

Presentation to the
Bragg Creek Chamber of Commerce



CORVUSCENTRE
for Conservation Policy

Planning for Bragg Creek's Natural Assets

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corvus.ca

OUTLINE

OUTLINE

Planning

- Municipal Development Plan
- Area Structure Plan
- Calgary Metro Region Growth Plan
- Greater Bragg Creek ASP

Nature

- Assets / Functions / Services
- Natural Asset Inventories
- Valuation

Protection

- Conservation in the 21st century
- Identification vs protection
- Tools and approaches

Planning

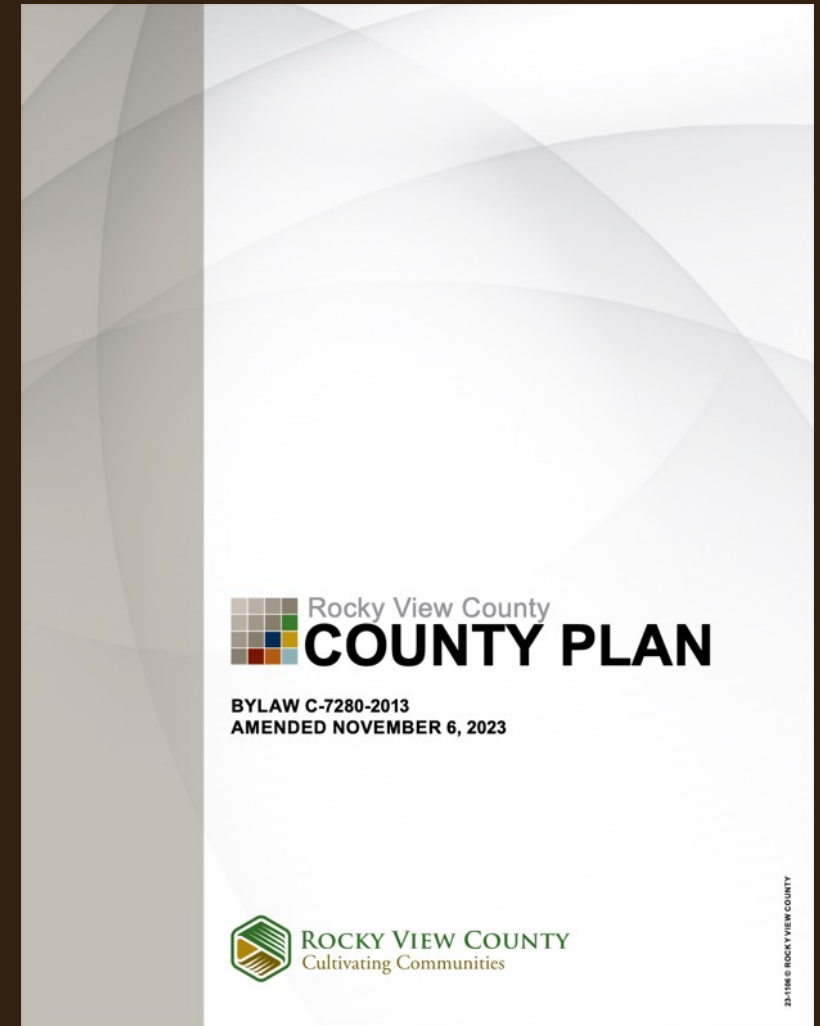
A scenic landscape featuring a dense forest of evergreen trees in the foreground and middle ground. In the background, there are blue-toned mountains under a sky with scattered white clouds. A large, dark, semi-transparent triangular shape is overlaid on the left side of the image, partially obscuring the forest and mountains. The word "Planning" is written in white, bold, sans-serif font on the dark triangular area.

MUNICIPAL PLANS

MUNICIPAL PLANS

Municipal Development plan (MDP)

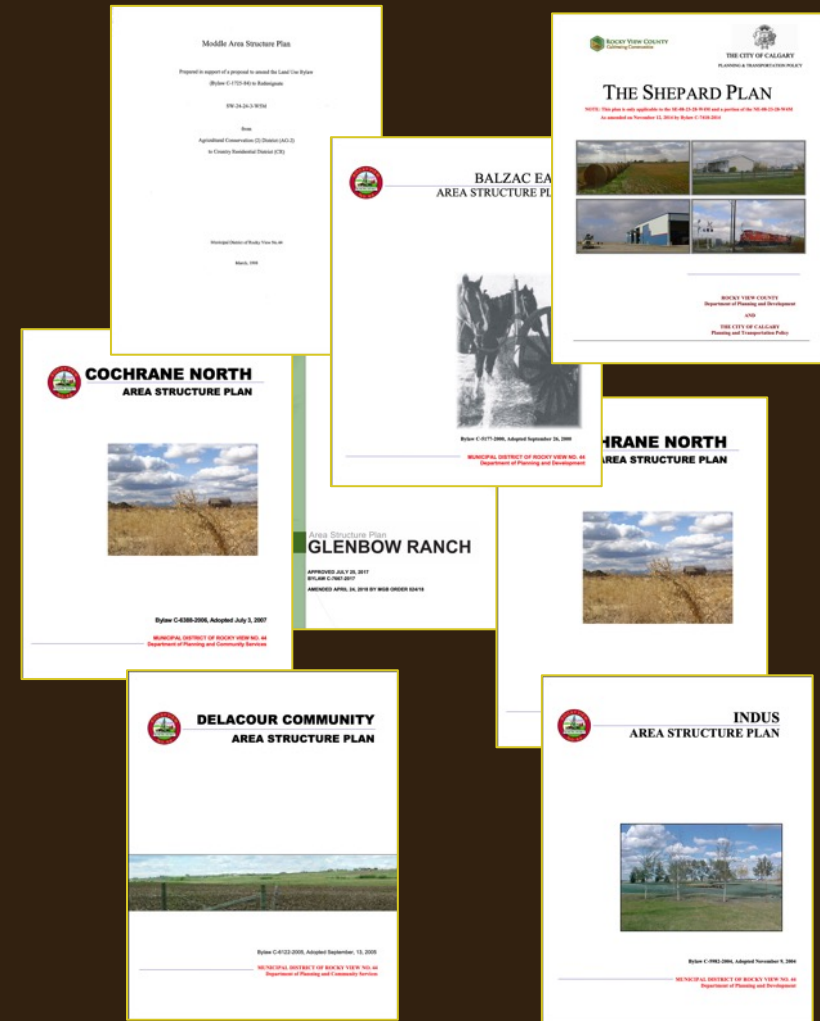
- Statutory plan
- Everything we want to do in the municipality
 - 'May', 'shall consider'
- But we can't do it all
 - Not enough time, money, space
- Enabling clauses
 - Everything must connect to it



