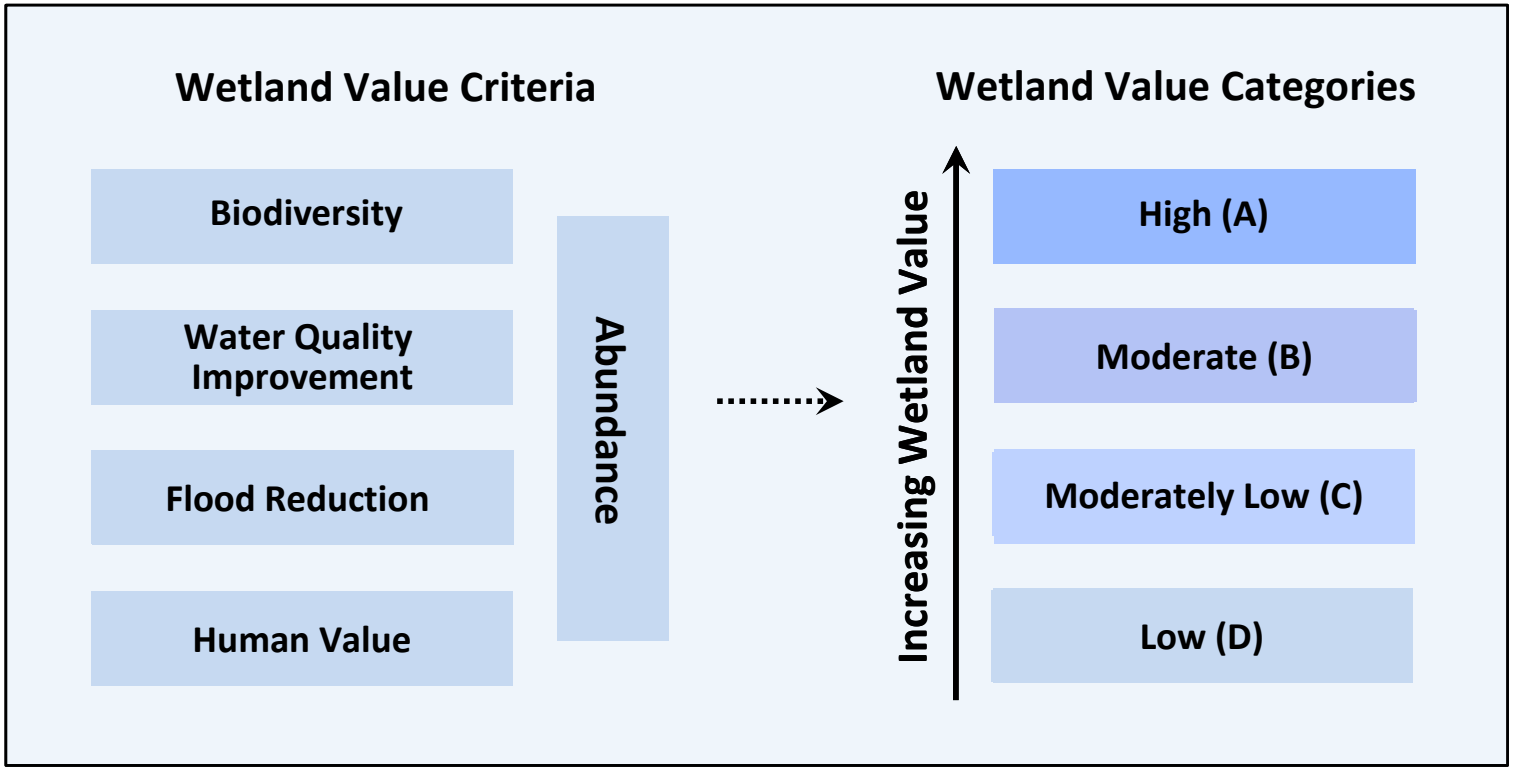
- To conserve, restore, protect, and manage Alberta's wetlands to sustain the benefits they provide to the environment, society, and the economy.

