Crown LCD Leadership Meeting Notes
April 28, 2020

Action Items (April):

What?	Who?	When?
Send Natalie photographs for the website	Everyone	As available
Think about how you (and your organization) wants to be identified on the website Your name? Org name? Logo? All the above? Not at all?	Everyone	By 26 May Leadership Team call. Email Natalie, Mary and/or Sean if you have input before.
Create a map and GIS file of the Crown LCD Project Area	Phil and Sean	Before May Technical Team call (5/12)
Identify any plans or planning documents we've missed that should be included in integration assessment. See attached spreadsheet for working list.	Everyone	As soon as is reasonable possible; Email Natalie, Aubin and/or Sean
Think about your organizations highest priority Features and be prepared to provide input to Feature Selection process in May.	Everyone	By 26 May Leadership Team call.
Convene the Vision Statement Sub-committee (Chad Willms, Mary McClelland, Anne Carlson, Kris Tempel, Danielle Pendlebury, plus other volunteers)	Natalie	At least 1 discussion before 26 May Leadership Team call.

Action Items (Prior):

What?	Who?	When?
Follow up on recommendations for additional stakeholders	Sean	Before 26 May call

Follow up with Mike D, CSKT and other Tribes & First Nations	Sean	Before 26 May call
Review and synthesize key elements from existing plans	Analysts and Technical Team	Before April Leadership Team call

Meeting Notes and Materials:

Recording: Unfortunately the audio did not record during our April call. Adobe Connect acknowledged challenges with managing data volumes. The visual recording can be accessed at: https://meet39041854.adobeconnect.com/p7e9ma486zbp/

Presentation Slides: Attached (Crown_LCD_LeadershipTeam_4-28-2020.pdf)

Next Call: May 26, 2020 at 11 am

Other Attachments: Crown LCD Plan Review_as of 4-28-2020.xlsx

Attendees
Mary McFadzen: Science Outreach, MSU
Kris Tempel: Montana Fish, Wildlife and Parks
Natalie Poremba: Conservation Priorities Coordinator, Crown Managers Parternship
Katie Morrison CPAWS: Canadian Parks and Wilderness Society - Southern Alberta
Phil Matson: Flathead Lake Biological Station, Crown Managers Partnership - GIS Database Manager
Tracy Lee: Miistakis Institute
Anne Carlson: Senior Climate Adaptation Specialist, The Wilderness Society (and Crown Managers Partnership SC member)
Constanza von der Pahlen: Flathead Lakers
Aubin Douglas: USFWS Cartography/GIS intern for Div. of Realty
Connie Simmons: Y2Y (SW Alberta)
Kelly Cooley: CoolPro Solutions (Alberta)
Linh Hoang: US Forest Service
Michael Jamison:
Kris Inman: WCS Partnerships Program
Erin Sexton:
Brian Marotz:
Chad Willms: AB Env and Parks
Kim Pearson: Parks Canada
Mary McClelland: West Glacier Visioning Project, Gateway Project
Tara Carolin, CCRLC, Glacier NP
Sean Finn: Science Coordinator, US Fish and Wildlife Service

Agenda

1. Quick review of agenda, any additions?
2. New Website
   a. How do we identify partner organizations & team members?
3. Review prior action items
4. Project Area: Tech Team recommendation
   a. Discuss and decide
5. Feature Selection: Review of Existing Plans
6. Vision Statement revisit
7. Other topics

New Website (Slide 3 and live demo)**:**

Natalie provides a walkthrough of https://www.crownmanagers.org/landscape-conservation-design and linked pages. Still under construction! Could use a few photos and we also need to decide how to reference Leadership Team members and partner & stakeholder organizations.

Chat box Comments:

Aubin Douglas (USFWS - Realty): Looks great!
LInh Hoang (US Forest Service): it looks fabulous
Kim Pearson: Agreed; thank you, Natalie!
Kelly Cooley: Natalie does great work!
Anne Carlson: Great work, Natalie - and hope that folks on this call might share some good photo options with her as she continues to build the site out.
Natalie Poremba: thanks, all! Also giving a shout out to Mary McFazden who worked on the site with me. And Anne is absolutely right - photos are always enthusiastically welcome!
Erin Sexton: nice work Mary and Natalie - we are lucky to have both of you super talented ladies!

Review Prior Action Items (Slides 4-5)**:**

Holdovers listed on page 1 (above)

Project Area: Tech Team recommendation (Slides 6-19)**:**

Phil walks Leadership Team through the process of evaluating options; reviews a selection of other LCDs; describes a few candidate options the Technical Team entertained; characterized Tech Team deliberations (including 'Pros and Cons' of various approaches) and how the Tech Team came to the their recommendation.

Voice Comments:

Chad Willms: East extent of the proposed project area extends into private lands that have little conservation opportunity due to traditional and current land uses. The project area as proposed would be capturing heavily modified landscapes. That may confound the Marxan analysis.

Tracy Lee, Miistakis Institute: yep:) [in response to audio question about development of CMP's definition of the Crown ecosystem]

Kelly Cooley: This legal jurisdiction option seems to contradict the aims of this initiative.

Kelly Cooley: I would think natural feature boundaries are more appropriate.

Connie Simmons: Include native fescue grassland where we can.

Aubin Douglas (USFWS - Realty): Looks good!

Tracy Lee, Miistakis Institute: I like it, and think for monitoring trends over time and various scales or within juridictions watersheds is a good approach.

Kris Tempel: Would the area be the pink watersheds or the dark pink line? [Pink watersheds]

Constanza von der Pahlen: Looks good. Seems valuable, however, to keep those layers in mind when assessing different conservation factors or stresses to see if the logic holds.

Kelly Cooley: Here's Alberta's HUC Watershed Info: https://geodiscover.alberta.ca/geoportal/rest/metadata/item/243f7273de0a435f8099f193f81662b3/html

Anne Carlson: Like this approach as well - thanks much.

Kris Tempel: It looks good to me and for the areas FWP has been focusing on for habitat conservation priorities.

Aubin Douglas (USFWS - Realty): If we wanted, we could always "block out" developed areas if we want to see how those land uses impact the analysis/model

Aubin Douglas (USFWS - Realty): within Marxan

Kelly Cooley: That sounds like a great idea

Kelly Cooley: test run it with that variable considered

Kelly Cooley: What is the argument for the buffer again? [Voice response: some watershed that intersect the edge of the CMP definition of the Crown ecosystem came very close (or matched) the edge of the CMP basemap. The Technical Team though that collection of watersheds would potentially 'miss' some important elements occurring along the boundary of the basemap. So the Tech Team suggested a 20 km buffer and subsequent intersection of watersheds)

Kelly Cooley: Was just providing the HUC Alberta link for everyone on the call's quick reference (I realize the technical team has the data).

Kelly Cooley: Thank you. That makes sense.

Kelly Cooley: No objection - would be great to see where these boundaries intersect with satellite visible landscape features.

linh hoang usfs: thanks for walking us through that!

Anne Carlson: I really like Aubin's idea.

linh hoang usfs: me too!

Discuss and Decide:

The Leadership Team adopts the Technical Team recommendations – with considerations described above.

Chat box Comments:

Kris Tempel: Woohoo!

Kris Inman: Well done

Katie Morrison CPAWS: Thanks for all the thought and work you all put into that

Anne Carlson: Great job on this, everyone!

Aubin Douglas (USFWS - Realty): Woohoo!

Feature Selection: Review of Existing Plans (Slides 20-32)**:**

Sean describes the basic process we will use to identify and select Landscape Features that will form the structure of the spatial and strategic designs. Concepts are still in draft form and presentation today was a high level overview. For the Leadership Team: need to start thinking in earnest … what Features are very high priority (must have), what (if any) Features would your organization see as a red flag were it included, and what would you prefer? Also think about strategic ways to aggregate fine filter (e.g., species) Features into coarser filter (e.g., species guilds or habitats) Features.

Voice Comments:

Anne Carlson: We are living in a new world due to health crisis, where socio-economic considerations are of much higher importance. Equity issues are front and center: how will address that? Suggest we consider county data on economics (poverty rates, etc). We will likely need to be creative and re-envision data as it relates to economic information.

Lihn Hoang: Consider Features where current conditions already meet desired conditions. What then? What about consideration of plausibility? Would we establish targets that are not achievable? How would we know?

Chat box Comments:

linh hoang usfs: for criteria to consider - would vulnerabilty or degree threats be considered? [Yes!]

Constanza von der Pahlen: Once you have Desired Conditions, you can assess stressors, such as climate change, population growth, and assess how those stressors impact future desired conditions

Aubin Douglas (USFWS - Realty): We can also include a risk layer as well as a cost layer in different Marxan scenarios

Brian Marotz: Thank you for integrating the various plans.

linh hoang usfs: constanza - yes we can do that - but I think the degree of vulnerability from stressors on a feature will influence the DC - eg. how much is desired will be based on what is plausible

Chad Willms: do you want forest management plans, for example, for economic plans?

Anne Carlson: Thanks so much for bringing up the need to assess risk spatially, Aubin - you're on fire today! :)

Aubin Douglas (USFWS - Realty): Thanks Anne! :) And yes, Chad, we are looking at forest management plans, though there are always more to review

Kris Inman: This looks good.

Tracy Lee, Miistakis Institute: feel over-whelmed - look forward to next call where these are perhaps narrowed down:)

Kelly Cooley: Yes this is breathtaking in scope!

Constanza von der Pahlen: I realize these focal economies are those available in plans. The service economy (health, IT, realty, etc) is huge right now and likely will continue to be.

Katie Morrison CPAWS: I think that's a really important point - certain industries have more information but that doesn't necessarily make them more important from an ecological or even economic perspective

Constanza von der Pahlen: I'd like to add to Ann's earlier comment to address equity in new socio-economic futures, and add health and sustainability to that if possible.

Vision Statement revisit (Slides 33-34)**:**

Brief discussion on the need for and purpose of a Vision Statement that bfirefly describes the LCD effort. What we collectively see as a desired future for the Crown of the Continent ecosystem. Sean asks Leadership Team members to self-nominate for an ad hoc committee to draft a vision statement.

Chat box Comments:

Chad Willms: sure, i will
Anne Carlson: I'd be happy to join that sub-committee, Sean.
Mary T. McClelland: I'd be happy to participate and try to bring a community perspective
Kris Tempel: I would like to be part of the sub-committee.
Chad Willms (email follow up): encourage that someone, as much as possible, represents each of the jurisdictions on the vision setting subcommittee (AB, BC, MT, Fed (US & CA), Tribes, States, Local and NGO).