MUNICIPAL PLANS

Area Structure Plan (ASP)

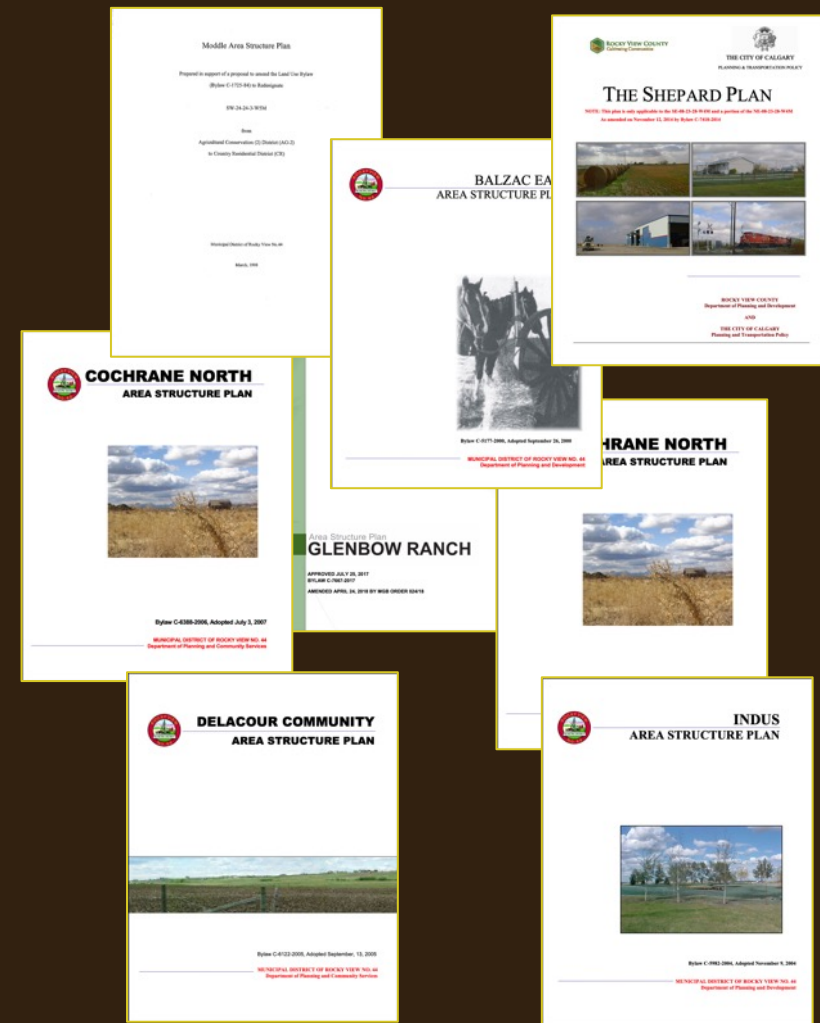
- Statutory plan
- Subsequent subdivision and development
 - “Sequence of development, proposed land uses, density of development and general location of major transportation routes and public utilities”



MUNICIPAL PLANS

Area Structure Plan (ASP)

- The 'where' and some of the 'how'
- Enables the next level down
 - Conceptual Scheme, Outline Plan, Lot Plan