Policy Outcomes:

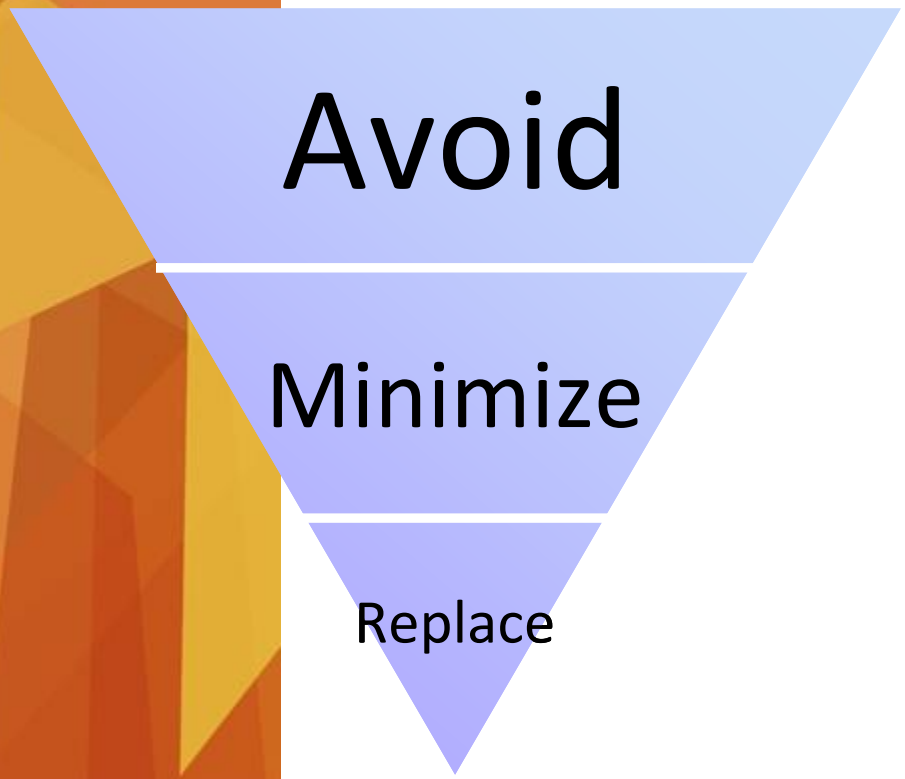
1. Wetlands of the highest value are protected for the long-term benefit of all Albertans.
2. Wetlands and their benefits are conserved and restored in areas where losses have been high.
3. Wetlands are managed by avoiding and minimizing negative impacts, and, where necessary, replacing lost wetland value.
4. Wetland management considers regional context.

Relative Wetland Value

Wetlands are highly diverse in form, function, use, and distribution across the province – they are not all of equal value.



Wetland Mitigation Hierarchy



Avoidance

The preferred response is to avoid impacts on wetlands.

Minimization

Where avoidance is not possible, proponents will be expected to minimize impacts on wetlands.