Wrap up comments:

Kelly Cooley: Thanks to everyone for all their hard wrok on this project!
Tara Carolin, CCRLC, Glacier NP: Ditto. Good progress today.
linh hoang usfs 2: thanks Sean - this discussion if evolving nicely!
Kris Inman: Thanks Sean I look forward to listening again to the recording since you gave us a lot of info to digest. [Unfortunately the audio did not record. Slides and video recording are available]
Mary T. McClelland: Many thanks for all your hard work!
Kim Pearson: Natalie/Aubin, are you still taking in new plans to review?
Natalie Poremba: yes, Kim!
Kim Pearson: Okay, I'll send you the WBRA SAR Plan
Constanza von der Pahlen: Thanks!
Aubin Douglas (USFWS - Realty): yes! feel free to email Natalie or I (my email: aubin_douglas@fws.gov)
Katie Morrison CPAWS: Thanks all!
Kris Tempel: Thank you everyone!

Crown of the Continent Landscape Conservation Design

Leadership Team call

28 April 2020

Agenda

- Quick review of agenda, any additions?
- New Website
  - How do we identify partner organizations & team members?
- Review prior action items
- Project Area: Tech Team recommendation
  - Discuss and decide
- Feature Selection: Review of Existing Plans
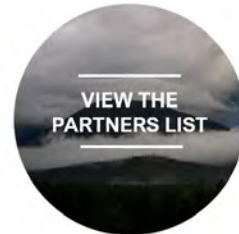- Vision Statement revisit
- Other topics

Web Pages

Landscape Conservation Design

Crown Managers Partnership (CMP) is leading integrative, data-informed conservation planning over the next 5 years. The goal is to bring all of the great science and planning across the Crown into a landscape scale 'design' that considers not only wildlife and ecosystems, but cultural, social, and economic priorities as well.

CMP and a vast diversity of stakeholder in the Crown have developed outstanding conservation programs focused on specific species and ecosystems (e.g., whitebark pine, native salmonids) and we are now, collectively, poised to integrate these programs and actions across the landscape through collaborative visioning and optimization modeling.

HOME   ABOUT   WHAT WE DO   WORKING GROUPS   FORUM

READ THE PRIMER DOCUMENT

WATCH OUR INTRO WEBINAR

VIEW THE PARTNERS LIST

EXAMPLES OF OTHER LCDS

Outstanding Action Items

Action		Owner	Due
Gather info on how other LCDs determined project area	✓	Sean	By Tech Team call (Apr 14)
Ask Tech Team for recommendation	✓	Sean	On Tech Team call (Apr 14)
Follow up on recommendations for additional stakeholders		Sean	Before 24 March
Think about your, and your organizations, vision of a future Crown; review slides		Everyone	Next 2 months (by mid-April)
Review and synthesize key elements from existing plans	✓	Analysts and Technical Team	Before April Leadership Team call

Crown LCD: Timeline (estimated)

2020

January - March

Confirm Leadership and Technical Teams
Review Management Plans
Data Synthesis

April - June

Crown LCD Workshop #1
Finalize Landscape Feature Selection
Complete Vulnerability Assessment
Develop Targets and Cost Layers

July - September

Initial Marxan Runs
Model Calibration
Additional Data Discovery

October - December

Optimization Modeling (Marxan)
Review Management Plans
Data Synthesis

2021

January

Spatial Design First Draft available for review

February - March

Technical Team Workshop
Evaluate First Draft, Adjust, Iterate
Optimization Models: Second Runs
Initiate Strategy Design

April - August

Complete Optimization Models
Crown LCD Workshop #2
First Draft Strategy Design

September - November

Review Spatial and Strategy Designs
Prepare Publications
Draft Metadata

December 2021

Design Released

Identify a Project Area

- Reviewed 7 existing LCDs

- Drafted several alternatives for the Crown LCD

- Technical Team reviewed, deliberated and came up with a recommendation

- **Today we ask the Leadership Team to adopt Technical Team's recommendation**

Some LCDs we looked at:

The Connect the Connecticut project identifies the best starting places for conservation within the Connecticut River watershed, which is also the defining boundary of the Silvio O. Conte National Wildlife Refuge.

BEACONS (ecoregion)

Connect the Connecticut (watershed)

Southeast Conservation Blueprint (legal)
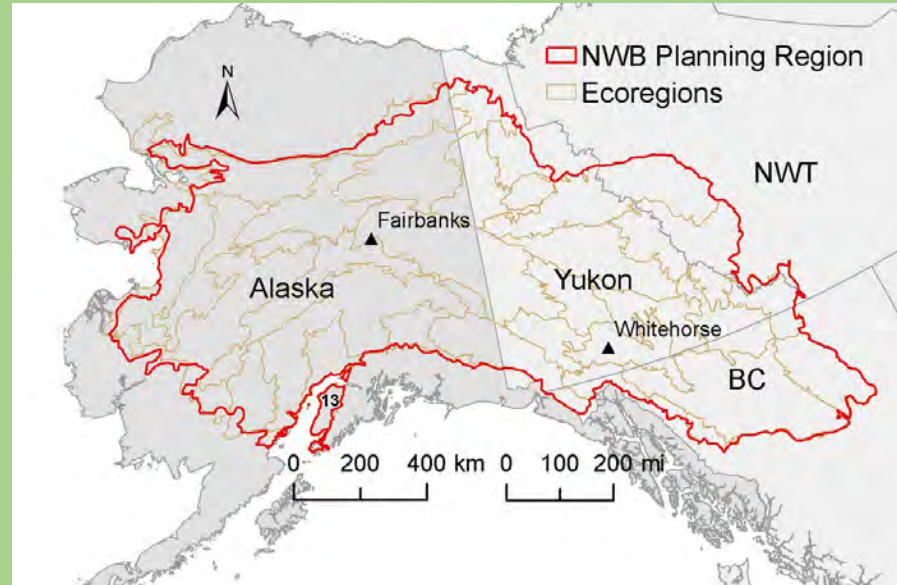
Southeast Blueprint Version 4.0 identifies high value areas for conservation and restoration across the Southeast and Caribbean.

Cascadia Climate Adaptation Strategy (watershed)

Potential Project Areas for Crown LCD

CCE as defined by Crown Managers Partnership

Used a combination of ecoregions, hydrologic units and the Kootenai River corridor

Potential Project Areas for Crown LCD
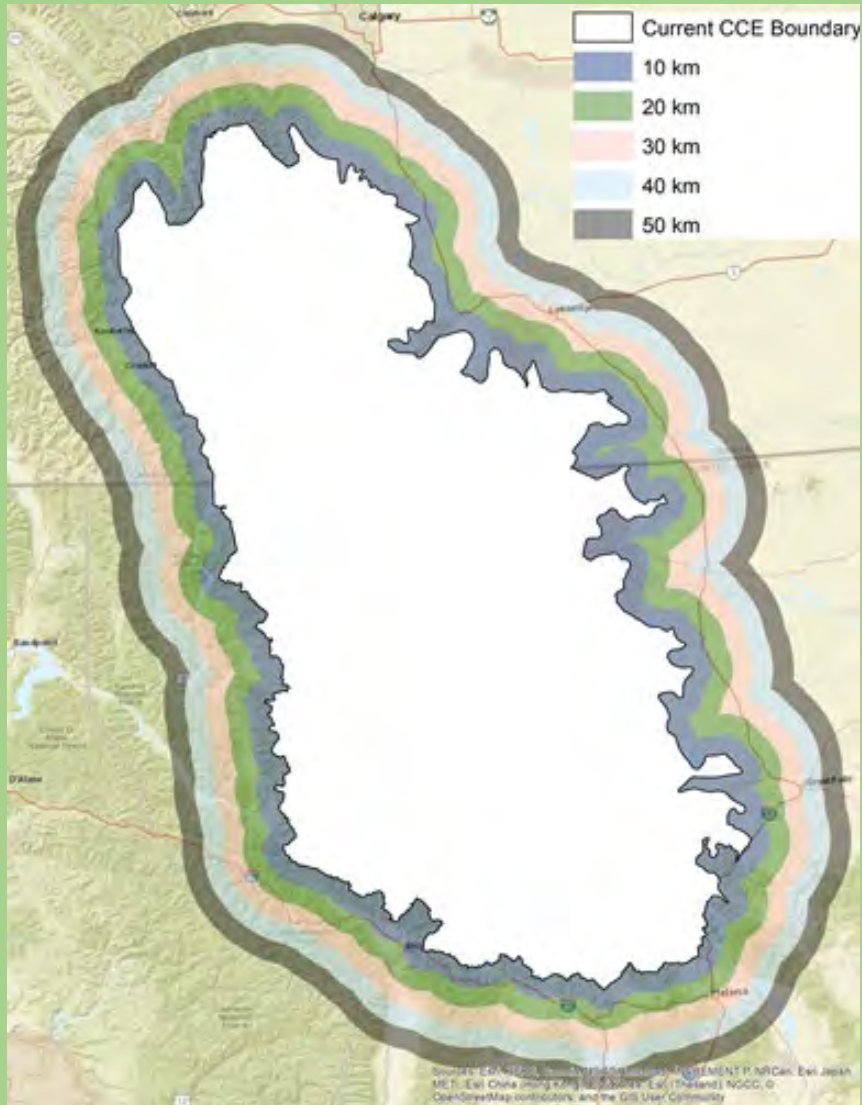
CCE boundary with standard buffers in 10 km increments

Potential Project Areas for Crown LCD
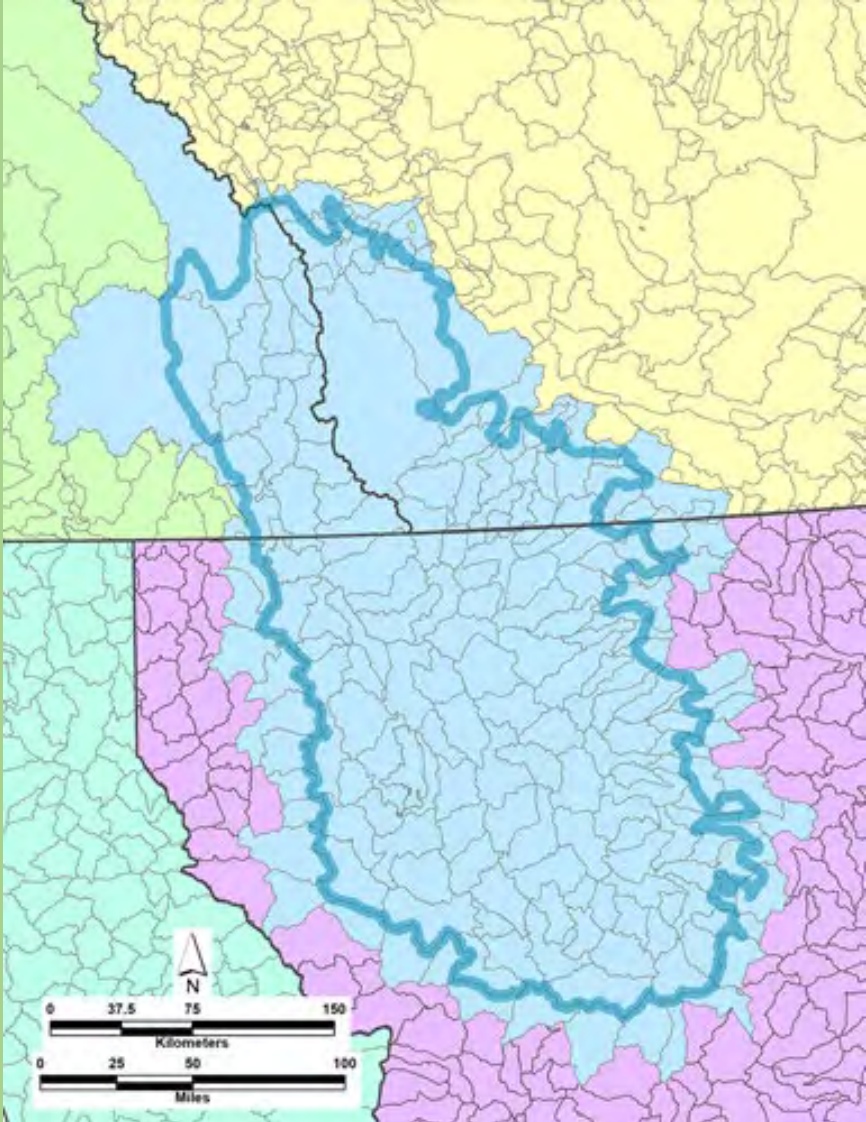
Area delineated by hydrological units that intersect CMP boundary

