

WaterSMART Cooperative Watershed Management Program Phase I FY 2019

Funding Opportunity Announcement No. BOR-DO-19-F010

**Lower Bear River Watershed:
Collaborating for the Future**

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Executive summary

The Utah chapter of The Nature Conservancy has led the multiple stakeholder process of Conservation Action Planning (CAP) in the lower Bear River for over 10 years. The participating stakeholders (Team) completed a review of their decade of activities to determine whether the actions designed to meet the objectives for watershed health were effective. Few direct measures of success were found, although many activities have created a much more collaborative environment, contributed to science, and greater awareness of the values of a healthy watershed. The Team is at a crossroads of determining how to proceed into the future. The Team is reflecting on the efficacy of their efforts and anticipates using the BOR grant monies to hire a facilitator to help us use the 10-year review of the CAP, with identified threats and conditions, to assess and/or compare much of the work being done by stakeholders in the watershed. Upon completion of the assessment, we plan to share the information with other stakeholders and then determine how new stakeholders can help the CAP Team meet priorities and/or make recommendations for improvement of the CAP process.

Technical proposal and evaluation criteria (limited to 25 pages)

Background data

The Bear River is the longest river in the western hemisphere that does not drain into any ocean (Denton 2007). It terminates in Bear River Bay of Great Salt Lake 90 miles northwest of its headwaters in the alpine basins of the Uinta Mountains east of Salt Lake City, Utah. Its watershed drains 7,500 square miles of mountains and agricultural valleys—about the size of Connecticut and Rhode Island combined—into the northeast corner of the arid Great Basin (Figure 1). Its 500-mile mainstem sweeps a giant inverted U-shaped arc across three states—Utah, Wyoming, and Idaho—absorbing more than 50 significant tributaries. As an interstate river system, it is governed by the Bear River Compact among those three states.

Its flow is interrupted by at least nine major dams and channel-wide diversions. The average annual precipitation contributes nearly 4 million acre-feet to the watershed, but diversions and evapotranspiration reduce the flow to less than 1.2 million acre-feet at its terminus before entering the Bear River Migratory Bird Refuge. However, in recent years, such as 2015-2016, flows to Great Salt Lake have been well below, averaging between 500,000-800,000 acre-feet. Still, it contributes 60 percent of the inflow to Great Salt Lake (UDWRe 2004). The proposed project area is located in three partial HUC8 area within the Bear River watershed in Utah. The proposed project area is experiencing significant population growth and development pressure along with increasing water demands.

In 2003, the Wyoming chapter of The Nature Conservancy developed the Utah-Wyoming Rocky Mountain Eco-Regional Plan¹ that included a portion of the Bear River as a priority site. The Plan was based on the premise that the Bear River through Cache Valley retained relatively good size and connectivity characteristics. However, there was an awareness the watershed is largely privately owned, and development pressures were increasing.

¹The Nature Conservancy had developed several planning tools: eco-regional planning and conservation action planning to direct their conservation efforts to the highest priority sites and species. Eco-regional planning was used to identify important sites and species; and, conservation action planning (CAP) to then determine what to do at those sites.

Bear River Watershed



Figure 1. Bear River Watershed.

In 2004 Bridgerland Audubon Society and TNC and other partners assembled an early version of Conservation Action Planning (CAP) which identified goals and objectives around improving riparian, wetland and upland systems along the river stretch from Cutler Reservoir (located near Logan, Utah) to the Idaho state line.²

²The viability table was built during a series of June through December 2004 experts meetings. Participants included, Val Grant (BioResources), Bryan Dixon (Bridgerland Audubon), Melanie Spriggs (Bridgerland Audubon), Ron Ryels (Utah State University), Peter Kumbel and Joan Degiorgio (TNC).

In 2009, having identified improvement projects, there was a realization among some stakeholders that a larger Bear River effort would be useful.³

To that end and working with many partners, TNC led a one-year collaboration in 2009 to develop a river-wide, biologically driven Conservation Action Plan (CAP, a TNC planning tool) for the 500-mile Bear River through Idaho, Wyoming and Utah (Tri-state CAP).

An important new partner to the planning effort was the U.S. Fish and Wildlife Service that managed three national wildlife refuges on the river in Utah (Bear River), Idaho (Bear Lake) and Wyoming (Cokeville Meadows). The refuges saw the need to address the condition of the entire river. This was particularly the case for Bear River Migratory Bird Refuge, which sits at the downstream end of the system and can be negatively or positively affected depending on upstream conditions.

In creating a blueprint for a healthier river system through the CAP process, these partners and stakeholders in general found that all systems in the Bear River watershed were in “fair” condition⁴, with the exception of the upper and lower Bear riparian main stems, which were “poor”.

Since then, the level of implementation of the Tri-state CAP has varied in the three states. The Lower Bear in Utah is led by TNC-Utah (from Idaho border to Great Salt Lake). Efforts in Idaho are guided by PacifiCorp. In Wyoming, the TNC-Wyoming was unable to provide on-going staff support, so efforts there have largely been driven by other organizations. Coordination among the CAP groups in the three states has been intermittent.