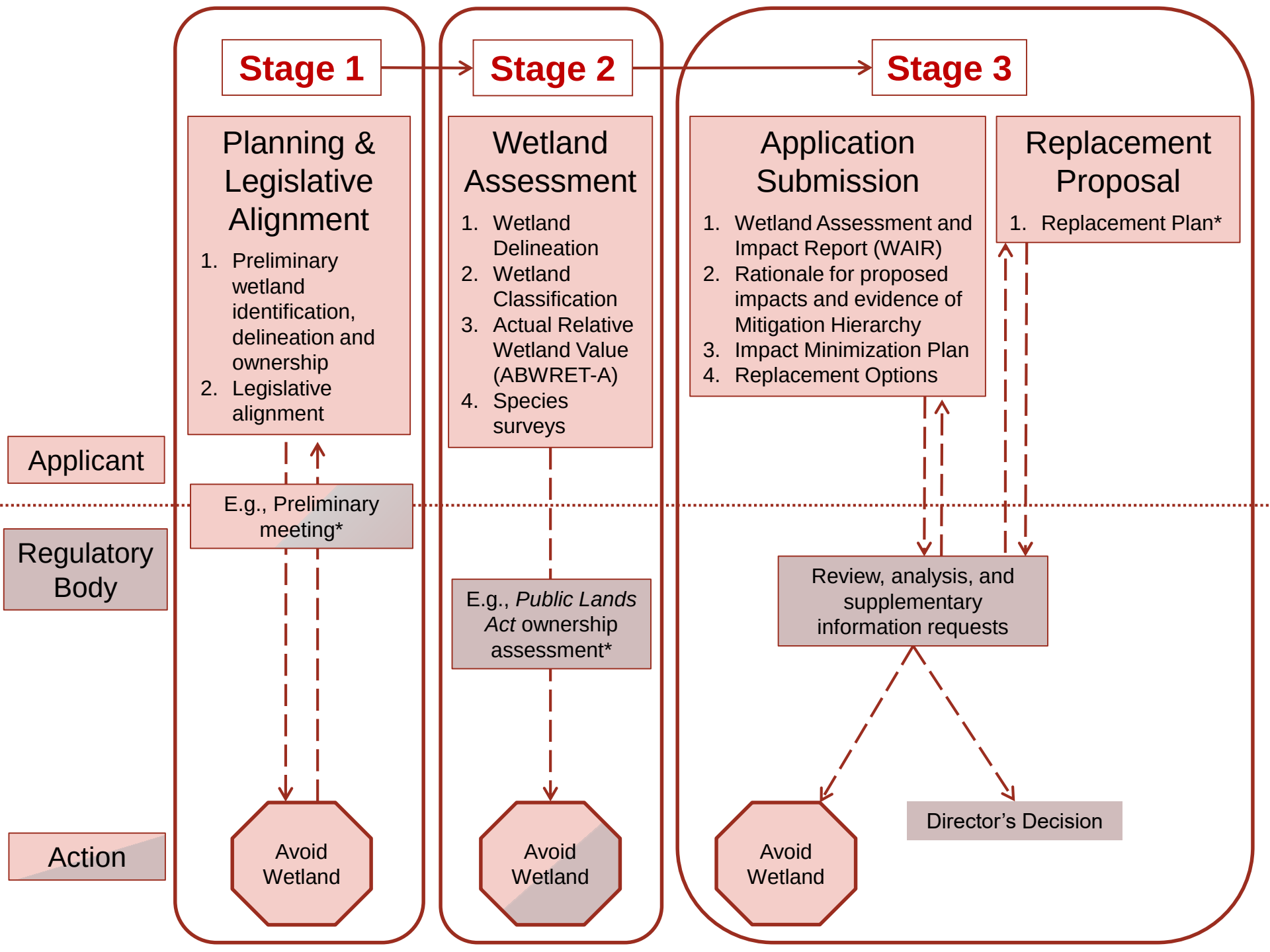
Replacement

As a last resort, and where avoidance and minimization efforts are not feasible or prove ineffective, wetland replacement will be required.