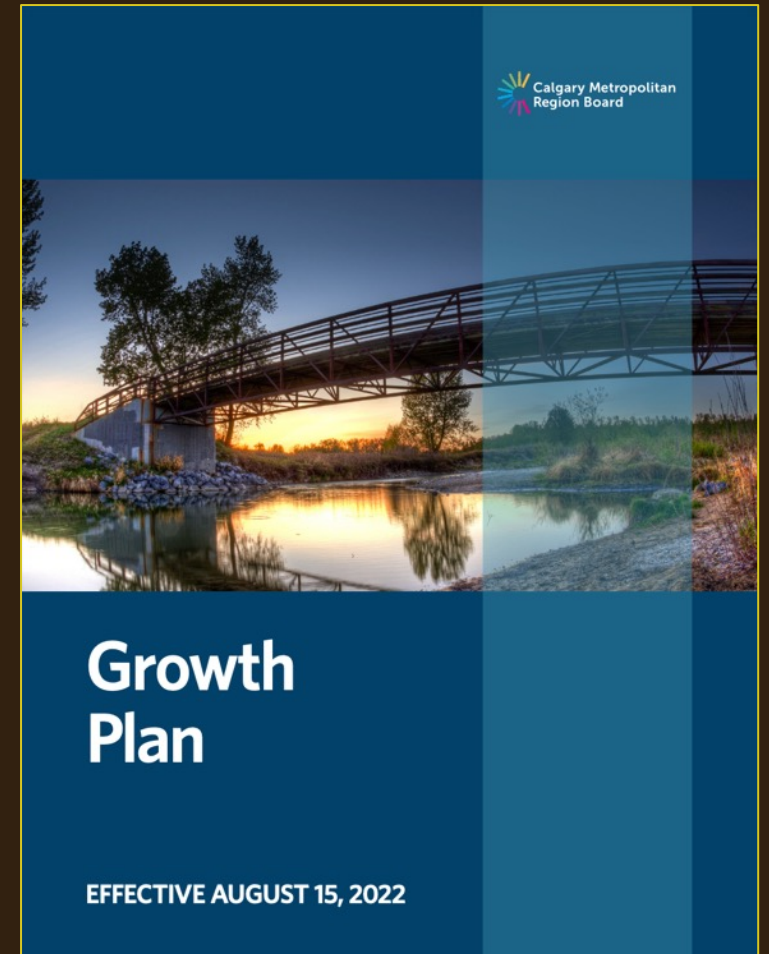
REGIONAL PLANS



REGIONAL PLANS

Calgary Metro Region Board (CMRB) Growth Plan

- 'One ring to rule them all'
- For the whole region
- Identifies growth areas
 - This includes the Hamlet of Bragg Creek
- MDPs and ASPs must be approved by the CMRB

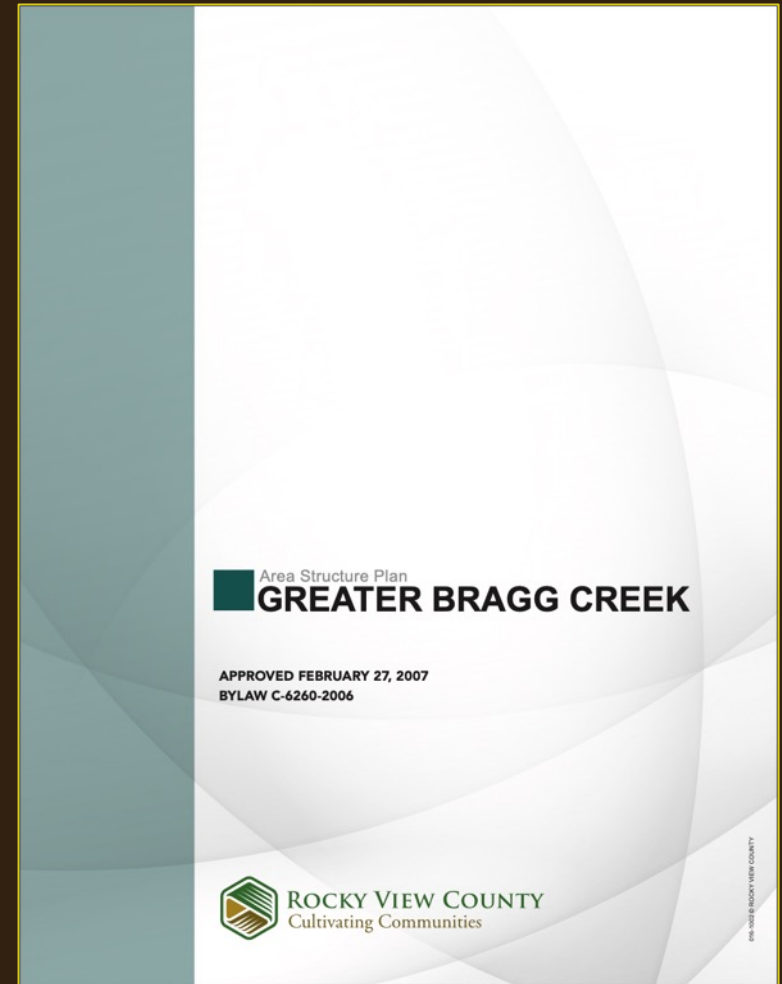


BRAGG CREEK'S PLAN

BRAGG CREEK'S PLAN

Greater Bragg Creek ASP

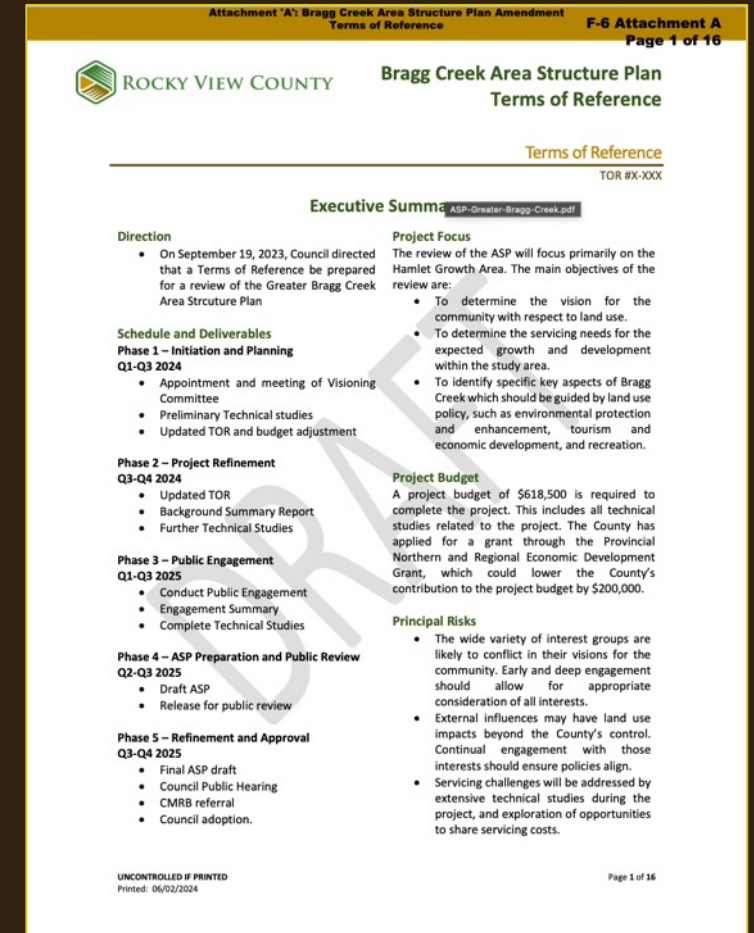
- Created in 2007, updated in 2016
- Currently being re-developed



BRAGG CREEK'S PLAN


Greater Bragg Creek ASP

- Terms of Reference just approved
 - (6) Natural Environmental features – to ensure the inherent and intrinsic value of natural features are preserved;
 - (7) Economic Development and Tourism – to ensure that increasing tourism and visitor traffic is provided for and managed effectively, and to ensure that amenities serving the local community are provided for.