A Lower Bear River CAP Implementation Team (focusing on the Bear River from the Idaho border to Great Salt Lake) was assembled in 2010 to implement the Tri-State CAP. Their first task was to review the Tri-State CAP and to tailor the recommendations to the lower Bear (Appendix A). Over the next 10 years the Lower Bear River CAP (LBRCAP) Team met annually, to review conservation related actions from the past year and to set goals for the next year. In January of 2019 the 2010 LBRCAP was reviewed to determine whether the actions designed to meet the objectives for water quality, riparian health, etc. were implemented. These objectives were ranked by the Team to determine the degree to which those actions resulted in a condition change (positive or negative).

³ For TNC in particular, who had worked to conserve the Great Salt Lake (GSL) for decades, was the fact that the Bear River contributes 60% of the inflow to the GSL. Largely due to this significant connection, a new strategic plan for TNC recognized the need to connect the GSL and Bear River conservation efforts.

⁴ Fair condition is defined by this CAP as “Outside the range of acceptable variation. Requires human intervention. Vulnerable to serious degradation if left unchecked.” It is an important classification because it points to where improvement can reasonably be made to shift the target to a more sustainable “good” condition.

Direct results from the 2019 LBRCAP 10-year review concluded some watershed threats identified in 2010 have decreased in: better grazing management, but others have increased: invasive species, water development, and land development. Other threats listed in 2010 either stayed the same or were not deemed relevant to the Lower Bear.

The Key Ecological Indicators (KEI) (i.e. metrics for watershed health) in the LBRCAP that improved from 2010 to 2019 included: desirable species in wetland has increased, it is felt there is more floodplain connectivity (lateral inundation); the degree of fragmentation of riparian patches within reach has decreased, native woody species and size classes increased. However, recreation has increased to a point where it is impacting riparian vegetation in new areas causing new fragmentation. The rest of the approximately 30 KEI to measure the condition of the Lower Bear River have remained the same. This has caused us to reflect whether our efforts were effective; if there is general watershed condition degradation despite efforts; and if there is an appropriate scale of effort; or if the way we are measuring improvement is adequate.

In conjunction with the review of the CAP, it is important to remember that this watershed planning effort started from scratch! In 2004 there was very little information available about the Bear's natural systems, it was not considered a conservation priority, and individuals and organizations were not working together to promote the health of the system. It should also be remembered that there was no mandate for anyone to participate, such as a threatened species listing. The Bear has always represented the place to proactively keep "common things common" before they verge on being lost, e.g., greater sage grouse. Indirect successes in the LBCAP include: there is now unprecedented collaboration on behalf of Bear River conservation; conservation on the Bear represents a pro-active effort to avoid any future species listings; the Bear River is now considered by many as a conservation priority; there is an agreed upon "blueprint" (the CAP) that directs actions of multiple partners to support the highest priority conservation actions on the Bear River; a body of research on the Bear has been developed.

In reflecting on the past 10 years of the LBRCAP we have found the initial enthusiasm and participation has fluctuated, but the participants of the LBCAP Team believe there continues to be great relevance in this process. There is no other group that has such diverse participants to exchange project information or identify collaboration activities. No other group claims authority or responsibility to oversee a comprehensive watershed planning effort, nor can the LBRCAP Team. However, this is not to say nothing is being done within the watershed, within the LBRCAP Team and outside of the team multiple agencies and planners are working with producers to improve agricultural concerns (NRCS, USDA). Utah Division of Water quality has TMDL (programs to improve water quality in the river), DNR's Water Restoration Initiative (WRI) provides funding to improve watershed conditions. Utah Division of Fire, Forest, and State Lands (FFSL) has a comprehensive management plan for the Bear River (high water mark within the river banks in Utah). The Bear River Commission regulates water distributions, newly formed Cache Water District distribute water to agricultural and municipal users. But much of the work seems to be done within 'silos' or with limited collaboration.

The LBRCAP Team is at a crossroads of determining how to proceed into the future. The reality of resources, capacity of leadership, and scale at which we recognize the problems have stimulated our thinking and we see this grant as an opportunity to focus our priorities and expand our stakeholder base.

Project location

The project location is in watershed of three HUC8 units within Utah (Figure 2). Because the LBRCAP Team has worked in this area for over 10 years, we wanted to assure our present and future stakeholders that the Team anticipates continuing conservation activities in the same watershed area.

- HUC8 are: Logan and Little Bear; Middle Bear; and Lower Bear-Malad.

Lower Bear CAP Project Area



Map Created by The Nature Conservancy in Utah (M. Cook); Projection: NAD 1983 UTM Zone 12N; Data Sources: USGS, EPA, TNC, ESRI; Date Saved: 11/6/2019 1:44:06 PM

Figure 2. Project location for Watersheds in Utah for Little Bear-Logan, Middle Bear River, and Lower Bear-Malad.

Technical project description and milestones

The goals of this project are to hire a facilitator to help us use the 10-year Review of the LBRCAP, with identified threats and conditions, to assess or compare work being done by other stakeholders. Upon completing the assessment share the information with other stakeholders. Then to determine how new stakeholders can help the LBRCAP Team meet our priorities and/or make recommendations for improvement of our CAP process. We would like to use this grant funding to bring greater focus to all the work being done in the watershed and how the LBRCAP Team can make meaningful contributions to benefit the Lower Bear River watershed.