Wetland Replacement

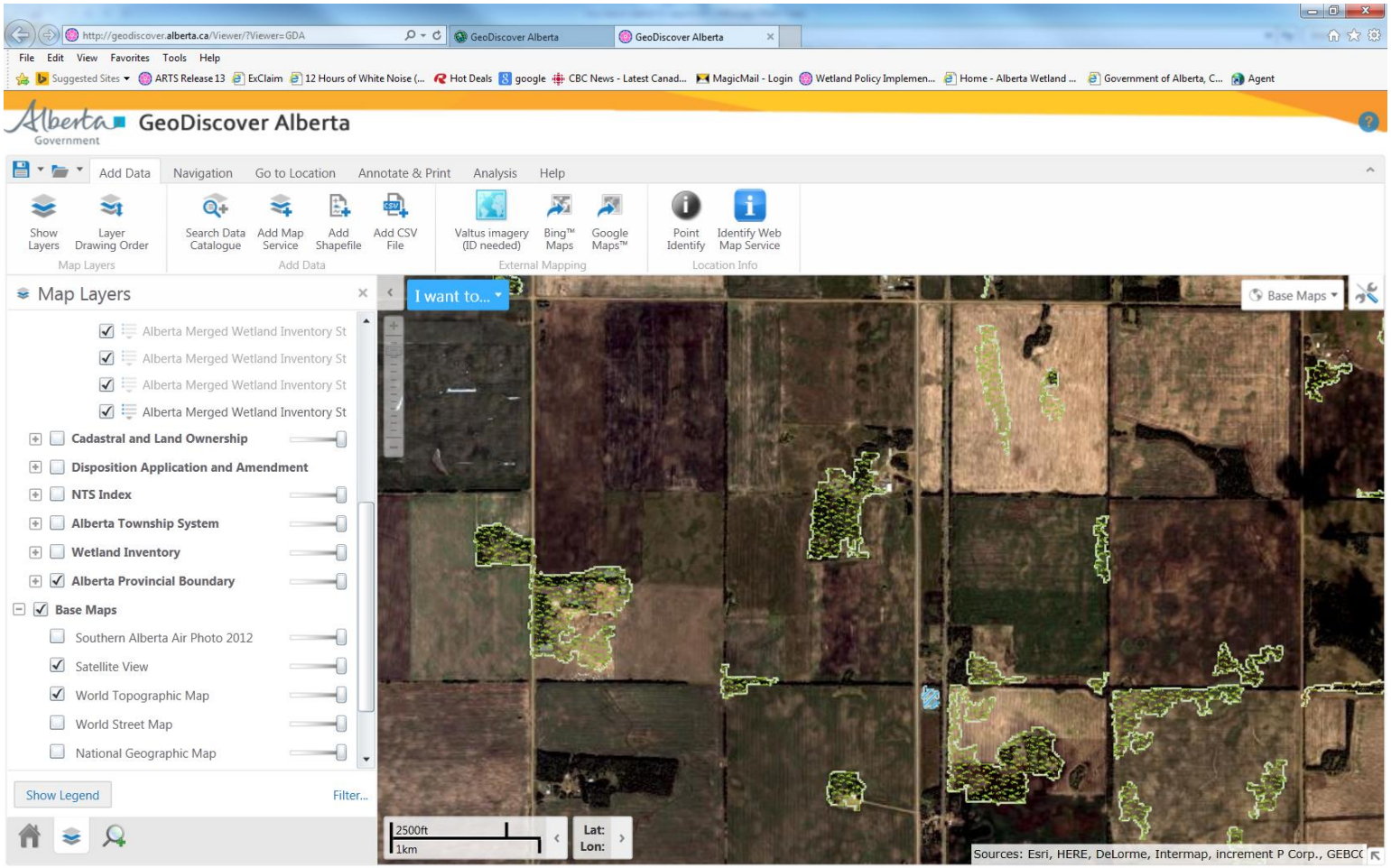
Value of Lost Wetland	Value of Replacement Wetland: D	C	B	A
A	8:1	4:1	2:1	1:1
B	4:1	2:1	1:1	0.5:1
C	2:1	1:1	0.5:1	0.25:1
D	1:1	0.5:1	0.25:1	0.125:1