Nature



ECOSYSTEM ASSETS, FUNCTIONS AND SERVICES

ECOSYSTEM ASSETS, FUNCTIONS AND SERVICES

NATURAL FEATURE

The “things”, the “parts”

Wetlands

IN THE ASP

FUNCTION

What it does even if people are not around

- Retains stormwater
- Provides aquatic habitat provision
- Replenishes subsurface aquifers
- Etc. ...

MANAGEMENT FOCUS

SERVICE

The value people derive from that function

- Flood mitigation
- Drought mitigation
- Wildfire mitigation
- Pollution filtration
- Etc. ...

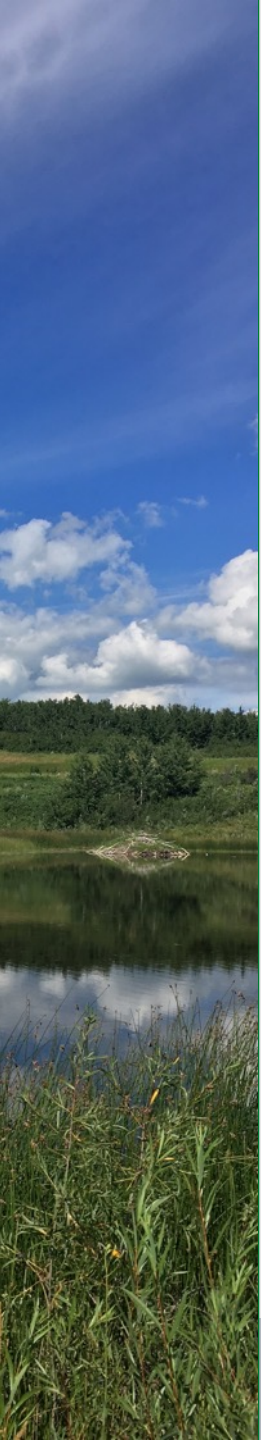
WHY WE CARE

ECOSYSTEM ASSETS, FUNCTIONS AND SERVICES

Why is 'function' important?

- A focus on function allows you to target management action
 - Disallow things that impair the function / delivery of services
 - Encourage things that enhance function / delivery of services
 - Set localized or system-wide goals
 - E.g., Increase natural flood mitigation capacity

NATURAL ASSET INVENTORIES



NATURAL ASSET INVENTORIES

Natural infrastructure

- Recognition that nature provides 'infrastructure' services
 - Health, water management, sense of place, gathering sites, adaptation
- These can be identified and planned for
 - Protection, augmentation, restoration



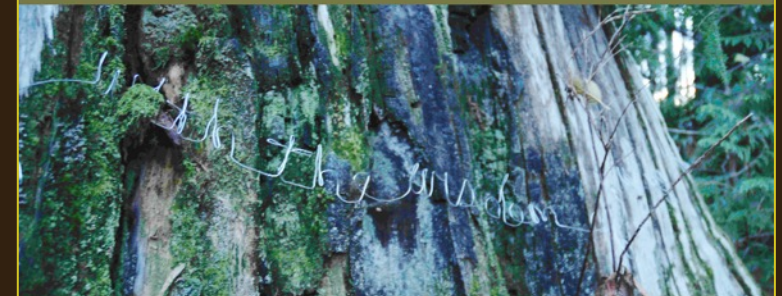
NATURAL ASSET INVENTORIES

Natural Asset Management (NAM)

- A specific approach used in the municipal context
- Most often in stormwater management
- Contrasts 'grey' and 'green' infrastructure
- Costs these 'assets', and adds them to the municipal asset management system

ADVANCING MUNICIPAL NATURAL ASSET MANAGEMENT:

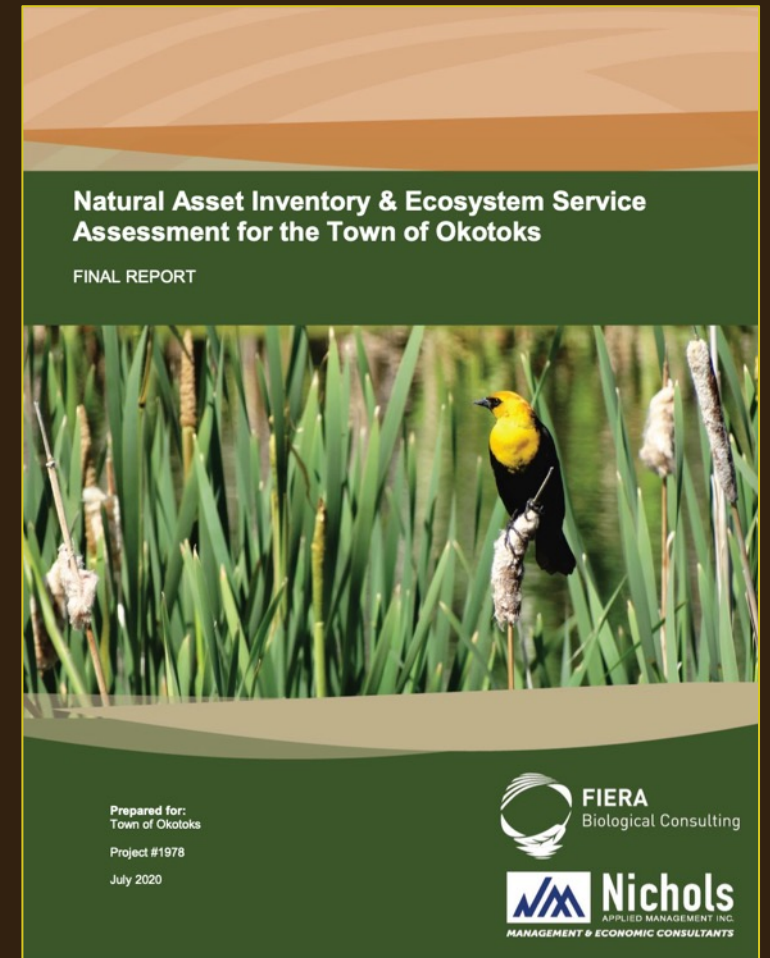
The Town of Gibsons' experience in financial planning & reporting