Potential Project Areas for Crown LCD
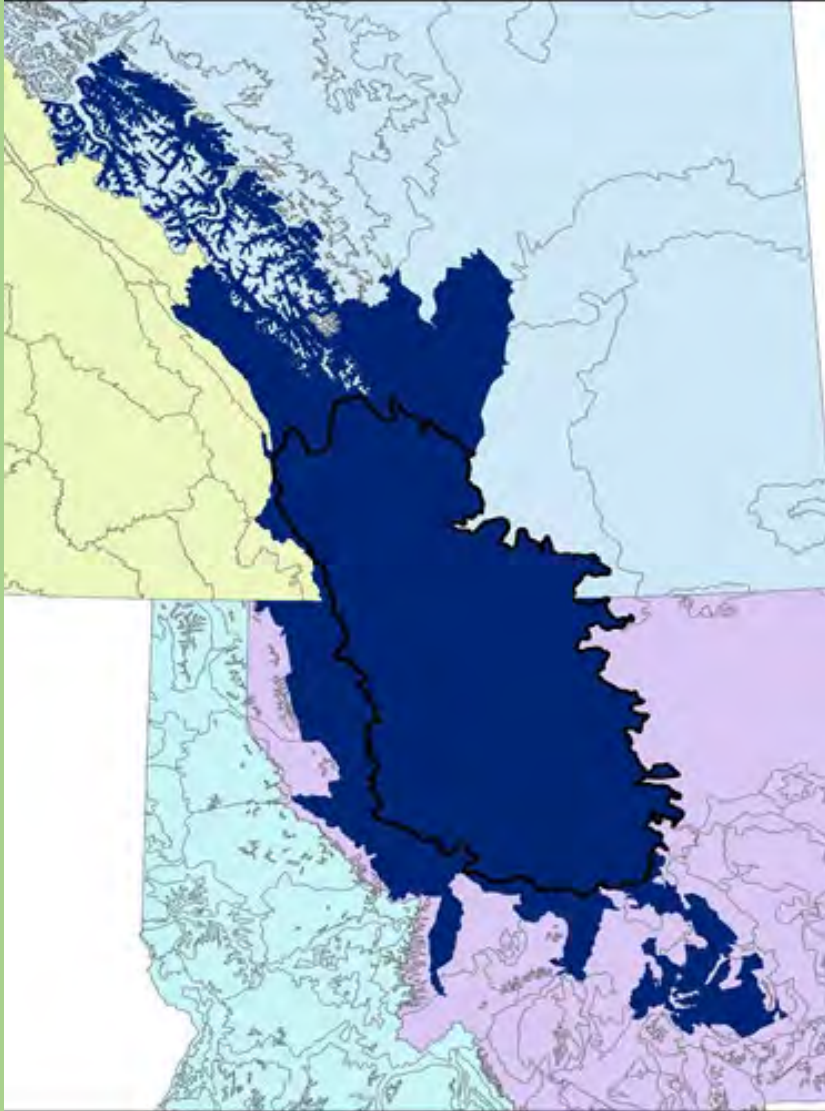
Ecoregions that intersect CMP boundary

Potential Project Areas for Crown LCD

Legal jurisdictions that intersect CMP boundary

Pros & Cons

Bounday Base	Pros	Cons
Original CMP CCE	Has been discussed and created collaboratively	May exclude areas that are important/prioritized since the creation of the boundary
Buffered CMP CCE	Ensures we capture important areas that may be just outside of the original CCE boundary (ie. MFWP priority ungulate migration areas)	A bit arbitrary - if we are buffering the original boundary, it may as well be to something that makes data compilation easier
Watersheds	We're not changing any initial decisions about CCE ecoregions, connectivity, etc. That was all decided in the original CCE boundary creation - in a sense, we are just buffering it a bit (so, in some ways, this makes our approach like cascades to coast) Seems to be the most consistent boundary across states and provinces	Watershed cross-cut jusridictions; may cause challenges during implementation
Conservation Feature based (ie. Make the boundary based on the features we want to focus on)	Practical in terms of considering the way that wildlife moves and functions	Geographic range for features like grizzly, whitebark pine, and native salmonids are very wide large - the boundary could cover extend to much ofthe western US and CA - it would be too large an area for data sets to cover
Legal Jurisdictions	Similar pros to watersheds with a focus that is slightly more geared towards human aspects	Legal boundaries are usually not congruent with species, ecosystems or hydrological units (watersheds)
Ecoregions	Used, in part, to define the original CCE boundary	Would not be as clean a border if it were left unadjusted (even the original CCE adjusted/cut through ecoregions that it used)
	Takes into account practical biological movement/functions	Does not align well across international border

Technical Team Recommendation
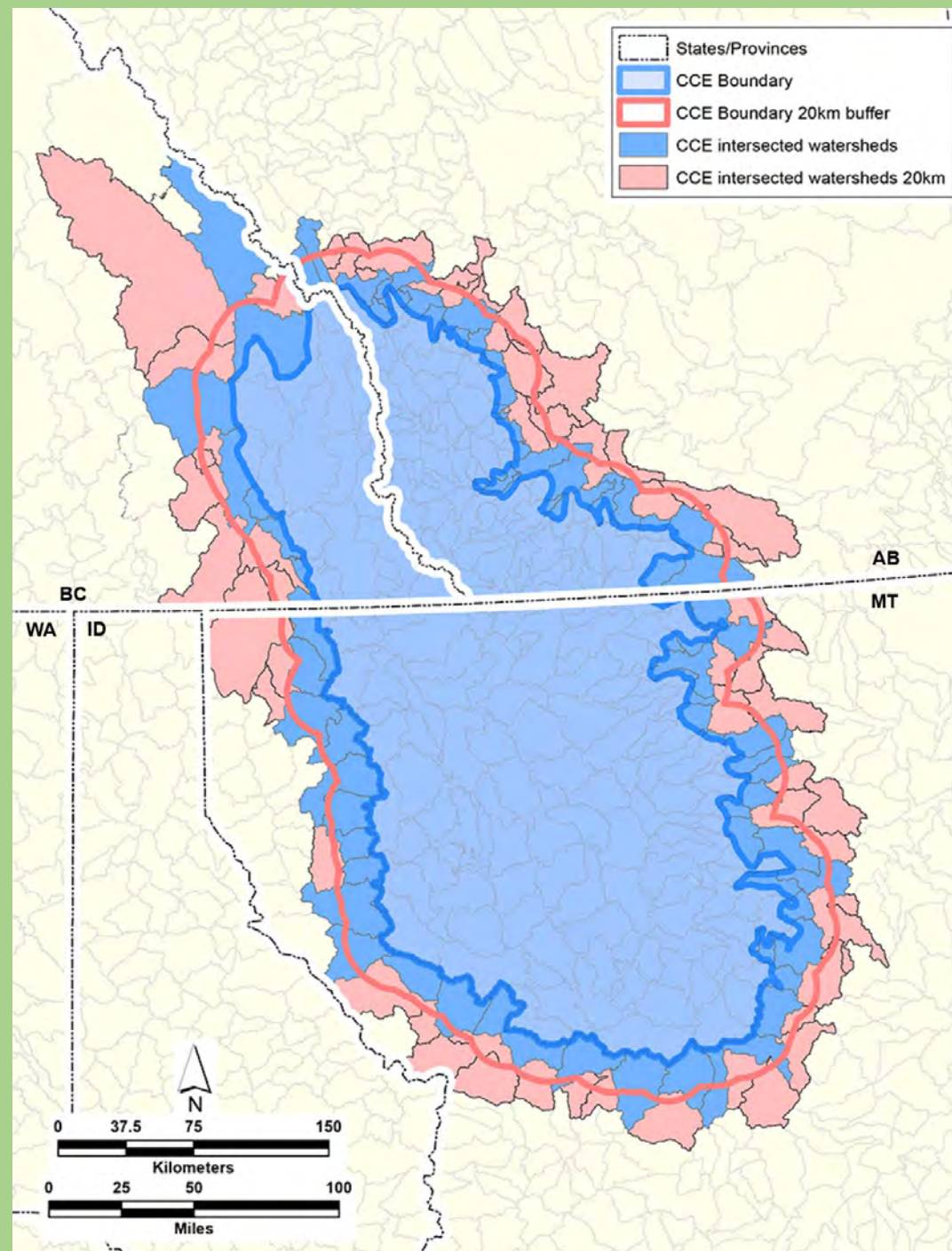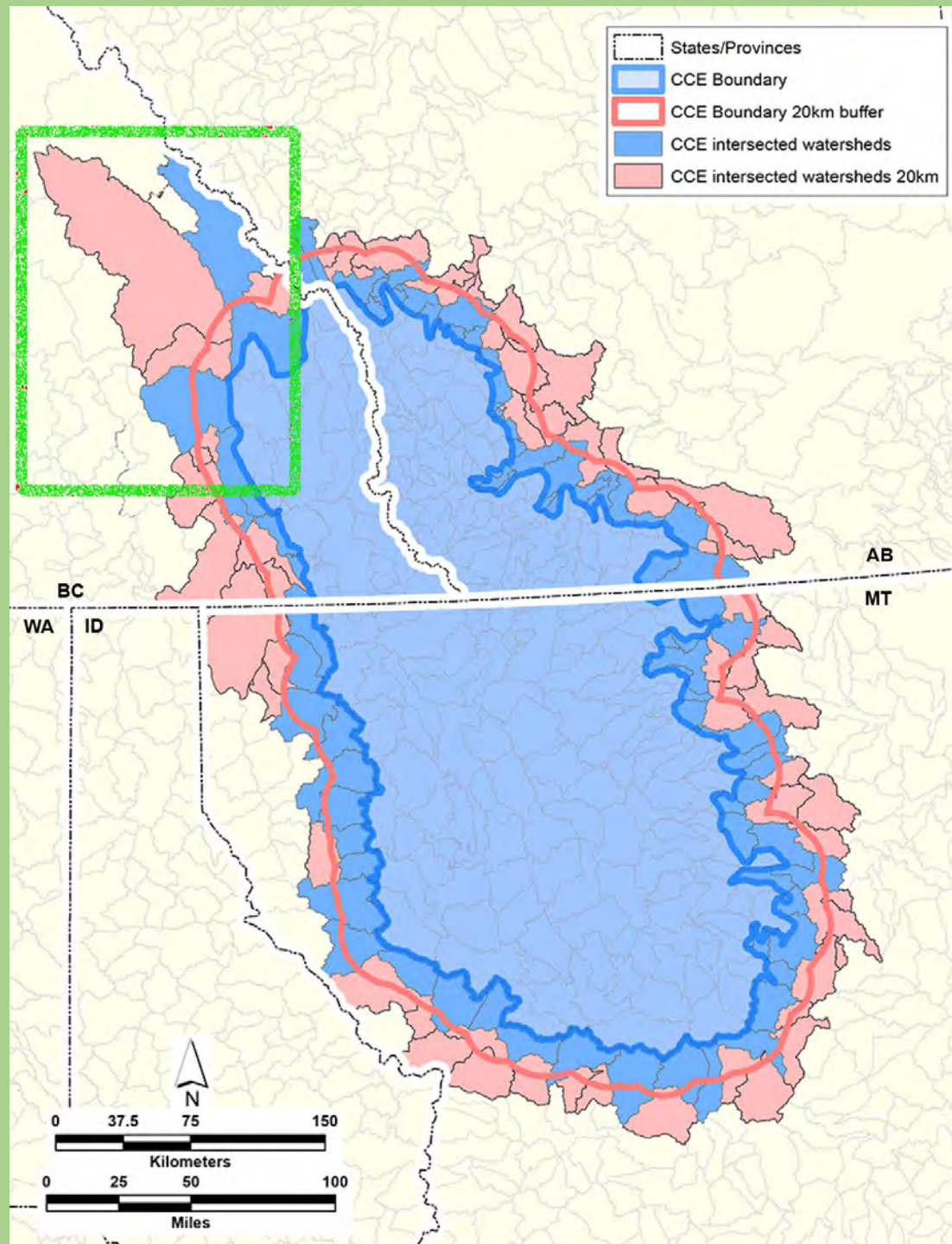
Technical Team Recommendation