*Ratios are expressed as hectares of wetland


Stage 1
Stage 2
Stage 3
Planning & Legislative Alignment
1. Preliminary wetland identification, delineation and ownership
2. Legislative alignment
Wetland Assessment
1. Wetland Delineation
2. Wetland Classification
3. Actual Relative Wetland Value (ABWRET-A)
4. Species surveys
Application Submission
1. Wetland Assessment and Impact Report (WAIR)
2. Rationale for proposed impacts and evidence of Mitigation Hierarchy
3. Impact Minimization Plan
4. Replacement Options
Replacement Proposal
1. Replacement Plan*
Applicant
Regulatory Body
Action
E.g., Preliminary meeting*
E.g., Public Lands Act ownership assessment*
Review, analysis, and supplementary information requests
Director's Decision
Avoid Wetland
Avoid Wetland
Avoid Wetland

Provincial Wetland Inventory

- **A Planning Tool:**

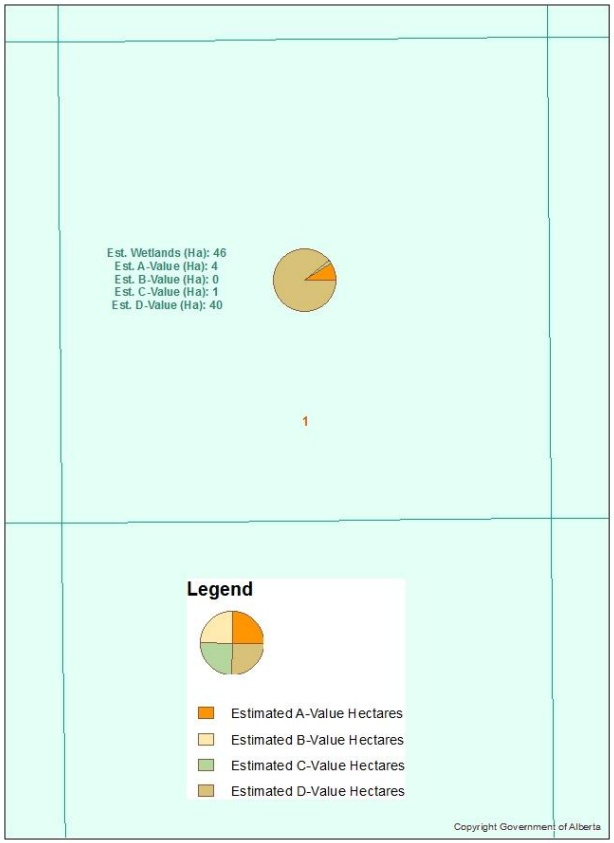


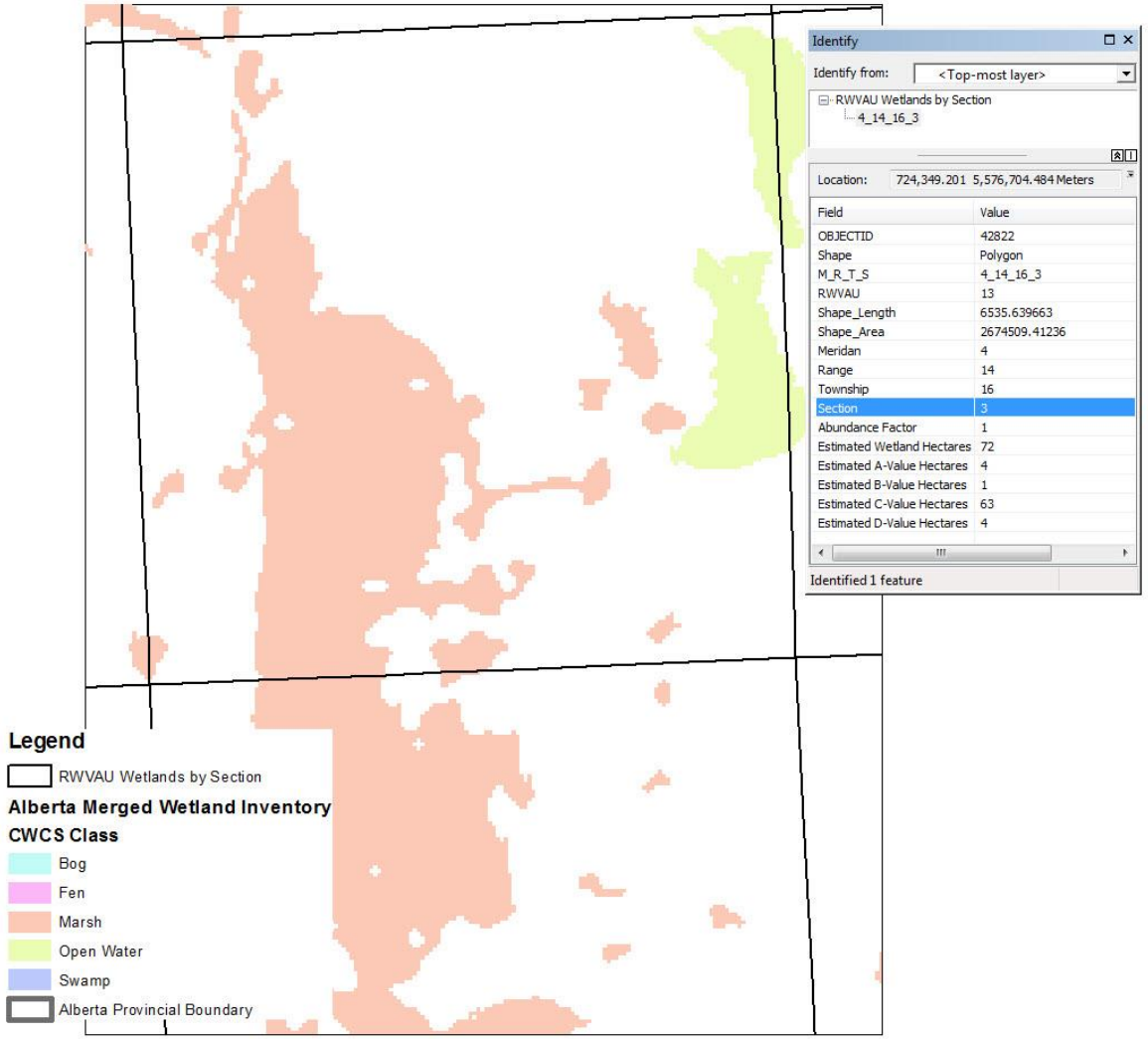
Wetland Classification

- **Alberta Wetland Classification System**
  - **Aligned with other existing systems**
- **Common tool for all regulatory processes**