NATURAL ASSET INVENTORIES

Inventories

- Can vary
 - Can be focused on spatial identification, remote sensing
 - Can be community-based
 - Can include features or features/systems/benefits
- Can have financial assessment or economic assessment or non-dollar assessment



NATURAL ASSET INVENTORIES

Fully Natural

- Rivers, streams, creeks
- Wetlands, lakes, ponds
- Riparian areas
- Wet soils
- Native vegetation
- Tree canopy
- Naturally permeable soils, surfaces
- Vegetated channels
- River and stream meanders
- Steep slopes, ridgelines

Built/engineered

- Constructed wetlands
- Stormwater ponds
- Natural vegetation
- Green roofs
- Open curbs
- Planted medians
- Vegetate swales
- Infiltration planters / galleries
- Rain gardens
- Pervious surfaces
- Cisterns and rain barrels

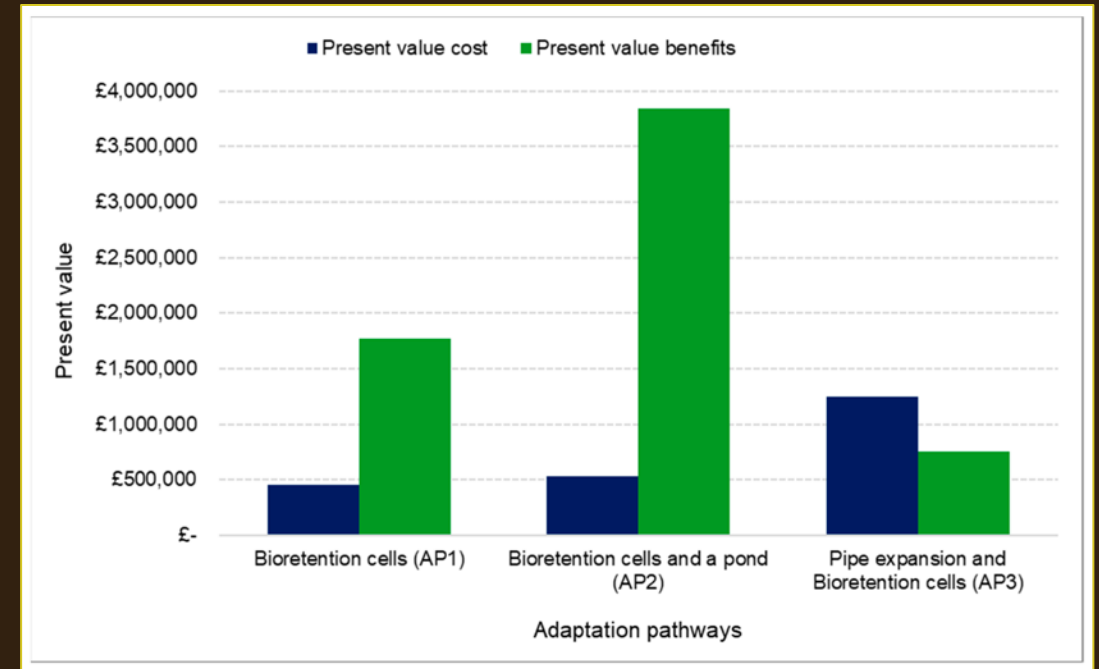
VALUATION



VALUATION

Approaches

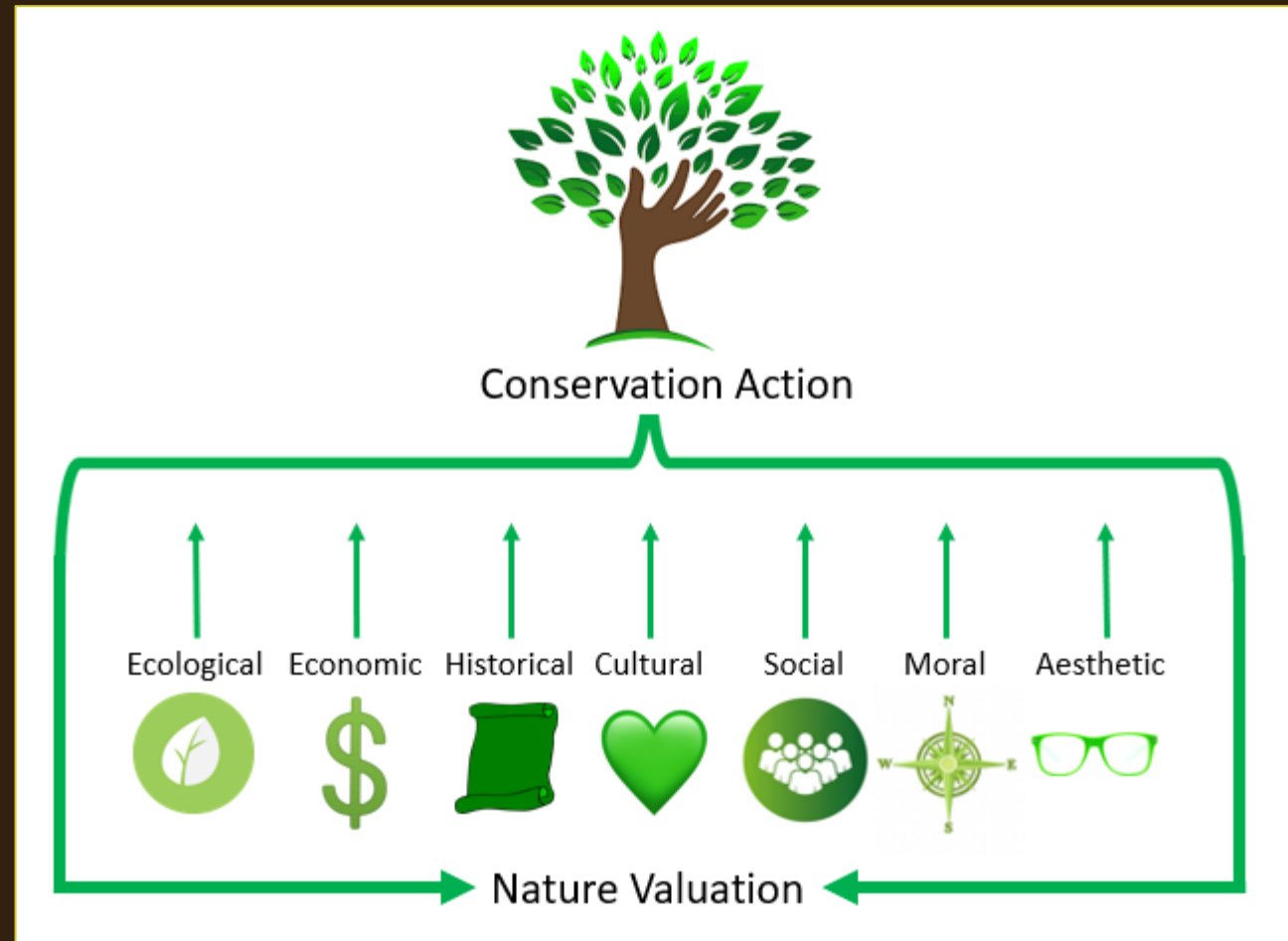
- Making the case
 - Broad theoretical numbers to show items have economic heft
- Costing infrastructure assets
 - Specific financial assessments that compute replacement value



VALUATION

Pros and Cons

- Financial valuation can get natural assets in the asset management (and budgetary) system
- Financial valuation can also tend towards 'easy to value' versus 'valuable'





Protection

IDENTIFICATION VS PROTECTION



IDENTIFICATION VS PROTECTION

Nature Inventories and Environmentally Significant Areas (ESAs)

IDENTIFICATION

- Note their importance
- Catalogue
- Map them



PROTECTION

- Maintain their identified values
- Action-oriented
- Restrictions and requirements