Legend:
- States/Provinces
- CCE Boundary
- CCE Boundary 20km buffer
- CCE intersected watersheds
- CCE intersected watersheds 20km

Technical Team Recommendation
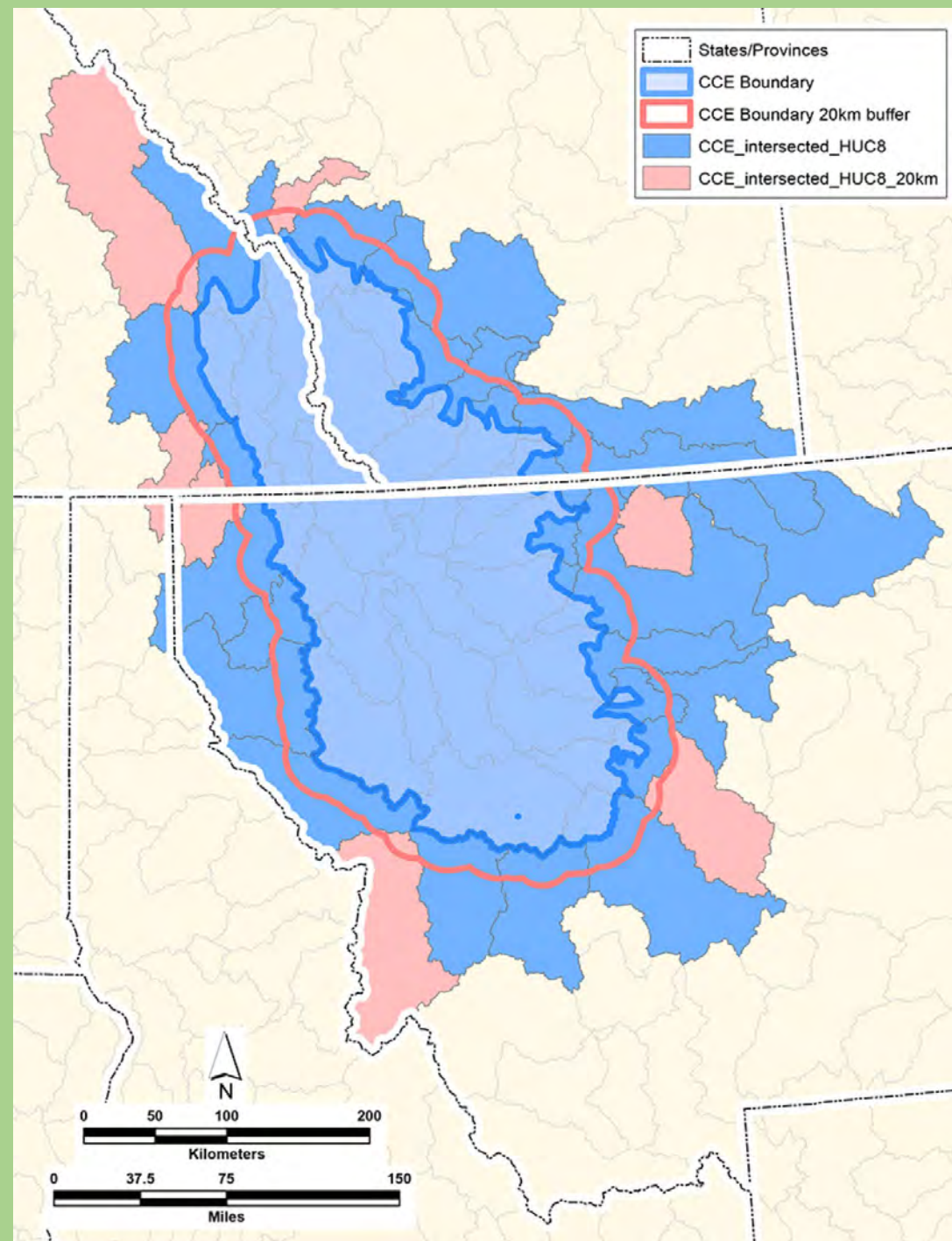
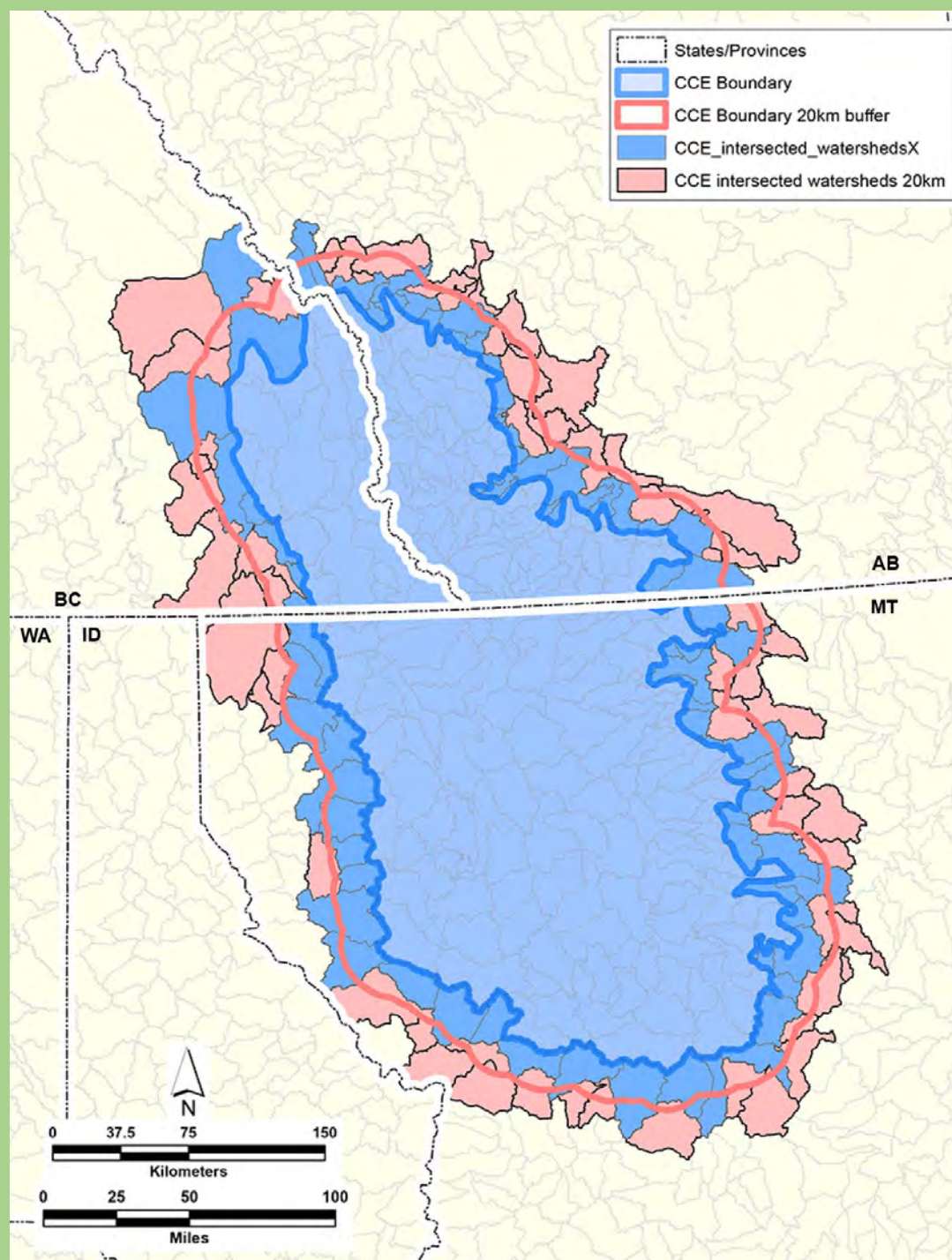# Technical Team Recommendation
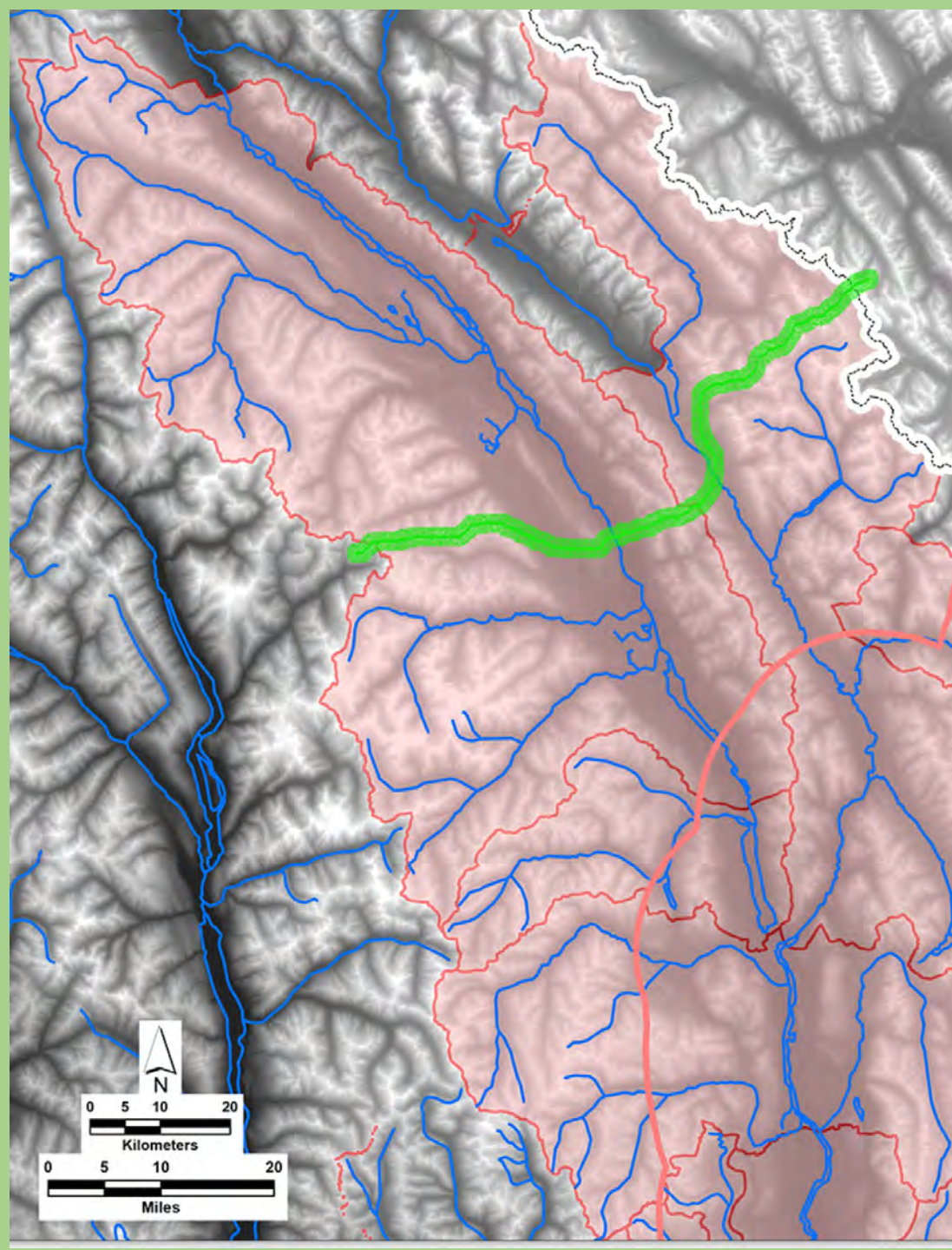
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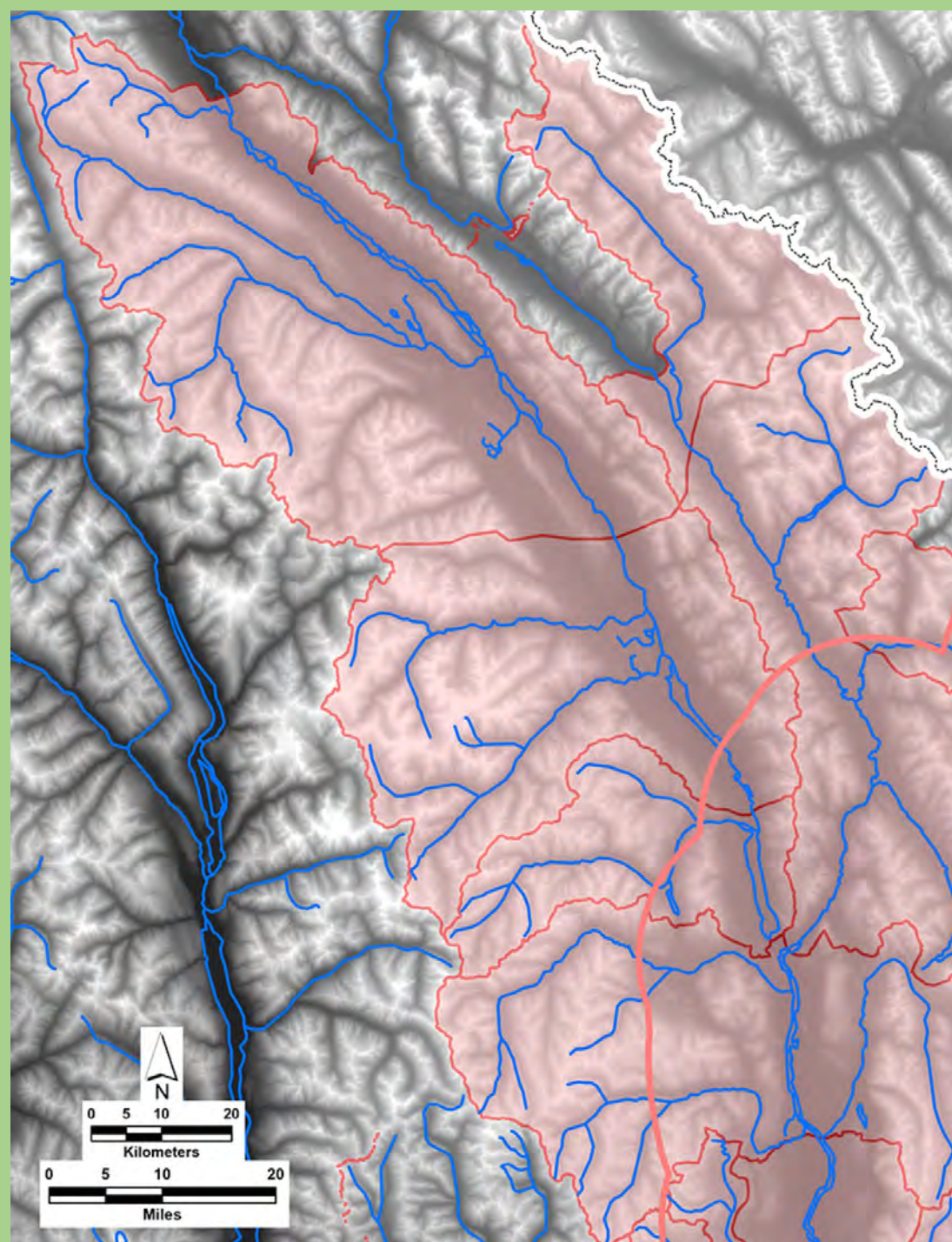
Technical Team Recommendation