TASKS for Grant (anticipating consultant to do all these)

1. Facilitator to conduct a 'situational awareness assessment' or the like to research work being done by stakeholders throughout watershed. General assessment layout could include:
 - a. Stakeholders could include: county, state and federal agencies who are over agricultural practices, water quality, wetlands, wildlife, recreation, forest management, and urban planning; landowners; and not for profit environmental groups.
 - b. Provide assessment of their planning documents, identified critical threats/issues, listed priorities and projects, as well as how they measure success for the project and within the watershed.
 - c. Ascertain their stakeholder involvement drivers.
 - d. Identify funding mechanisms used to achieve goals.
 - e. Ask other groups what type of watershed health outreach is occurring or how they want or intend to inform their audiences of funding or collaborative projects.
2. Facilitator compare LBRCAP to other stakeholder work and identify similarities or potential gaps between efforts.
3. Facilitate planning and outreach/education meetings with stakeholders to share findings and promote collaboration. Meetings could include:
 - a. Current CAP team
 - b. Formation of an Outreach Coordination Plan/Group
 - c. Presentation at other stakeholders meeting who have regular standing meetings
 - d. Public open house(s)
 - e. Elected/appointed officials (at least on the county level)
 - f. Local universities
 - g. Workshop or conference 'Bear River Watershed Issues Forum' or the like
4. Work with the LBRCAP Team to update the scope, goals, objectives, strategies for the LBRCAP based on feedback from meetings and agency interviews
5. Make recommendations:
 - a. Planning team make-up and dynamics
 - b. Future and more effective planning/coordination process
 - c. How to better engage the public, local officials, businesses, and other organizations
6. Creation of a summary document of findings and recommendations:
 - a. Findings from planning team, public, and elected official meetings (what do they want and what recommendations do they have?)

- b. Planning team membership and dynamics moving forward
- c. Creating a more effective planning/coordination process - what needs to happen to make this more effective and achieve meaningful success

Evaluation criteria

E.1.1. Evaluation Criterion A— Watershed Group Diversity and Geographic Scope (30 points)

Sub-criterion No. A1. Watershed Group Diversity

For Existing Watershed Groups, an explanation of the current membership of the watershed group and whether the current membership is representative of the affected stakeholders within the watershed.

Existing Stakeholders include:

PacifiCorp (hydropower)	Utah Division of Water Quality (DWQ)
Cache Water District (CWD)	Utah Division of Wildlife Resources (DWR)
Bear River Association of Governments (BRAG)	Utah Department of Agriculture (UDA)
Bear River Land Conservancy (NGO) (BRLC)	Utah Division of Fire, Forest, and State Lands (FFSL)
Bridgerland Audubon Society (NGO)	Utah Division of Water Rights (DWRi)
National Audubon Society (NGO) (NAS)	Utah Division of Water Resources (DWRe)
The Nature Conservancy Utah (NGO) (TNC)	Utah Geological Survey (UGS)
Trout Unlimited (NGO) (TU)	US Fish and Wildlife Service (USFWS)
Utah State University Water Lab, Wildlife	Natural Resources Conservation Services (NRCS)
Utah Association of Conservation Districts (UACD)	

The LBRCAP Team is diverse and most, if not all, stakeholder groups are represented although participation ebbs and flows as needs arise. Additionally, other activities in the watershed have matured in the last 10 years. These include: Two TMDL plans have been adopted and are being implemented. The Watershed Restoration Initiative (WRI) is a partnership based program in Utah to improve high priority watersheds throughout the state since 2008 has also matured but has not consistently measured watershed improvements only project successes; In 2017 the Utah Division of Fire, Forestry and State Lands developed the Bear River Comprehensive Management Plan that encompasses the river within the high water boundaries; in 2019 PacifiCorp is beginning their Cutler Dam Relicensing process and will be conducting research in their ‘area of influence’. The new (2017) Cache Water District is in the process of updating their management plan and it’s purposes include ‘planning for and facilitating the long-term conservation, development, protection, distribution, management and stabilization of water rights and water supplies for domestic, irrigation, power, manufacturing, municipal, recreation and other beneficial uses, including the natural stream environment, in a cost effective way to

meet the needs of the residents and growing population of Cache County'. In 2011, the Bear River Land Conservancy was established to ensure that 'valuable private lands with public benefits will continue to provide those benefits. Other, longer term county, state, and federal programs are still very active within the watershed.

There is communication and participant crossover between these groups, but there is not consistent evidence of coordination or large-scale watershed improvements and planning. The LBRCAP Team is trying to understand how these activities and stakeholders interact, how watershed wide strategic planning can be created or enhanced, as well as how to best maximize funding opportunities for optimum watershed outcomes.

- Details on how you plan to target affected stakeholders to ensure that your group will represent a diverse set of stakeholders within the watershed, such as engaging in outreach to include new members, or collaborating with different groups or partners.