IDENTIFICATION VS PROTECTION

Protection

**PROTECTING THE
FUNCTIONS**

of natural assets

**ENSURING THE
BENEFITS**

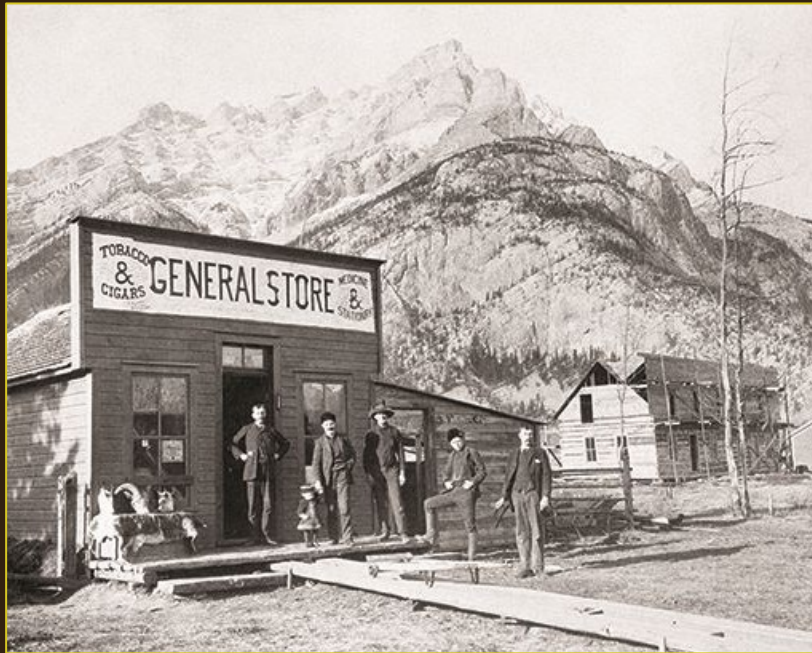
of natural assets



CONSERVATION IN THE 21ST CENTURY

CONSERVATION IN THE 21ST CENTURY

19th and 20th Centuries

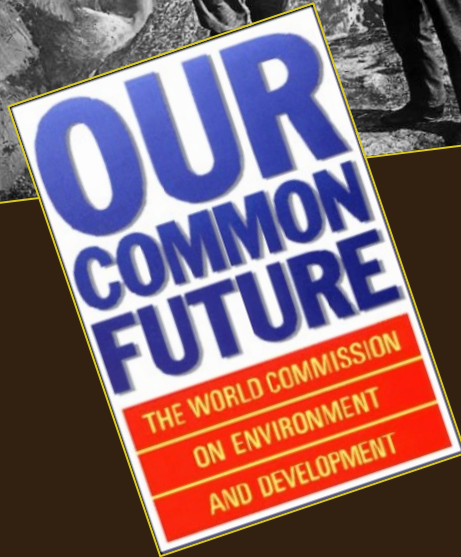
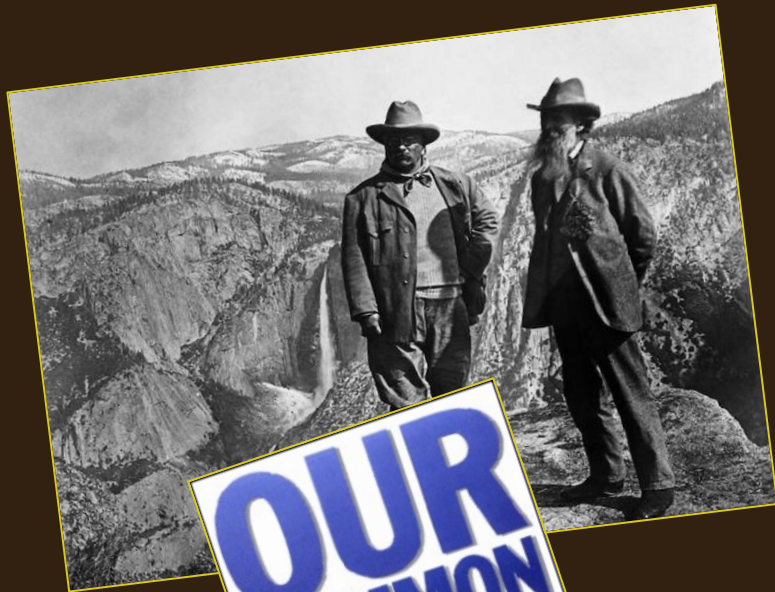


Conservation

- Simple land use matrix
- Draw lines around areas