Identify Landscape Features

What to Focus On?

Select Landscape Features:

- **Ecology**
  - Species
  - Habitat Types
  - Processes (i.e., connectivity)

- **Social**
  - Economies
  - Recreation

- **Cultural**
  - Traditional Uses
  - Historic Value

Criteria to Consider:

- **Representative**
- **Comprehensive**
- **Extent / Range**
- **Impact, Importance**
- **Context** (do we know enough?)
- **Contentiousness** (low)
- **Data Available**

How do we treat Landscape Features?
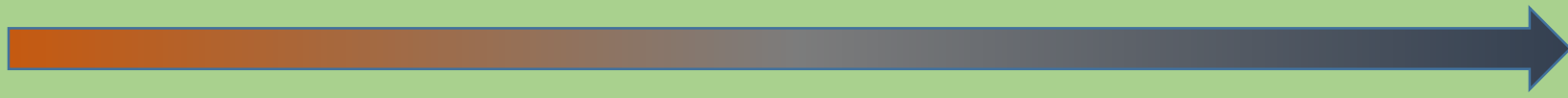
Current Condition → Desired Future Condition

Conceptual Models

Key Attributes & Indicators

Measureable Objectives

Barriers to Objectives (aka 'Costs')

Spatial Models

Leadership Team

Technical Team

Subject Matter Experts

Analysis Team

How do we treat Landscape Features?

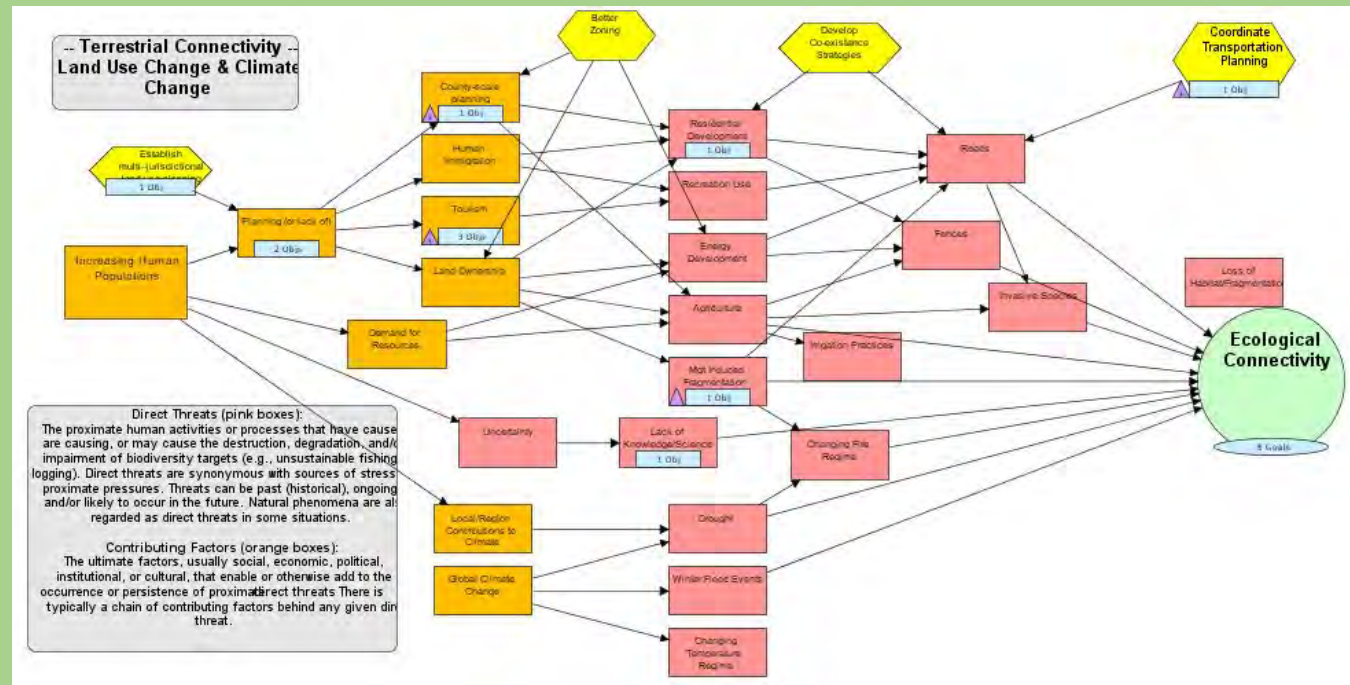**Current Condition** ➜ **Desired Future Condition**

Conceptual Models

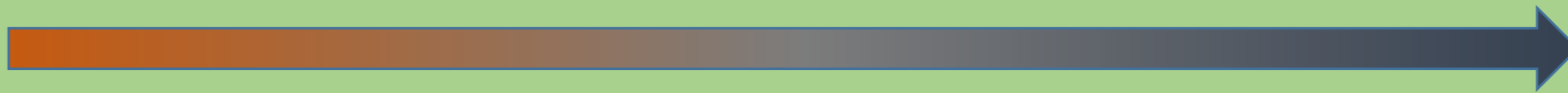Key Attributes & Indicators

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How do we treat Landscape Features?

