PARTNERING WITH BEAVER IN RESTORATION

Utah Division of Wildlife Resources Workshop:

Sponsored by Utah AFS

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UTAH’S BEAVER MANAGEMENT PLAN

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UDWR – BEAVER MANAGEMENT PLAN

• One of most progressive plans in US
• Specifically relies on beaver as a restoration tool

UTAH BEAVER MANAGEMENT PLAN
2010 - 2020

Plan Goal
Maintain healthy, functional beaver populations in ecological balance with available habitat, human needs, and associated species.

INTRODUCTION
The purpose of the Utah Beaver Management Plan is to provide direction for management of American beaver (*Castor canadensis*) in Utah and where appropriate expand the current distribution to historic range. This purpose is in accordance with the mission statement of the Utah Division of Wildlife Resources (UDWR). The mission of UDWR is:

*To serve the people of Utah as trustee and guardian of the state’s wildlife.*
Damage Management

Objective 1:

Increase consistency in the response options (lethal and non-lethal) currently in use and increase the frequency of use of non-traditional options (e.g. beaver deceivers, live-trapping) used by UDWR, governmental and non-governmental agencies and landowners for managing beaver causing property damage through 2020.

- Awareness of non-traditional options is already increasing...
- Non-lethal options are being used throughout state
TRANSLOCATION

• In Utah, translocation is already allowed under UDWR’s Beaver Management Plan

Kent Sorenson (UDWR)

Nuisance beavers being translocated from Henry’s Fork to High Unitah’s (Courtesy of Sorenson)
UDWR BEAVER MANAGEMENT PLAN

Outreach and Education

Objective 1:

Increase awareness of and appreciation for the role of beaver in Utah’s ecosystems in 10% of stakeholders (landowners, educators, recreationalists, sportsmen, water rights holders) by 2020.

- Citizen Science can be used to help with Outreach & Education

Objective 1

Population Management

Objective 1:

Maintain reproducing beaver populations within their current distribution in appropriate habitat through 2020. (See Watershed Restoration Objective for population expansion)

Strategies:

1. Develop a statewide baseline beaver distribution map to document current status within two years after plan approval by working with UDWR regions, universities, governmental and non-governmental organizations.

- Plus, data can help with Population Management
BEAVER MONITORING APP!

- Simple enough 2nd graders can use it
- Sophisticated enough that researchers get useful data streams
- Going to launch statewide monitoring campaign with USU Extension & DWR
EVEN SECOND GRADERS GET IT

- They use the App
- They build their own dams in beaver side channels
- They learn how beaver modify the landscape
WHAT WE DID & WHAT WE WANT TO DO

- Ran BRAT for whole state
- Refine decision support elements in bespoke manner for UDWR

2. Identify zones on the map to illustrate appropriate beaver management strategies for given geographic areas, i.e. existing populations (including source populations), unoccupied historical range and areas where the potential for conflict is high.
WHAT SORNO & US ARE DOING...

• Two WRI proposed projects in Box Elder County:
  – One is in year 2 – Basin Creek
  – The other is a new one in Grouse Creek

• Monitoring responses & setting up as showcase

4. Establish at least one showcase beaver management area in each UDWR Region.
TWO REPORTS YOU PAID FOR...

RECOMMENDATIONS FOR THE UTAH BEAVER MANAGEMENT PLAN

The UUWR is one of the most progressive statewide beaver management plans (UDWR, 2014) in the country. This plan sets the bar for one more holistic and sustainable approach to beaver management. However, to note, it was not consistent throughout the plan being implemented on the ground. Higher personnel and permits were intended, despite large interest amongst a diverse group of organizations, individuals. We believe this is the case in part because although the plan to date, clear policies, goals, and strategies; the specifics of how to implement specific strategies on the ground are lacking. Actively engaging, removing beaver to parts of streambeds and the stage in which they could be removed greatly is relative new territory for UUWR staff. Demonstration projects are underway to help increase such guidance (e.g., Watershed Restoration Initiative, Sage Grouse Initiative funding in Bear River Basin, and implementation in Uinta Basin). However, we have tailored the BRAT to specifically help UUWR implement the plan. In the Macfarlane et al. (2014) report we provide detailed suggestions on how BRAT can specifically help UUWR staff implement the strategies. In our instance, we made specific recommendations to address the plan. A brief summary of bullet recommendations is provided below by topic:

- Population Management
  - Extend the Google Earth-based beaver dam database statewide used in Macfarlane et al. (2014) report to verify model performance.
  - Update the Beaver Management Plan for update from the outputs of BRAT.
  - Use “Beever Monitoring App” to track dam and other population numbers. In partnership with Utah State University’s Watershed Restoration Program, we developed an app for citizen science monitoring of beaver dam and beaver activity (http://extension.usu.edu/utah-bearwatching). This program could be expanded to provide additional support for UUWR personnel in tracking beaver populations. We could extend the app to meet UUWR’s specific needs and track the database with UUWR.
  - Develop data collection on beaver strom, other agencies.
  - Replace the “baseline map” with BRAT outputs.

- Harvest Management
  - Use BRAT to encourage the growth of beaver populations in areas with low conflict potential and high capacity to support beaver populations would potentially increase the important recreational, water supply resource.

Both available at: http://brat.joewheaton.org

THE UTAH BEAVER RESTORATION ASSESSMENT TOOL: A DECISION SUPPORT & PLANNING TOOL

FINAL REPORT TO UTAH DIVISION OF WILDLIFE RESOURCES

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OCTOBER, 2014
OUR RECOMMENDATIONS

• Population Management
  – Extend Google Earth dam census statewide
  – Use beaver monitoring app to track populations
  – Replace the ‘baseline map with BRAT output

• Harvest Management
  – Use BRAT to encourage growth of beaver populations in areas with low conflict potential and high capacity
  – Balance needs of beaver as fur-bearer and recreational resource vs. restoration agent
  – More research needed to ascertain what defines a ‘sustainable harvest’
OUR RECOMMENDATIONS

• Damage Management
  – Adopt a standard response by developing an ‘Adaptive Beaver Management Plan’

• Statewide Beaver Transplant List
  – Update the transplant list and decision support elements of BRAT to use ‘Low Hanging Fruit Restoration Zone’ and ‘Quick Return Restoration Zone’ as candidate streams for transplanting
  – Make regional prioritization/ranking more transparent or remove
OUR RECOMMENDATIONS

• Watershed Restoration
  – Use BRAT to help scope and initially identify ‘suitable habitat’ for watershed restoration by beaver

• Live Trapping Protocol
  – Implement the COR program to certify trappers
  – Develop a simple App & web-reporting system for tracking translocation activities
  – Replace habitat assessment section with BRAT and its logic
  – Language surrounding ‘source population considerations’ is unnecessarily restrictive
TAKE AWAYs

• Utah is far better positioned than many western states with its Beaver Management Plan to take advantage of beaver as a restoration tool
• Some major progress towards plan goals has been made
• Some practical hurdles to implementing policy exist
• Straight-forward solutions to overcome hurdles being considered