CLASS	FORM	TYPE and sub-type
Bog (B)	Wooded (coniferous [Wc]) Shrubby [S]	freshwater (f), acidic pH <4.5 [a]
Fen (F)	Wooded (coniferous [Wc]) Shrubby [S] Graminoid [G]	freshwater (f), pH <5.5 (poor fen [p])
		freshwater (f), pH >5.5 to 7.0 (moderately-rich fen [mr])
		slightly brackish (sb), pH >7.0 (extremely-rich fen [er])
Marsh (M) [5]	Graminoid [G]	Temporary (II); freshwater (f), slightly brackish (sb)
		Seasonal (III); freshwater (f), slightly brackish (sb), moderately brackish (mb)
		Semi-permanent (IV) ; freshwater (f), slightly brackish (sb), moderately brackish (mb), brackish (b)
Shallow Open Water (W) [5]	Submersed or Floating [F]	Permanent (V); freshwater (f), slightly brackish (sb), moderately brackish (mb), brackish (b), subsaline (ss)
		Intermittent Saline (VI); saline (s)
Swamp (S)	Wooded (coniferous [Wc])[6] Wooded (mixedwood [Wm])[6] Wooded (deciduous [Wd])[6] Shrubby [S][6]	Temporary (II); freshwater (f) to slightly brackish (sb)
		Seasonal (III); freshwater (f) to slightly brackish (sb)
		Seasonal (III); moderately brackish (mb)

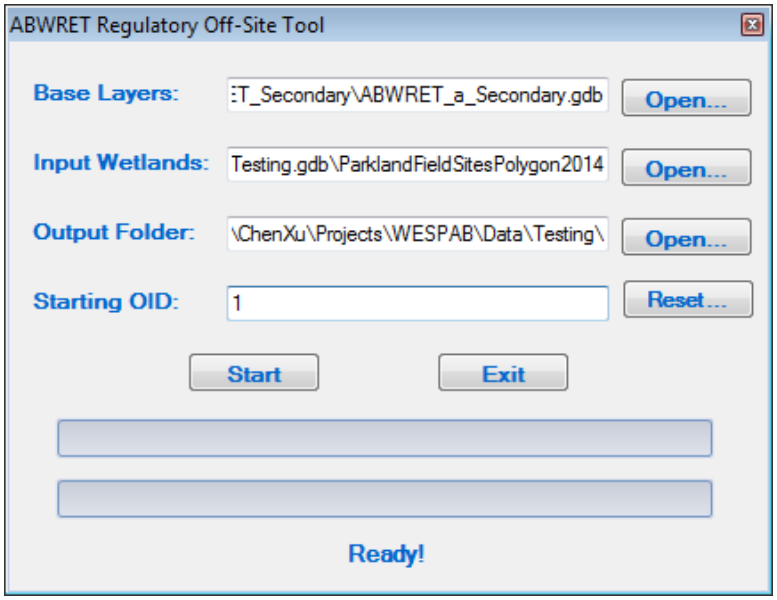
Relative Wetland Value Estimator





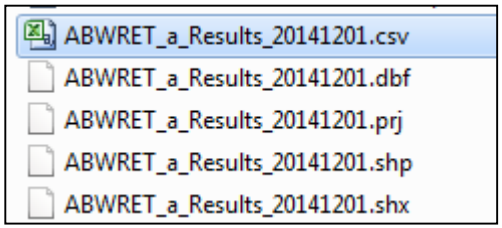
Wetland Assessment

- **The Alberta Wetland Rapid Evaluation Tool (ABWRET)**
  - **76 Indicators, results in csv and shapefile.**



GUI Interface

Output



FID	Shape	Name	OF1	OF2	OF3	OF4	OF5	OF6	OF7	OF8	OF9	OF10	OF11	OF1	OF13	OF14	OF15	OF16	OF17
0	Polygon	18	.0	0	0	0.02	0.01	1	4.51	0	0	0	> 5000	0	NULL	47.096	0	55.165	54.41
1	Polygon	29	4.0	0	0	15.3	13.0	0	15.3	0	0	0	> 5000	0	NULL	81.567	0	100	84.65
2	Polygon	33	.0	0	0	0.30	0.11	1	0.30	0	0	> 5000	> 5000	0	NULL	61.869	0	47.091	46.78
3	Polygon	4	.0	-1	0	0.80	0.65	1	1.60	0	0	> 5000	> 5000	127	NULL	47.656	0	91.689	90.88
4	Polygon	8	.0	-1	0	1.07	0.96	1	2.15	0	0	> 5000	> 5000	138	NULL	47.305	0	92.712	91.63
5	Polygon	2	.0	0	0	0.19	0.21	1	1.68	0	0	> 5000	> 5000	0	NULL	38.211	0	93.410	92.98
6	Polygon	1	3.0	-1	0	6.89	1.94	0	13.7	0	0	0	> 5000	17.7	0.0538	54.772	0	20.689	13.79
7	Polygon	37	3.0	-1	0	10.4	10.4	0	52.0	0	0	1043.012	> 5000	69.4	0.0538	73.121	0	54.329	43.91
8	Polygon	121	3.0	1	0	5.26	0.70	1	105.	0	0	2832.043	> 5000	49.7	0.0538	62.034	0	73.684	21.05