With this grant we hope to hire a facilitator to reach out to all affected stakeholder groups within the watershed, both existing and new stakeholders, to interview and obtain planning/activity documents, determine priorities, goals/objectives, projects, and stakeholder participation within these groups (and possibly other watershed groups). Potential interview questions include, but are not limited to the following: What are the drivers for participating in these groups and how much crossover from the CAP group is there? What critical issues or threats have they identified for the watershed? How are projects funded and how do they measure success of a project? Is their group or project making a positive impact on the watershed and how are they measuring success? How do other groups prioritize projects? How do they determine the scale of a project to obtain meaningful target success? We know some landowners who are reticent to accept or discuss their business with state or federal agencies, but how widespread is this sentiment? How have other local groups worked to overcome this sentiment? Are there data gaps or stakeholders who are not participating for various reasons?

We anticipate this information will be provided to us as a report or graphic to the LBRCAP Team. The Team would subsequently like to share this information with affected stakeholders to create an opportunity for collaboration at a larger, hopefully more coordinated scale. As we receive information from stakeholders, we will assess the types of outreach appropriate for different groups. We, at least, want to reach out to individual farmers/ranchers, water distribution groups (canal companies), the US Forest Service, the WRI Program, and the Farm Bureau, as we recognize there has not been recent participation within our Team.

Sub-criterion No. A2. Geographic Scope

- Provide a map illustrating the geographic boundaries of the area in which the watershed group will work.

Please see Figures 1 and 2 for maps.

- The map should also identify the location or boundaries of the stakeholder groups within the area and indicate which stakeholders are currently involved in the group and which will be targeted through outreach. If a map of stakeholder location cannot be provided, please describe the geographic scope of the area to the best of your knowledge.

Because of the many stakeholders in the area, no map is provided. A summary of Stakeholder approximate boundaries is below.

PacifiCorp – Watershed	Utah Division of Water Quality - Watershed
Cache Water District- Cache County	Utah Division of Wildlife Resources - Watershed
Bear River Association of Governments – Utah Bear River Watershed	Utah Department of Agriculture - Watershed
Bear River Land Conservancy- Watershed	Utah Division of Fire, Forest, and State Lands - Watershed
Bridgerland Audubon Society– Cache Valley	Utah Division of Water Rights - Waterways
National Audubon Society –Watershed	Utah Division of Water Resources - Watershed
The Nature Conservancy – Watershed	Utah Geological Survey - Watershed
Trout Unlimited - Watershed	US Fish and Wildlife Service - Watershed
Utah State University Water Lab, Wildlife - Watershed	Natural Resources Conservation Services – Cache and Box Elder Counties
Utah Association of Conservation Districts - Watershed	

Other affected stakeholder boundaries: Individual farmers/ranchers – watershed; water distribution groups (canal companies) – waterways; the US Forest Service – alpine forests; the WRI Program – watershed, although strongly focused in headwaters; and the Farm Bureau – watershed.

- Describe the extent to which the planned membership of the watershed group will represent the full geographic scope of the area in which the group intends to work. If applicable, describe the extent to which the watershed group already represents the geographic scope of the area.

Participating stakeholders work throughout the geographical scope of the watershed as represented by the above table. However, the LBRCAP Team would like to understand how we can work more collaboratively and strategically within the watershed.

- Describe the efforts that you will undertake to ensure that the watershed group will target stakeholders that represent the full geographic scope of the area in which the watershed group will work.

The LBRCAP Team already represents the full geographic scope of the watershed, but we plan to interview each group, and a broader group of stakeholders to ascertain how we can collaborate more effectively. Then share this information to stimulate specific collaboration ideas. Then modify the LBRCAP to include new collaboration ideas.

E.1.2.Evaluation Criterion B — Addressing Critical Watershed Needs (35 points)

Up to **35 points** may be awarded under this criterion based on the extent of the critical issues or needs within the watershed that can be addressed by the New or Existing Watershed Group. Sub-criteria are listed in descending order of importance.

Sub-criterion No. B1. Critical Watershed Needs or Issues

Please describe in detail the critical issues or needs occurring within the watershed

Critical watershed issues, needs, or threats identified by the LBRCAP as having a high and very high impact on Bear River targets include: improper grazing and agricultural practices (erosion, non-point source pollution, fertilizer, etc.), residential development, dams and diversions, terrestrial and aquatic invasive species, loss of floodplain connectivity, and working within the parameters of 'Western Water Law' water allocation policies. Other issues include: storm and waste water inflows (all project area mainstem river is impaired by EPA standards), sedimentation due to channel instability, ground water development, recreation (Appendix A). As well as the general lack of stakeholder understanding about the hydrologic functions (return flows; groundwater-surface water recharge; etc.) and others.

Importantly, water quantity issues have far greater visibility in stakeholder concerns than do water quality or watershed health. Only the federally led Bear River Commission has jurisdiction of the entirety of Bear River where their authority is ensuring each state has their legal water allocation (<http://bearrivercommission.org/>). The watershed health, including water quantity in the project area is susceptible to significant changes from below by trans-basin (Bear River Development) and from upstream (Idaho and Wyoming) water development projects. Although none of these projects are imminent, state agencies doing their due diligence have encountered significant stakeholder opposition and concern.