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Spatial Models

Viability and Integrity Summary

Focal System or Species	Landscape Context	Condition	Size	Viability/Integrity
Shrub Steppe and Dry Grasslands	Fair	Fair	Poor	Fair
Riverine Systems	Unknown	Unknown	Unknown	Unknown
Depressional Wetlands	Fair	Fair	Fair	Fair
Dunes	Poor	Fair	Poor	Poor
Transitional Woodlands	Fair	Fair	Poor	Fair
Cliffs, Talus and Caves	Good	Unknown	Good	Good [1]
Grouse	Poor	Poor [2]	Poor	Poor
Burrowing Animals	Poor	Poor	Fair	Poor
Overall Viability/Integrity				Fair [3]

[1] This overall rank assumes that the condition of the vegetation in and around cliffs, talus and cave systems is no worse than other focal systems' condition – i.e. fair.
[2] Population growth rates for Sharp-tailed Grouse are high, due in part to translocation of birds from other states. However, natural growth rates for Sage-grouse are low, particularly in the Joint Base Lewis-McChord Yakima Training Center population.
[3] The overall viability/integrity of the system would be considered "fair" under all possible scenarios of integrity of the riverine systems (i.e. if the riverine systems' integrity were found to be poor, fair, good or even very good).

Key Ecological Attribute	Indicator	Poor	Fair	Good	Very Good	Information Source
Absolute Size	Patch size (acreage of shrub steppe)	Small (<40 ac; 16 ha)	(40-500 ac; 16-202 ha).	Large (500-1,000 ac; 202-405 ha)	Very Large (>1,000 ac; 405 ha)	Expert opinion (ALI 2014)
Landscape Pattern and Structure	Acreage of land surrounding large patches that is in semi-natural condition	Relictual: Natural or semi-natural habitat makes up <20% of land in a 500 m buffer around the patch	Fragmented: Natural or semi-natural habitat makes up 20-60% of land in a 500 m buffer around the patch	Variegated: Natural or semi-natural habitat makes up 60-90% of land in a 500 m buffer around the patch	Intact: Natural or semi-natural habitat makes up 90-100% of land in a 500 m buffer around the patch	Faber-Langendoen et al. 2008; Comer and Hak 2009
Connectivity	Acreage of land in large patches connected to other large patches	Isolated: No patches within 20 km cost weighted distance (100% dispersal capacity of grouse - larger movement species target)	Partially connected: One or more patches are within 20 km cost weighted distance (100% dispersal capacity of grouse - larger movement species target)	Connected: Two or more patches are within 1 km cost weighted distance (~100% dispersal capacity of burrowing animals - smaller movement species target). [3]		Follows rationale developed for WWHCWG's Statewide Analysis (WHCWG 2010)
Fire Regime	Departure from historical fire regime	>50% of total acreage of patches is in LANDFIRE Vegetation Condition Class (VCC) 3	Most (>60%) of total acreage of patches is in LANDFIRE VCC 2; <30% of total acreage of patches is in VCC 3	Most (≥60%) of total acreage of patches is in VCC 1; <10% of total acreage in VCC 3 [4]	>80% of total acreage of patches is in VCC 1	Based on ALI calculations; see ALI 2014 for details.
Relative Size	Acreage in shrub steppe ecological systems	Shrub steppe (target) is severely reduced from its original natural extent (<50% remains)	Shrub steppe (target) is substantially reduced from its original natural extent (50-80% remains)	Shrub steppe (target) is only modestly reduced from its original natural extent (80-95% remains)	Shrub steppe (target) is not reduced or is minimally reduced from natural extent (>95% remains)	Faber-Langendoen et al. 2008

How do we treat Landscape Features?

Current Condition ———————————————→ **Desired Future Condition**

Conceptual Models   Key Attributes & Indicators   **Measureable Objectives**   Barriers to Objectives (aka 'Costs')   Spatial Models

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"Desirable"

How do we treat Landscape Features?

Current Condition → Desired Future Condition

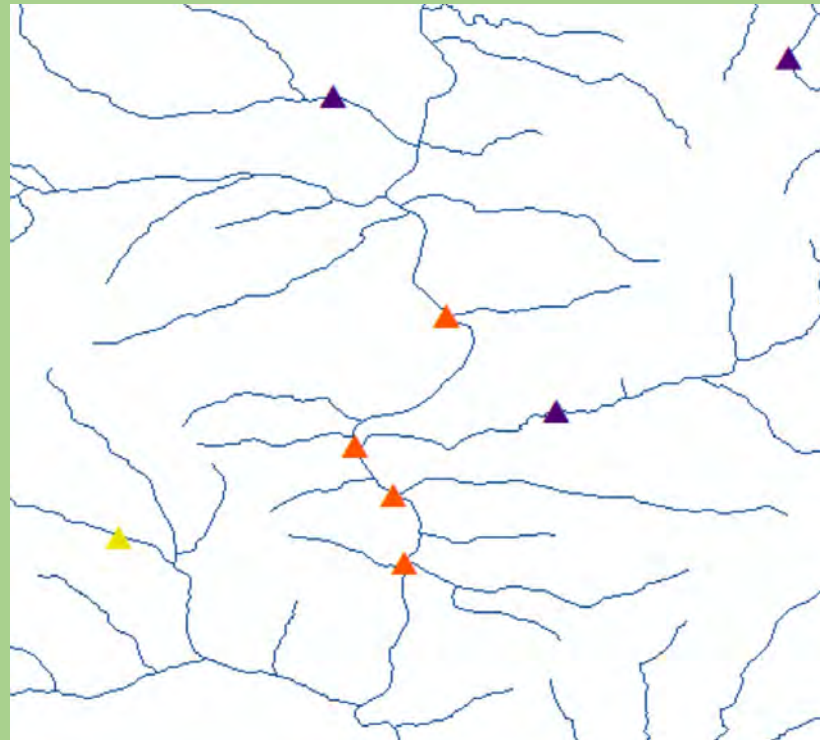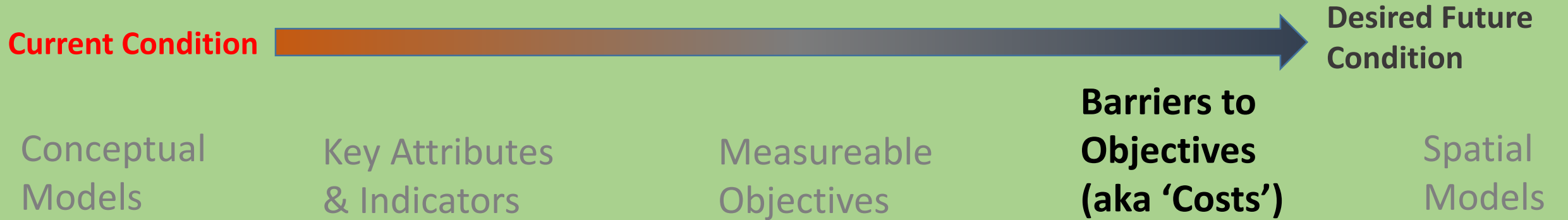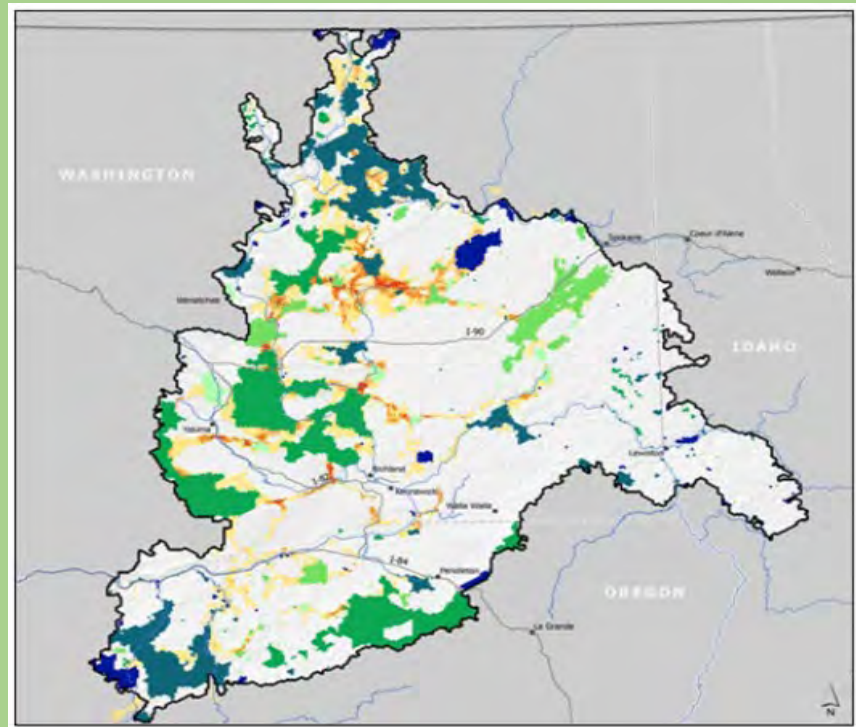Conceptual Models   Key Attributes & Indicators   Measureable Objectives   **Barriers to Objectives (aka 'Costs')**   Spatial Models

Dam
Road Culvert
Waterfall

How do we treat Landscape Features?