- Cross fingers
- 1880's (Muir and Roosevelt - draw lines and defend)
- 1980's (12% nothing happens; 88% pillage)

CONSERVATION IN THE 21ST CENTURY

19th and 20th Centuries

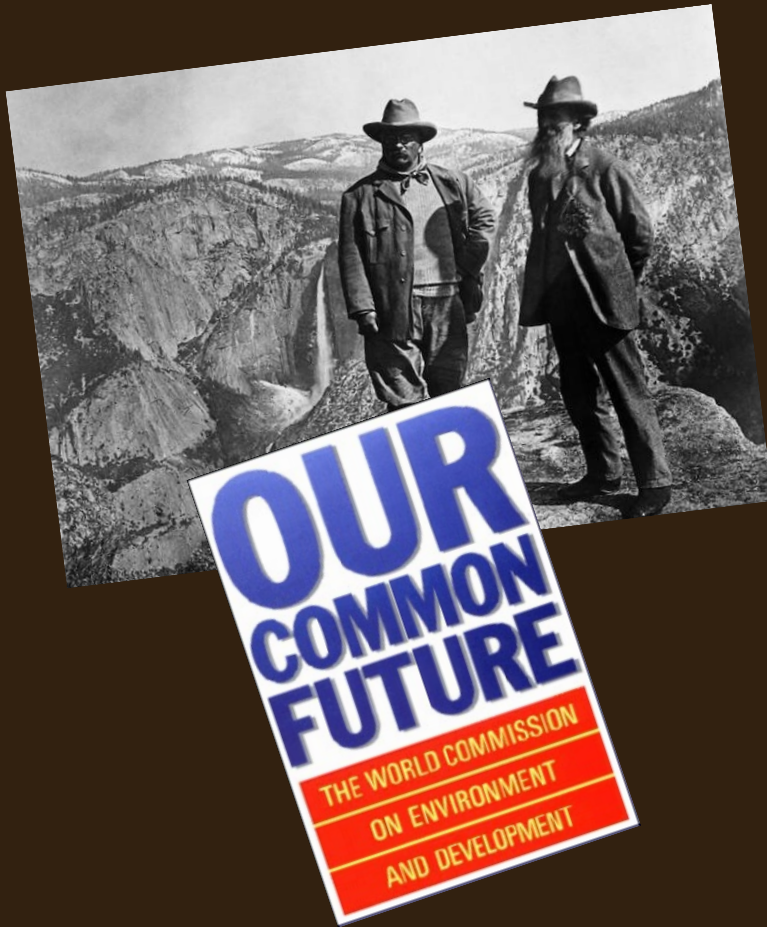


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CONSERVATION IN THE 21ST CENTURY

19th and 20th Centuries



Rationale

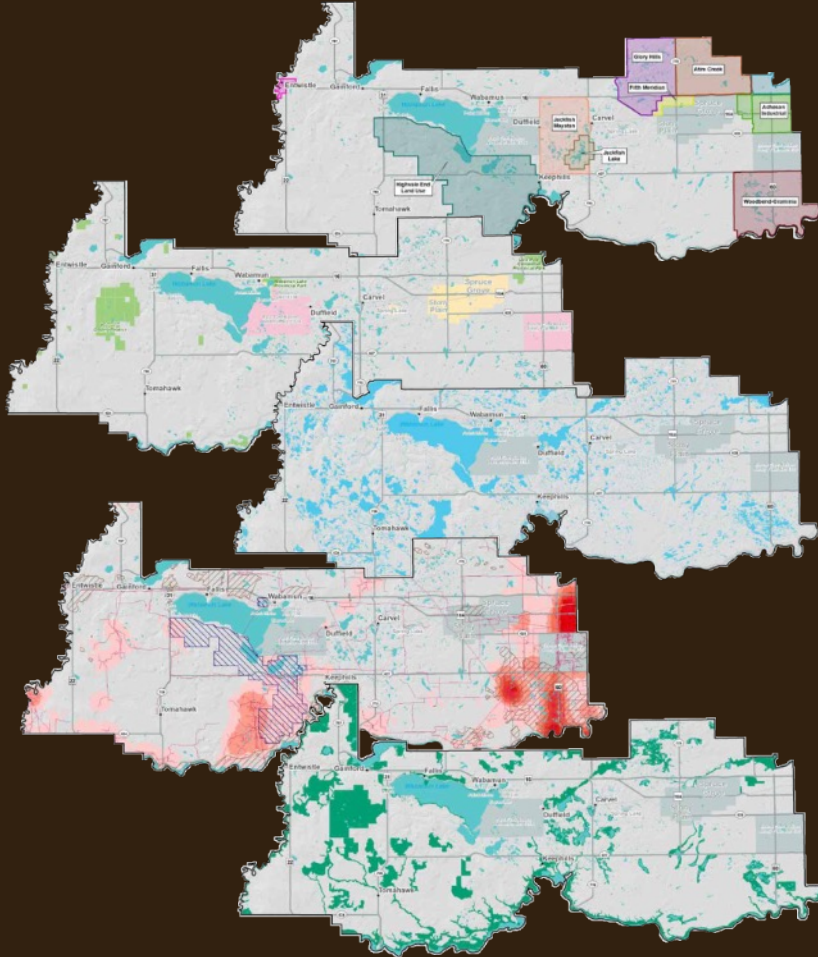
- Didn't know what we were protecting
- Triage

