LCD Tech Team

12/14/21
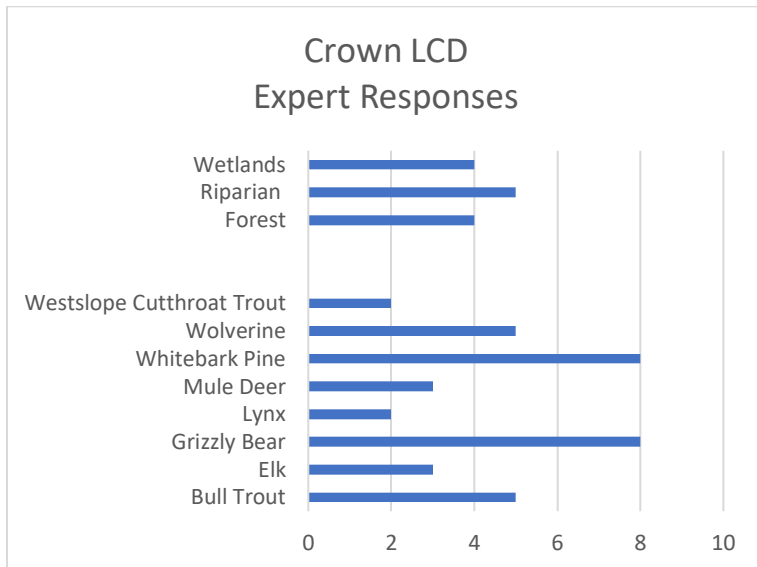
Attendees: Phil, Mary, Sean, Kathy, Trevor, Adam, Ken, Natalie

Crown LCD Technical Team – Update and Request – 14 December 2021

<u>Ecological Features:</u>

The Analysis Team has been conducting web-based Subject Matter Expert Surveys (in part because we can't travel or meet). The surveys are intended to seek guidance on our approach, knowledge base and data resources for each of the 15 ecological features the LCD analysis focuses on. If you have completed a survey, thank you. If you are interested and willing to complete a survey – let us know!

To date we're gotten 49 responses addressing 11 features:

Average completion time for the 10-question survey was about 16 minutes. About 90% of responders answered all 10 questions.

The Analysis Team is using these responses to adjust our approach following Phase 1 and set up our conceptual and analytical approaches for Phase 2 optimization modeling as well as frame the strategic design element. For example, we are modifying Phase 1 conceptual models to 'simplify' and focus on the most pressing conservation concerns:
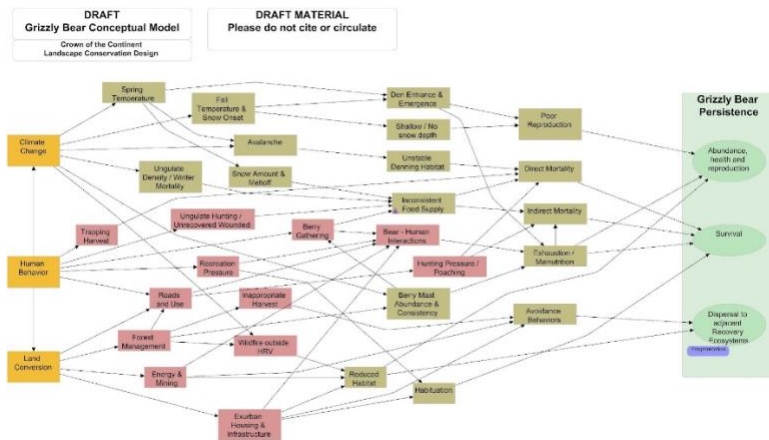
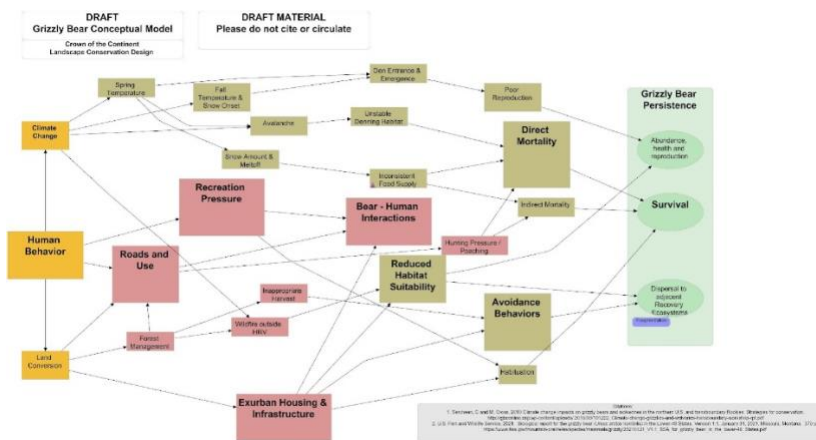Figure 1: Phase 1 Grizzly Bear conceptual conservation model

Figure 2: Phase 2 DRAFT grizzly bear conceptual conservation model.

These adjustments will further define Key Ecological Attributes and measurable indicators, essentially defining cost (or resistance) layer development for each feature.

Experts identified additional data resources that may be available. They are listed on the Crown LCD Technical Team_DataLayers and Tools worksheet highlighted in yellow.

Our first request today is for you to review the new entries in the worksheet and add information in columns B (source), E (TechTeam Comments) and possibly F (Link to Dataset).

Aim to have this task completed by Jan 10th

If you have the data and it can be emailed, send to Natalie – otherwise, we will set up another file transfer thing (ie. Box, USFWS file transfer)

Social, Cultural and Economic Features (SCE):

The SCE Team is vetting 6+ potential SCE features for including in the LCD Phase 2. The Team has given us the go-ahead on two features: Water Access and Air Quality. We are just getting started – here is our draft information coordination tables:

- Questions/initial thoughts
  - consider what level you are getting that data (ie watershed level vs. stream based) – what is the scale?
  - could wildfire be a feature of itself – a lot more than air quality implications
  - Invasive species?
  - Potentially frame through the lens of ecosystem services
- How will this be incorporated?
  - Cost layers based on key attributes – full framework is not completely built out – is being adjusted with expert input/feedback
  - Will require different types of data sources (ie. US Census)

Feature: Water Access

Justification/Description/Considerations:

Key Attributes	Measurable Indicators	Data & Sources
Water Quantity	Reservoir distribution; municipal-managed watersheds; input-output	aquifer records; distribution systems; precipitation trends; climate projections;
Water Quality	Reserve water quality; end pipe quality;	Agency (BOR, EPA) records; municipality records; well testing records
Access	Urban; ex-urban; unincorporated; distances & economics * Tribal rights & Pacts	Spatial data on population distribution; water delivery infrastructure
Public Attitudes		
Headwater Health		AB - in development WPAC Oldman watershed council - linear disturbance risk assessment -

Feature: Air Quality

Justification/Description/Considerations:

Key Attributes	Measurable Indicators	Data & Sources
Smoke Production	Fire frequency and size; fire distribution in relation to vulnerable population distribution; lifespan/mortality rates	NIFC, BAER, etc.
Prescribed Fire	Agency planning (vs. implementation?); Rx frequency, size, seasonality; Ag field burning (upstream … beyond CCE)	Agency records
Particulates	Drought trend/frequency/severity; aeolian erosion rates	Drought indices; bare ground; seasonal agricultural practices; post-fire rehab & effectiveness

The second request to the Technical Team is to begin thinking about these features and in particular the draft Key Attributes, Measurable Indicators and Data resources. Anything you would add or remove? Can you think – perhaps from a data availability perspective – if listed indicators are realistic? Might there be other indicators (or key attributes)?