Phase 1:
White Area Implementation

- **White (settled) Area Implementation on June 1, 2015.**
- **Wide range of science-based operational tools completed and active:**
  - **Wetland inventory and map of estimated relative wetland value**
  - **Actual relative wetland value tool (site-level assessment)**
  - **Key guidance (clarity, consistency, predictability in process):**
    - Alberta Wetland Classification System
    - Wetland Mitigation Directive
    - Wetland Identification and Delineation Directive
    - Wetland Assessment and Impact Report Directive
    - Wetland Administrative Procedures
    - Wetland Application Checklist

Phase 2:
Green Area Implementation

- **Planned for June 1, 2016**
- **Key items under development:**
  - **Expanded map of estimated relative wetland value**
  - **Updated assessment tool for actual relative wetland value (site-level assessment) of boreal and foothills wetlands**
  - **Revision of existing White Area tools and systems (directives and guidance documents) to reflect Green Area challenges:**
    - Wetland management on Crown Land
    - Peatland management, given operational challenges and extensive coverage
    - Increased role of broader legislative context (EPEA, Public Lands Act, *Water Act*, ALSA) in wetland management, particularly for large-scale, multi-year projects

Next Steps

- **Key items nearing completion:**
  - **Wetland Restoration Design Protocol (Offset System)**
  - **Competencies to define a practice standard for Qualified Wetland Science Practitioners in Alberta:**
    - Collaboration with Professional Regulatory Organisations in the province (the “PRO 10”)
    - Enables professional sign-off on regulatory applications and wetland replacement projects
- **Key items under development:**
  - **Provincial wetland replacement fund**
    - Centralised repository for collection and reallocation of wetland replacement monies
  - **Certification process for wetland replacement agents to act on behalf of the province (consultants, ENGO, industry, municipalities)**
  - **Wetland science agenda for the Province**

Key Learnings

- **Ongoing cultural hurdles:**
  - **Public perceptions of wetlands as wasteland and hindrance to development and progress persist**
  - **Continued promotion of ‘straight lines’ (tilling/seeding), ditching, and tile drainage in the agricultural sector**
  - **Incomplete understanding of regulatory accountabilities under the provincial *Water Act*:**
- **Ongoing importance of partnerships and collaboration toward achievement of policy outcomes:**
  - **Prioritization and achievement of wetland conservation/protection and restoration objectives best realized through communication and collaboration with partners…**

Partnerships

- **Land use planners and land managers critical to broader policy success:**
  - **Municipalities**
  - **Watershed Planning and Advisory Councils**
  - **Watershed Stewardship Groups**
  - **Regional and sub-regional planners (AEP)**
- **Wetland assessment tools designed to support risk management and land use planning:**
  - **Functional prioritization:**
    - Flood/drought mitigation
    - Groundwater recharge/discharge
    - Biodiversity/species at risk
    - Water quality issues
  - **Informs conservation/protection priorities, and supports identification of wetland restoration opportunities/needs**

Partnerships

- **Local and regional land planners and managers best situated to apply existing knowledge and tools in enabling achievement of desired wetland outcomes:**
  - **Municipal Government Act and Bylaws**
  - **Municipal Development Plans**
  - **Alberta Land Stewardship Act**
- **AEP has initiated discussions with various partners to explore avenues of communication and collaboration:**
  - **E.g., Municipalities, WPACs, North American Waterfowl Management Plan, AUMA, AAMDC**
  - **Inventories of wetland restoration opportunities and needs**
  - **Inventories of conserved/protected wetlands**
- ***Communication* across regulators and regulatory processes**


Alberta
Thank You!