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Priority Core Areas

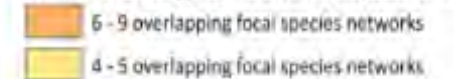Contribution of priority area to under-represented targets

- Low
- Medium-low
- Medium
- Medium-high
- High

WHCWG Linkages

Linkage centrality cumulative rating

- Very high linkage centrality
- High linkage centrality
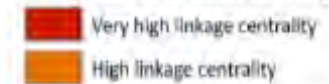
Number of overlapping WHCWG focal species networks

- 6 - 9 overlapping focal species networks
- 4 - 5 overlapping focal species networks

Landscape Features in the Crown of the Continent

DRAFT Proposed Landscape Features

Coarse Filter	Meso Filter	Fine Filter
Conifer Forest[1]	Mesic-Wet[1]	
	Xeric-Mesic[1]	
	Five Needle Pines[2]	Whitebark Pine[2,3]
		Limber Pine[2]
Alpine[1]	Grass & Shrub[1]	
	Sparse or Barren[1]	
Deciduous Shrubland[1]		
Montane Grassland[1]		Spalding's Catchfly[3]
Floodplain / Riparian[1]		Yellow-billed Cuckoo[3]
		Lewis' Woodpecker[1]
Wetlands[1]	Bog/Fen[1]	Water Howellia[3]
	Depressional Wetlands[1]	Waterfowl Production Areas[3]
Lotic Waters[1]	Intermountain Valley Rivers[1]	
	Intermountain Valley Streams[1]	**Cutthroat Trout[1]**
	Mountain Streams (Headwaters)[1]	**Bull Trout[1,2,3]**
		Redband Trout[1]
		Meltwater Lednian Stonefly[3]
Lakes and Reservoirs[1]		Lake Trout[1]
Meso-Carnivores[2]		Grizzly Bear[1,2,3]
		Wolverine[1,2,3]
		Canada Lynx[1,2,3]
		Fisher[2]
Refuge and breeding ground for native birds[3]	Migratory Birds (FWS - LT)[3]	Waterfowl[3]

Sensitive Plants[4]		Water Howellia[3]
		Spalding's Catchfly[3]
Wildlife Habitat Integrity & Ecological Connectivity[4]	Big Game Corridors[4]	Mule Deer
		Rocky Mountain Elk
		Pronghorn
Ecological Processes	Productivity	Net Primary Productivity
	Physical/Nutrient Cycles	Water Cycle
		Carbon Cycle
	Phenology	
	Disturbance Regimes	**Fire on the Landscape**
		Invasive Species
		Insects and Disease
Ecosystem Services	**Watershed Integrity and Resilience**	
Working Landscape[4]	Timber Economy[4]	Fiber supply[4]
		Quarry Rock[4]
Fish and Wildlife-based Recreation[3]	Hunting Access[3]	Disabled person access[3]
	Fishing Access[3]	
Landscape Conservation Design	Resilient Ecofacets	
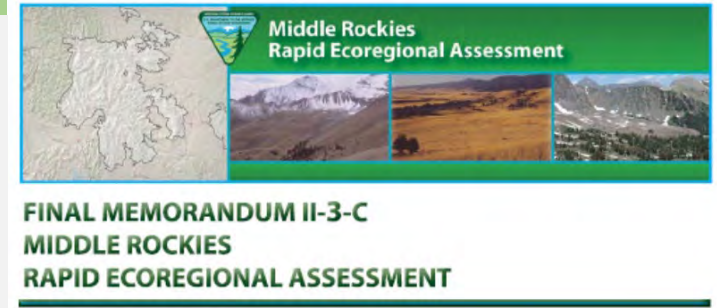
[1] **Montana State Wildlife Action Plan**   [3] **US Fish and Wildlife Service**
[2] **Crown Managers Partnership**   [4] **Proposed at Helena meeting**

Integration

In January Brian Marotz asked: How are you integrating existing plans? For example, how do you plan to use the 62 Subbasin plans in the US Columbia Basin?
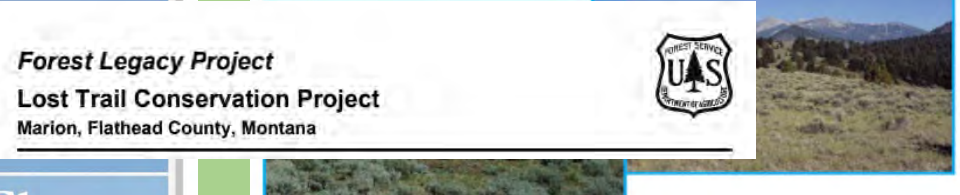
Review Existing Plans across the Crown

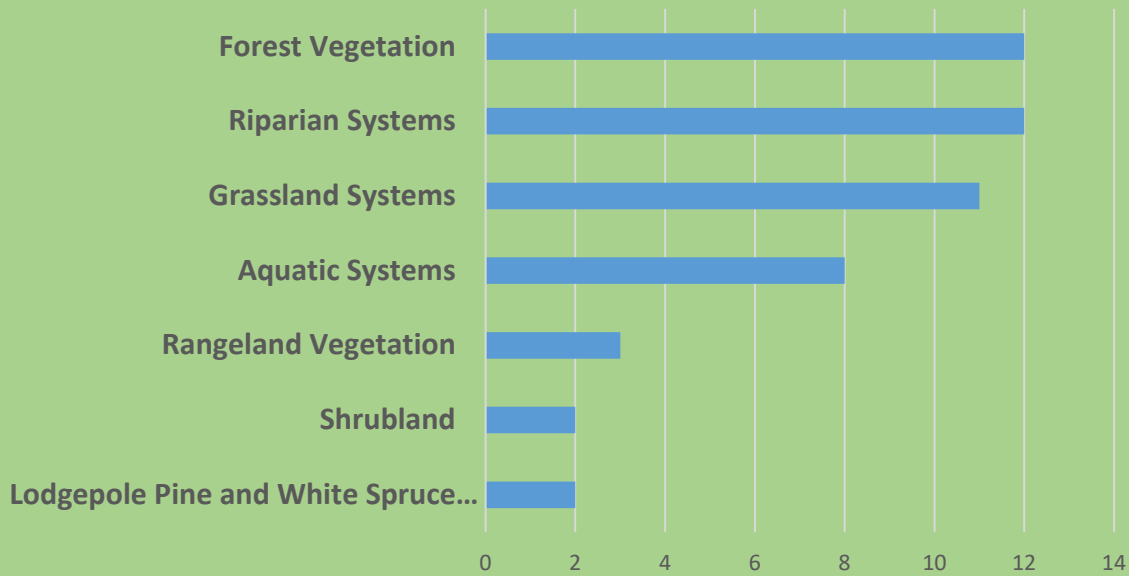| Lead Organization	Document Title	Year	Weblink
Montana Fish, Wildlife and Parks	Lost Trail Conservation Project	2019	http://fwp
Montana Fish, Wildlife and Parks	Kootenai Forestlands Conservation Project	2019	ht http://fw
Northwest Power and Conservation Council	Flathead Subbasin Assessment	2018	https://ww
Northwest Power and Conservation Council	Kootenai Subbasin Plan	2004	https://ww
Montana Fish, Wildlife and Parks	Montana Action Plan - SO 3362		
Alberta Environment and Parks	Livingston-Porcupine Hills Land Footprint Management Plan		https://op
Alberta Tourism, Parks and Recreation	Bob Creek/Black Creek	2011	https://oper
US Forest Service	Flathead National Forest Land Management Plan	2018	https://ww
US Forest Service	Kootenai National Forest Land Management Plan	2015	https://ww
US Forest Service	Lewis and Clark National Forest Plan	1986	https://ww
Montana Fish, Wildlife and Parks	Montana State Wildlife Action Plan	2015	http://fwp
US Fish and Wildlife Service	National Bison Range Comprehensive Conservation Plan	2019	https://ww
US Fish and Wildlife Service	Lost Trail Comprehensive Conservation Plan	2005	https://ww
Crown Managers Partnership	Strategic Conservation Framework 2016-2020	2016	https://stati
Roundtable on the Crown of the Continent	Adapting to Change in the Crown of the Continent	2015	http://larg
Ministry of Forests, Lands, Natural Resource Operations and Rural Dev	Action Plan		https://ww
Alberta Government	South Saskatchewan Regional Plan	2018	https://op
Glacier National Park	General Management Plan	1999	https://pa
Waterton Lakes National Park	Management Plan	2010	https://ww
Waterton Lakes National Park	State of the Park Assessment	2019	https://ww
Bureau of Land Management	Middle Rockies Rapid Ecoregional Assessment		https://lar
Confederated Salish and Kootenai Tribes	Climate Change Strategic Plan	2013	http://ww
Canadian Parks and Wilderness Society – Southern Alberta Chapter	Southern Eastern Slopes Conservation Strategy project		http://ww
Glacier National Park	Foundation Document	2016	https://ww
Castle Provincial Park and Castle Wildland Provincial Park	Castle Management Plan	2018	https://ww
Alberta Environment and Parks	Livingston-Porcupine Hills Recreation Management Plan	2017	https://op
US Forest Service	Climate change vulnerability and adaptation in the Northern Rocky Mountains Part 1	2018	https://ww
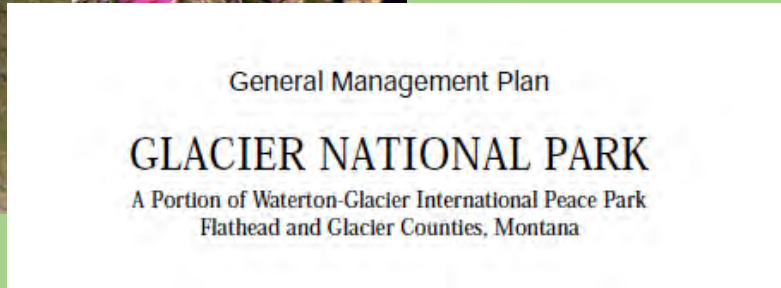
To Date:

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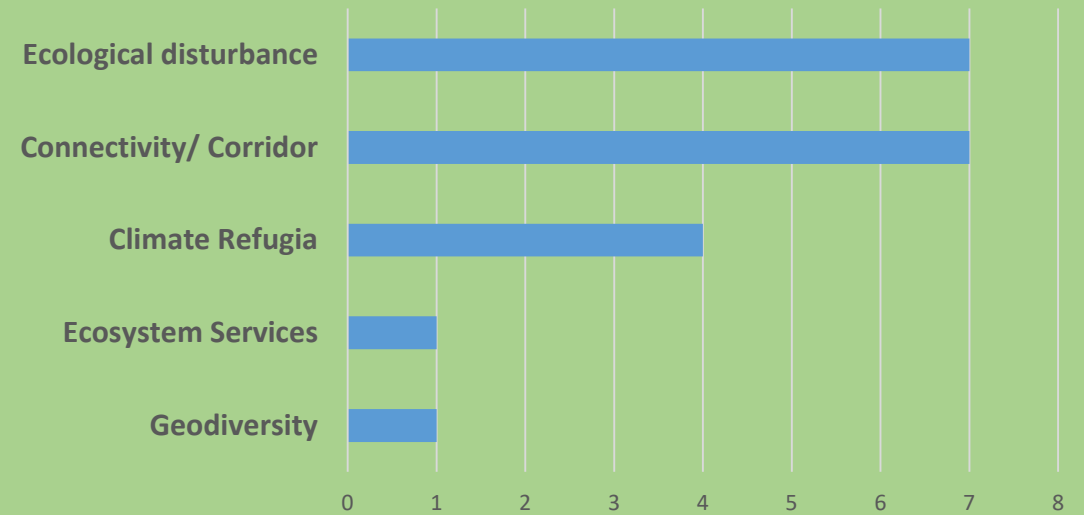Reviewed = 30

Stakeholder Priorities (preliminary)