Ecological issues in the river are complex and have nuances the LBRCAP presently does not express explicitly. Sampling on the main stem of the Bear below the Idaho border has indicated few, if any, native fish survive the EPA impaired river conditions during the summer (<https://utah.com/fishing/northern-utah>). As the few native fish migrate upstream, they find tributaries that run dry due to diversions for human use. Appropriately, some native fish projects have occurred in the cooler, oxygen rich tributaries of Bear River, but it is unclear whether these projects will be able to sustain fish populations if the mainstem is the only persistent body of water. Riparian areas are not continuous, and many have a dominance of invasive species (Russian Olive, tamarisk, crack willow). However, an avian study showed the riparian area near Tremonton had high visitation and species diversity. Can we collectively create a continuous riparian corridor to provide habitat for migratory birds as climate changes? Would riparian restoration address water quality or other critical issues more than other

projects? Many small watershed projects claim watershed health and water quality improvements (in private, state or federally owned properties). However, the monitoring required for many projects only identify project specific parameters with mostly inferred watershed benefits. How can we better determine cumulative effects from small 'watershed' projects? Would scaling up smaller projects into targeted sub-watershed phased projects produce observable benefits? How best can we measure cumulative project effects within a watershed or smaller area?

Finally, another critical issue is the agricultural community in the region is changing. The population in Cache and Box Elder Counties is expected to almost double by 2065 (<https://gardner.utah.edu/wp-content/uploads/Projections-Brief-Final-Updated-Feb2019.pdf>). There is an aging population of agricultural producers with few successors, and population growth rates are making selling the land an attractive alternative. Those who want to start new farms find prices out of their reach due to urban development. Other pressures include recent international trade tariffs affecting agricultural markets, conflicting messages about irrigation efficiencies, infrastructure and fertilizer cost increases, and much more uncertainty in weather patterns. How will the changes in land use impact the watershed? From examples of urban development in the nearby Wasatch Front, urban development could spread up into the headwaters of the watershed.

All these critical watershed needs and issues are accumulating without holistic planning or integrated collaboration for ecosystem services and societal concerns.

Sub-criterion No. B2. Developing Strategies to Address Critical Watershed Needs or Issues
Please describe in detail how the group plans to positively contribute to the management of the issues and needs of the watershed through the proposed activities. Only address those Task Areas that you propose to complete with this grant funding.

Some watershed critical needs are being addressed at a state agency level. For a myriad of reasons implementation of state plans has been incremental with resources limited, such that many immediate needs get the most attention (wildland fires, recreation safety, and water quality violations). The LBRCAP Team has done some of the critical thinking for holistic planning by identifying threats, key ecological indicators, and strategies and has been extremely successful in bringing many of the right people to the table for 10 years. The LBRCAP Team feels very positive in what has been accomplished during this time. However, during our 10-year review we found our efforts were not at a scale that made significant positive impacts on watershed threats or conservation. We are cognizant of our limitations and feel there is value in deeply evaluating ours and other's activities for efficacy of projects and funding. We are now asking how or if we can bring all these watershed groups together to determine how we can have cost efficient and effective projects in the watershed going into an increasingly uncertain future.

WHO, WHY and HOW: We would like to find a consultant or facilitator to research what has been done in this watershed and who has done the work. Research questions could include:

What is your key message(s) and how do you conduct outreach to your group? Critical additional questions are to ask stakeholders about their priorities, projects, how they measure success at both a project or watershed scale. What funding mechanisms are used to complete projects? Does your group feel some sort of Bear River Watershed Council or ‘commission’, or coordinating entity is needed to maximize efforts within the watershed? Are you interested in receiving the results of this research? What is the best way to communicate this type of research? Please see section “**Technical project description and milestones**” for a list of potential outreach activities they may choose from.

WHAT: A comparative report of the above activities. An analysis of redundancies or gaps between efforts.

WHEN: When and how do we communicate our findings to our stakeholders? See Task 3 for suggestions for outreach/educational meetings to communicate findings.

NEXT STEPS for LBRCAP: Facilitator to lead discussion of how the findings compare to our existing plan and activities. Determine if group could be more effective with new stakeholders or merging into another watershed program, or, update the CAP plan potentially applying positive actions of other groups, filling data or work gaps, and include an outreach plan for future collaboration with stakeholders in the watershed.

Task B -Watershed Restoration Planning: Describe the process the watershed group will use to develop a watershed restoration plan and how completing the plan will contribute to the management of the critical watershed issues and needs.

- How does the group plan to gather information regarding the critical issues and needs of the watershed (e.g., contacting government agencies, talking to stakeholders, literature research, monitoring and modeling activities)?

Please see LBRCAP threat identification from participating stakeholders. Also see Task 1 and Sub Criterion No. A1, first paragraph.

- Will the group use science to identify best practices to manage land and water resources and adapt to changes in the environment?
 - If so, how?
 - Will the group identify opportunities to resolve conflicts? If so, how?
 - Will the group complete an analysis to prioritize issues within the restoration plan?
- If the watershed group will build on previous efforts, describe these efforts and how the watershed group will expand upon them through the proposed work.