Policy

- Simple
- Command and control

CONSERVATION IN THE 21ST CENTURY

21st Century

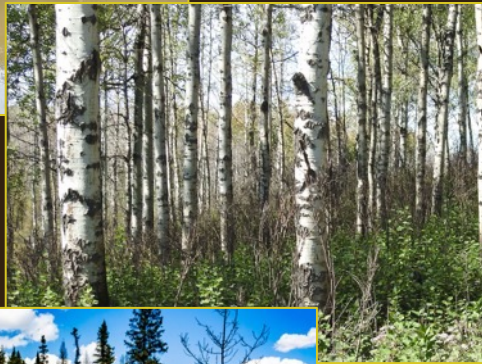


Conservation

- Complex matrix of land uses
- ‘Systems’ not ‘pieces’
- Humans and nature
 - ‘protected’ does not mean exclusion of human activity
 - ‘System’ not wholly contained in the ‘protected’ area

CONSERVATION IN THE 21ST CENTURY

21st Century

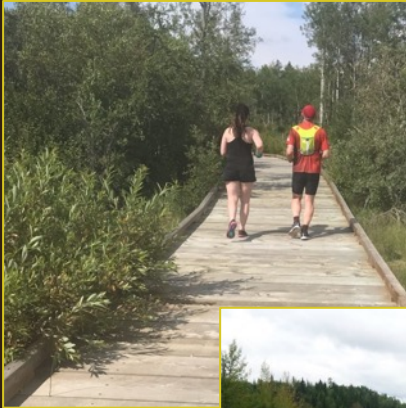


Rationale

- Resilience
 - Disaster, Climate change
- Endurance (sustainability)
 - Ecological, Economic, Community
- Distribution
 - Access across the community to nature's services

CONSERVATION IN THE 21ST CENTURY

21st Century



Policy

- Development aware
 - Business, Infrastructure, Human activity
- Beyond ecology and dollars
 - 'Soft' purposes
- Function focused
 - Where to direct the management action to 'conserve' what we value

TOOLS AND APPROACHES



TOOLS AND APPROACHES

Environmentally Significant Areas (ESAs)

- Different types
 - Provincial, municipal, regional
- NOT a protective designation
 - No associated guidelines, protection, constraints, etc. – simply an observation



TOOLS AND APPROACHES

Protection tools

**Environmental
Reserves**

**Natural
Asset
Mapping***

**Conservation
Easements**

**Natural
Areas**

**Corridor
Mapping***

* if associated protective policy exists

TOOLS AND APPROACHES

Protection policy

Riparian
Policy

Wetland
Policy

Development
Guidelines

Buffers and
Setbacks

Corridor
Guidelines

TOOLS AND APPROACHES

Proposals to municipal governments must speak to their value in a variety of ways.

But 'environment' is described – unnecessarily – in a different way from other factors.



TOOLS AND APPROACHES

Examples

CONTRIBUTORY

HARM REDUCTION

HEALTH

Increase available services

EMPLOYMENT

Add new jobs

ECONOMY

Dollars-worth of new economic activity

SERVICES

Increase community services

ENVIRONMENT

Limit the amount of nature we destroy

TOOLS AND APPROACHES

Examples

CONTRIBUTORY

HARM REDUCTION

HEALTH

Increase available services

Limit the number of people who die

EMPLOYMENT

Add new jobs

Limit the number of people who lose jobs

ECONOMY

Dollars-worth of new economic activity

Limit the drop in economic activity

SERVICES

Increase community services

Limit the decrease in power supply

ENVIRONMENT

Limit the amount of nature we destroy

TOOLS AND APPROACHES

Examples

CONTRIBUTORY

HARM REDUCTION

HEALTH

Increase available services

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EMPLOYMENT

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ECONOMY

Dollars-worth of new economic activity

Limit the drop in economic activity

SERVICES

Increase community services

Limit the decrease in power supply

ENVIRONMENT

Add to / protect the flow of ecosystem services

Limit the amount of nature we destroy

TOOLS AND APPROACHES

Regenerative Tourism

TRADITIONAL

Providing services
and deriving
financial returns

SUSTAINABLE

Providing services
and deriving
financial returns

Minimizing harm to
the underlying
system

REGENERATIVE

Providing services
and deriving
financial returns

Actively heal and
enhance the
underlying system



Moving Forward

MOVING FORWARD

Be as proactive as possible

- Present your vision for nature-based tourism in Bragg Creek; don't wait for others'
- Develop a vision for regenerative tourism in the Greater Bragg Creek Area
- Do your own work, your own studies



MOVING FORWARD

Engage with Bragg Creek Wild

- Learn more about regenerative tourism for the Greater Bragg Creek Area
- Watch for natural assets scan work in the community



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