Focal Species (30 plans reviewed)
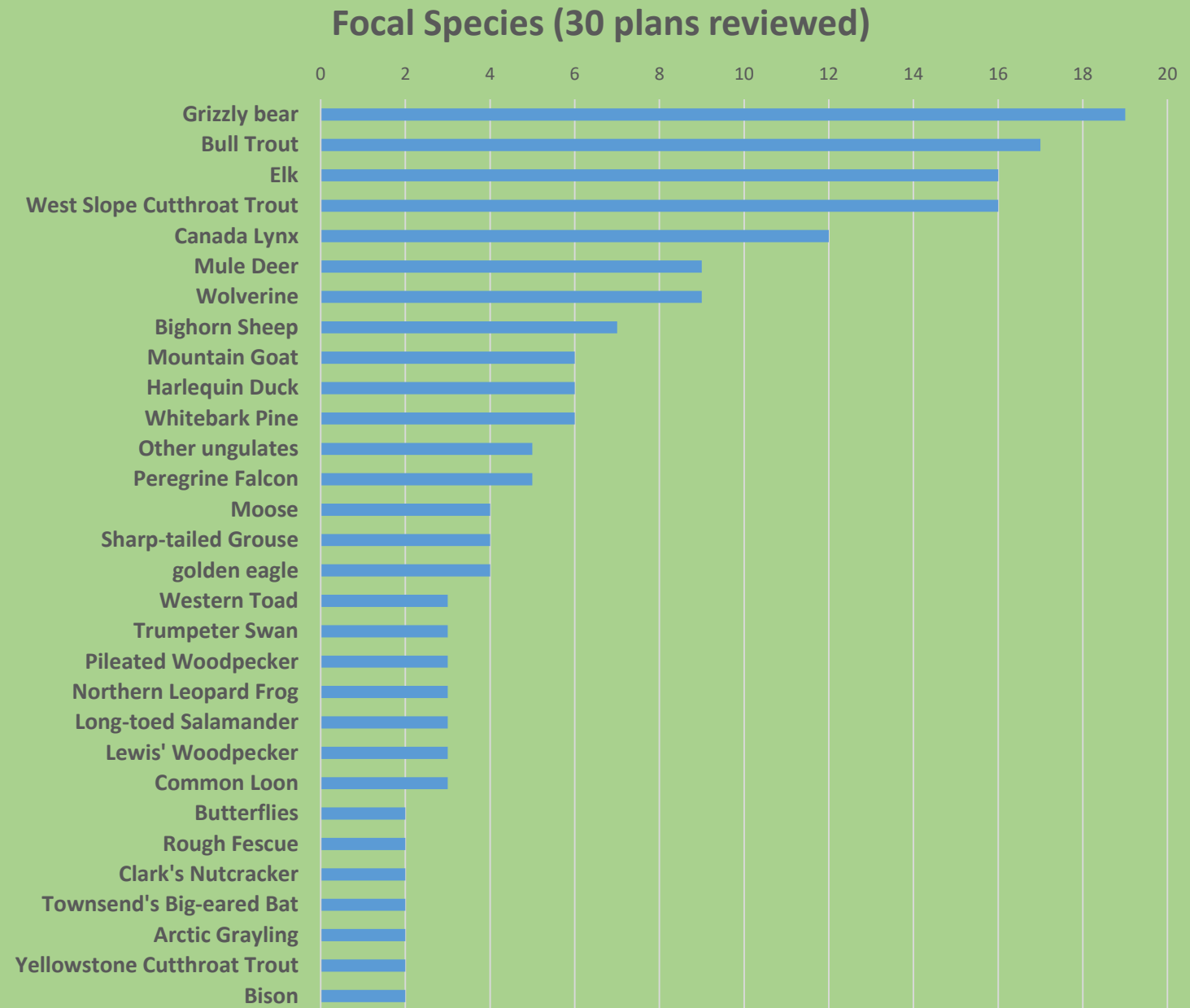
Stakeholder Priorities (preliminary)
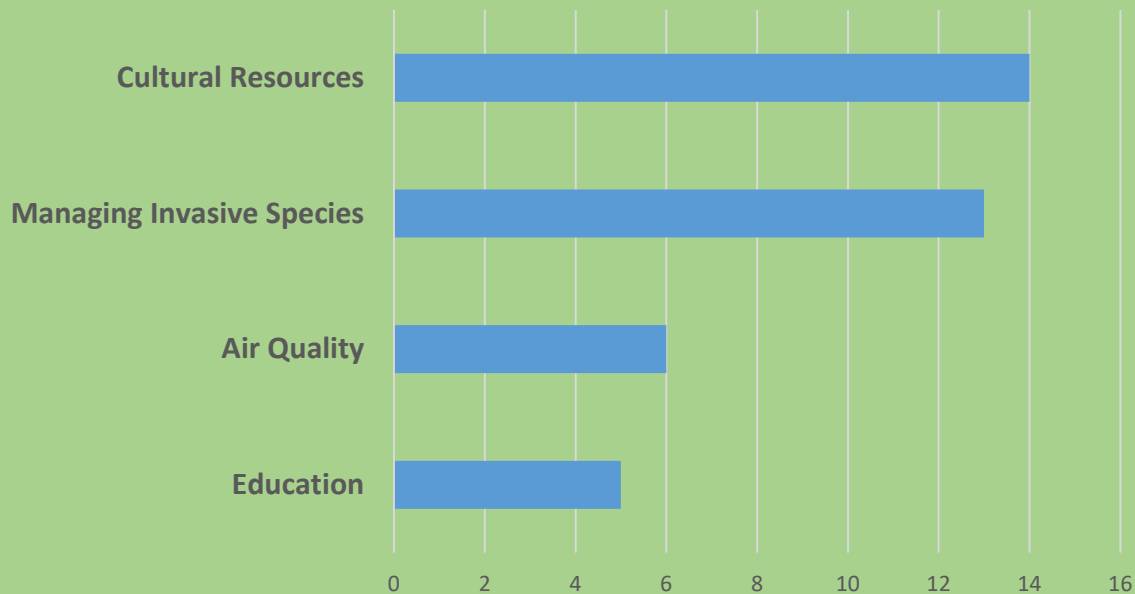
Focal Habitats (30 plans reviewed)

- Forest Vegetation — 12
- Riparian Systems — 12
- Grassland Systems — 11
- Aquatic Systems — 8
- Rangeland Vegetation — 3
- Shrubland — 2
- Lodgepole Pine and White Spruce... — 2
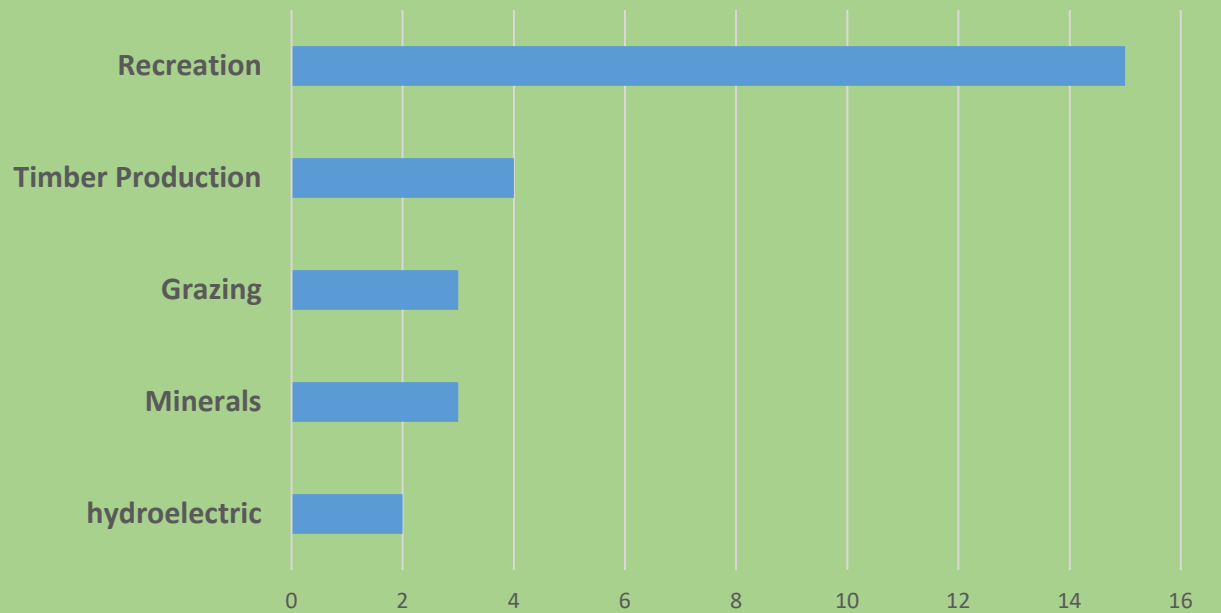
(horizontal axis: 0, 2, 4, 6, 8, 10, 12, 14)

Focal Ecological Process (30 plans reviewed)

- Ecological disturbance — 7
- Connectivity/ Corridor — 7
- Climate Refugia — 4
- Ecosystem Services — 1
- Geodiversity — 1

(horizontal axis: 0, 1, 2, 3, 4, 5, 6, 7, 8)

Shared Vision

Groves and Game (2016): It is important to include sufficient time for partners to develop a shared vision statement that **inspires and motivates stakeholders**.

Open Standards v3.0 (2017): Decide on a clear and common vision – a description of the desired state or ultimate condition that you are working to achieve. A good vision statement meets the **criteria** of being **relatively general, visionary, and brief**

Relatively General– Broadly defined to encompass all project activities
Visionary– Inspirational in outlining the desired change in the state of the targets toward which the project is working
Brief– Simple and succinct so that that all project participants can remember it

Recommended Practices (2018): The vision statement should **describe what the project area might look like in the future** but not delve into specific desired future conditions

Shared Vision

Generic fundamental objective phrasing*

1. Maximize ecological benefits
   a. Maximize persistence of native species (or communities)
      i. Maximize population size
      ii. Maximize distribution
      iii. Maximize individual quality
      iv. Maintain genetic and species diversity
   b. Minimize nonnative and invasive species (or communities)
   c. Maintain ecosystem function
2. Minimize costs
   a. Minimize capital (fixed) costs
   b. Minimize ongoing (variable) costs

3. Maximize public and private benefits (utilitarian benefits)
   a. Maximize consumptive recreational benefit
   b. Maximize nonconsumptive recreational benefit
   c. Maximize public services (e.g., energy generation, water delivery)
   d. Maximize public health and safety
   e. Maximize private economic opportunity
   f. Provide sustainable subsistence use, where appropriate
4. Facilitate cultural values and traditions (nonutilitarian benefits)
   a. Maximize aesthetic and spiritual values
   b. Minimize taking of life
   c. Treat animals in a humane manner

Linh Hoang (USFS): when we say "maximize" - maybe think about qualifying the statements to reflect that this is not in all places across the Crown but where it makes sense and reflects ecological and social realities of now and the future

*From Runge et al. 2013. Structured decision making *in* Wildlife Management and Conservation: Contemporary Principles and Practices.

Other Topics ....

Discussion, Comments, Questions …