The LBRCAP Team plans to research all watershed groups science, planning, and project efforts to determine activities or processes which will facilitate more collaboration, scaled up projects, measuring watershed health and/or project effects, and share findings. The Team will update their CAP to integrate, where possible, findings to be more effective in improving the watershed. See Tasks 4 – 6.

E.1.3.Evaluation Criterion C— Implementation and Results (25 points)

Sub-criterion No. C1—Understanding of and Ability to Meet Program Requirements

Applicants should describe their plan for implementing the proposed scope of work. Please include an estimated schedule that shows the stages and duration of the proposed work.

Applicants may refer to their Technical Proposal if this information is provided there and do not need to provide duplicate information in addressing this sub-criterion if it exists elsewhere in the applicant's proposal. The schedule should include:

- Major tasks (e.g., stakeholder outreach; development of bylaws, a mission statement, and articles of incorporation; or development of a watershed restoration plan and project design)
- Milestones for each task
- Start and end dates for each task and milestone
- Costs for each task

See below schedule for activities (Figure 3). Milestones are broken out into smaller key tasks. TNC will assume lead contact with consultant and will track progress.

Timeline by Month	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	19	17	18	19	20	21	22	23	24	
RFP for consultant	█																								
1. Facilitator to conduct a 'situational awareness assessment' to research work being done by stakeholders throughout watershed			█																						
<i>Research questions/format</i>				█																					
<i>*Meetings with Stakeholders</i>					█	█	█																		
<i>**PacifiCorp, Cache Water District, BRAG</i>						█																			
<i>LBRCAP, NAS, TU</i>							█																		
<i>DEQ - TMDL, WAP, UDA, FFSL</i>								█																	
<i>DWRe, UGS, DWRI</i>									█																
<i>WRI, USFS, Farm Bureau</i>										█															
<i>NRCS, USFWS, USU, UACD</i>											█														
<i>Other stakeholders identified in interviews</i>												█													
2. Facilitator compare LBRCAP to other stakeholder work																									
<i>Draft review by CAP Team</i>																									
<i>LBRCAP compared to other activities</i>																									
3. Facilitate planning and Outreach/Education meetings																									
<i>Planning, message, and collaboration, advertising or invitations</i>																									
<i>2 to 5 meetings?</i>																									
<i>Summary of comments/concerns raised</i>																									
4. LBRCAP UPDATE																									
<i>Strategies</i>																									
<i>Metrics</i>																									
<i>Actions</i>																									
<i>Scheduled Outreach to other Watershed Groups</i>																									
5 & 6 Recommendations and Summary Document																									
<i>*Meetings include research of plans (where possible) scheduling, travel, interviews, summary notes</i>																									
<i>**Entities do not need to be in this order, just accounting for most stakeholders</i>																									

Figure 3: Project schedule by month. Bolded cells are major tasks.

Costs for each task*:

Research Watershed Activities - Consultant and TNC

<u>Tasks</u>	<u>Cost</u>
1. Facilitator to conduct a 'situational awareness assessment' to research work being done by stakeholders throughout watershed	\$ 26,980
2. Facilitator to compare LBRCAP to other stakeholder work	\$ 15,998
3. Facilitate planning and Outreach/Education meetings	\$ 41,150
4. LBRCAP UPDATE	\$ 5,776
5 & 6 Recommendations and Summary Document	<u>\$ 4,284</u>
Total Budget	\$ 94,188

*Note: the cost by task is estimated. Actual costs per task may vary. However, we will stay within the total budget.

Sub-criterion No. C2—Building on Relevant Federal, State, or Regional Planning Efforts

Please describe how the proposed activities of the watershed group will complement or meet the goals of relevant Federal, state or regional planning efforts. Such plans may include but are not limited to:

- Water conservation plans
- Drought contingency plans
- Plans that meet the criteria identified in the U.S Environmental Protection Agency's (EPA) Nonpoint Source Management Program
- Plans that meet the EPA's criteria for Watershed-Based Plans
- Or other relevant plans or planning efforts

Applicants should describe how the proposed activities of the watershed group will complement or meet the goals of applicable Federal, state or regional water plans. Reclamation suggests that groups contact Federal, state, or local agencies in your area to identify existing goals and plans relevant to the watershed group. Please reference any relevant plans, but do not include these plans as part of this application.

It is the intent of these tasks to review most/all state, federal, regional watershed planning documents for this area to identify commonalities, gaps, and opportunities for collaboration. See Tasks 1-5.

E.1.4. Evaluation Criterion D— Department of the Interior Priorities (10 points)

Up to **10 points** will be awarded based on the extent that the proposal demonstrates that the project supports the Department priorities. Please address those priorities that are applicable to your project. You may address only the parts of a priority that are applicable. It is not necessary to address priorities, or parts of priorities, that are not applicable to your project. A project will not necessarily receive more points simply because multiple priorities are addressed. The points available under this criterion will not be divided among the priorities, and projects will not be penalized if some of the priorities are not applicable. Points will be allocated based on the degree

to which the project supports one or more of the Priorities listed, and whether the connection to the priority(ies) is well supported in the proposal.

1. Creating a conservation stewardship legacy second only to Teddy Roosevelt

- a. Utilize science to identify best practices to manage land and water resources and adapt to changes in the environment;
- b. Examine land use planning processes and land use designations that govern public use and access;
- c. Revise and streamline the environmental and regulatory review process while maintaining environmental standards.
- d. Review DOI water storage, transportation, and distribution systems to identify opportunities to resolve conflicts and expand capacity;
- e. Foster relationships with conservation organizations advocating for balanced stewardship and use of public lands;
- f. Identify and implement initiatives to expand access to DOI lands for hunting and fishing;
- g. Shift the balance towards providing greater public access to public lands over restrictions to access.

We anticipate these tasks will highlight the science and best practices within the watershed by sharing data plans and practices throughout the community. We hope to highlight successful collaboration efforts as well as opportunities for shared outreach and education that govern public use and access. This watershed has shared ownership and management responsibilities between federal, state and private lands who have many similar goals and we anticipate the LBRCAP Team to foster communication among groups to avoid conflicts and expand capacity advocating for balanced stewardship.

2. Utilizing our natural resources

- a. Ensure American Energy is available to meet our security and economic needs;
- b. Ensure access to mineral resources, especially the critical and rare earth minerals needed for scientific, technological, or military applications;
- c. Refocus timber programs to embrace the entire ‘healthy forests’ lifecycle;
- d. Manage competition for grazing resources.

We anticipate these tasks will address competition for grazing resources as we share grazing best practices on public and private lands which impact watershed health.

3. Restoring trust with local communities

- a. Be a better neighbor with those closest to our resources by improving dialogue and relationships with persons and entities bordering our lands;
- b. Expand the lines of communication with Governors, state natural resource offices, Fish and Wildlife offices, water authorities, county commissioners, Tribes, and local communities.

This watershed has shared ownership between federal, state and private lands who have many similar goals and we anticipate the LBRCAP Team to ensure communication between groups to avoid conflicts and expand capacity by providing an educational event to highlight all watershed activities.

4. Striking a regulatory balance

- a. Reduce the administrative and regulatory burden imposed on U.S. industry and the public;
- b. Ensure that ESA decisions are based on strong science and thorough analysis.

The collection, syntheses, and sharing of watershed activities will highlight potential issues associated with ESA species which will provide needed analyses for ESA decisions.

Project budget

Total Project Cost Table SOURCE	AMOUNT
Costs to be reimbursed with the requested Federal funding	\$94,188
Costs to be paid by the applicant	\$ 0
Value of third-party contributions	\$ 0
TOTAL PROJECT COST	\$94,188

Budget proposal

Bear River CAP	
4/1/20-3/31/22 (or 24 months)	
Salary	\$4,393.00
Benefits	\$1,757.00
Contractual Services	\$69,600.00
Subtotal	\$75,750.00
Indirect Costs	\$18,438.00
Total Grant Amount	\$94,188.00

Budget narrative

Salary and benefits include: TNC staff to create RFP for facilitator, oversee contract and work; create/review questions, distribute to Team for review, suggest/review communications for meetings, host meetings, review reports.

Contractual services include: hiring a facilitator to complete the work described above. Costs were estimated at \$150/hour, but TNC will go out to bid for the work pursuant to the requirements of 2 CFR 200.

Indirect costs are budgeted at TNC's federally negotiated indirect cost rate. TNC will use the rate in effect at the time the expense is incurred.

Letters of project support

BRAG, Bridgerland Audubon, NAS, FWS, UGS, BRLC, DWR, FFSL



National Audubon Society
231 West 800 South, Suite E
Salt Lake City, UT 84101
385.429.9800
www.audubon.org

November 11, 2019

Bureau of Reclamation - United States Department of the Interior

**Re: The Nature Conservancy – WaterSMART Cooperative Watershed Management
Program Phase 1 Grants**

On behalf of National Audubon Society's Saline Lakes Program, I am writing to express Audubon's support for the application being submitted by The Nature Conservancy in Utah to the U.S. Bureau of Reclamation WaterSMART Cooperative Watershed Grant Program.

National Audubon Society (Audubon) has more than one million members across the country. Audubon's Western Water Initiative, with its emphasis on saline lakes in the West, like Great Salt Lake, and the Colorado River Basin, aims to identify and encourage balanced water management solutions to ensure a reliable water supply that meets the needs of people, birds and other wildlife in the West. The Bear River Watershed is one of Audubon's priority landscapes. The health of the Bear River watershed is important not only in and of itself, but to the region and also to the health of Great Salt Lake, as the Bear River is the largest single source of water flow to the lake.

For the past decade, The Nature Conservancy, through the Lower Bear River Conservation Action Plan (LBRCAP) group, has engaged with local communities, state and federal agencies, farmers, NGO's, local universities and many others to find collaborative, cohesive solutions for the Lower Bear River Watershed in northern Utah. However, alterations in the watershed such as land use changes, water and land development, water quality, invasive species, and climate change all pose increasing risks to the resources, wildlife and health of the watershed. The LBRCAP group is well-positioned in the watershed and has great potential to bring stakeholders together and advance cooperative solutions.

As a strong supporter of The Nature Conservancy's application, we urge the Bureau of Reclamation to grant the application and provide the requested funds for such an important effort that can advance collaboration and actionable outcomes for improving Bear River watershed health.

Sincerely

SSI/ Marcelle Shoop

Marcelle Shoop
Director, Saline Lakes Program

cc:
Ann Neville, Northern Mountains Regional Director, TNC
Max Malmquist, Audubon Saline Lakes Outreach Associate
Brian Tavernia, Audubon Saline Lakes Ecologist

October 30, 2019

Ann Neville
Northern Region Coordinator
The Nature Conservancy of Utah
559 East South Temple
Salt Lake City Utah 84102

Bridgerland
Audubon
Society



RE: BOR WaterSMART Grant BOR-DO-19-F010

Ms. Neville:

The Bear River watershed is finally being recognized for what it is: a source of water for growing northern Utah communities, critical habitat for wildlife, and lifeblood of Great Salt Lake. It is our responsibility to protect this watershed, but it would be impossible without collaboration between so many diverse people and stakeholders, which is precisely why Bridgerland Audubon Society supports TNC's proposal for a 209 BOR WaterSMART Cooperative Watershed Management Program Phase I Grant.

We don't have to start from scratch because the first 10 years of TNC's Conservation Action Program for the Lower Bear River coordinated more than 25 federal, state, and local agencies, and both for-profit and nonprofit groups¹ to focus attention on understanding and restoring this watershed. The cross-fertilization from the first decade of efforts led to completed projects on land, along riparian zones, and in aquatic environments that are improving the riverine system in ways unforeseen when we started.

We are all committed to this watershed, but the challenge remains. No one entity has the authority to resolve, or even understand, all of the myriad perspectives, dynamic processes, and challenges. We don't know what we don't know. And in many cases, we don't understand what we think we know.

TNC has demonstrated the efficacy of the planning efforts underlying this proposal. Unquantifiable are the thousands of hours and dollars triggered so far by the CAP and how the CAP has catalyzed efforts that would not have occurred otherwise.

Further success requires a more concerted, focused, and organized effort to bring all of the partners together. TNC has the experience, capability, and commitment to make this happen and, with financial support from this grant and the matching resources demonstrated by prior participation, we believe we have a unique opportunity to leave future generations with a watershed that functions as it is supposed to.

Please let me know how we can continue our support.

Sincerely,

Hilary C. F. Shughart

Hilary C. F. Shughart
President

¹ Including: Natural Resources Conservation Service, Utah Association of Conservation Districts, U.S. Fish and Wildlife Service, Division of Water Quality, Forestry, Fire and State Lands, Division of Agriculture and Food, Division of Wildlife Resources, Division of Water Resources, Utah Geological Survey, Bear River Association of Governments, Cache County, Box Elder County, Cache Water District, Logan City, Utah State University, USU Water Laboratory, The Nature Conservancy, National Audubon Society, Bridgerland Audubon Society, Bear River Land Conservancy, Trout Unlimited, Utah Rivers Council, Utah Farm Bureau, PacifiCorp and Rocky Mountain Power, Compass Minerals, individual producers and ranchers.



Bear River Land Conservancy
PO Box 4565
Logan, UT 84323-4565

November 12, 2019

To Whom it May Concern:

Our organization would like to submit this letter of support for the WaterSMART grant application being submitted by The Nature Conservancy (TNC) to the U.S. Bureau of Reclamation.

It is the mission of our organization to improve and conserve the water and land resources of the Bear River Watershed, through its course in Rich, Box Elder, and Cache Counties in the state of Utah. A critical component of this work has been the creation of a TNC facilitated Critical Action Plan (CAP) which outlines the conditions, threats, and best management practices to maintain or improve current conditions in the system.

For nearly a decade TNC has been the driving force behind this effort. This work has included creating the initial plan, organization meetings, bringing together diverse stakeholders, and tracking the work and progress of the effort.

These efforts have reached a critical point where in order for the goals of the CAP to be further understood and implemented additional resources are necessary. This will ensure that the initiatives started nearly 10 years ago is successful. It is for this reason that we support the scope of work as proposed by this application

Sincerely,

A handwritten signature in black ink, appearing to read "Casey Snider", written in a cursive style.

Casey Snider
Executive Director



GARY R. HERBERT
Governor

SPENCER J. COX
Lieutenant Governor

State of Utah

DEPARTMENT OF NATURAL RESOURCES

BRIAN C. STEED
Executive Director

Division of Forestry, Fire and State Lands

BRIAN L. COTTAM
Division Director / State Forester

November 6, 2019

Ann Neville
Northern Mountains Regional Director
The Nature Conservancy
559 East South Temple
Salt Lake City, UT 84102

RE: WaterSMART Cooperative Watershed Management Grant Application

Dear Ann,

I am writing to express support for The Nature Conservancy's application for the U.S. Bureau of Reclamation WaterSMART Cooperative Watershed Management Program Phase 1 Grant.

The Utah Division of Forestry, Fire and State Lands (FFSL) promotes Utah's healthy forests, rangelands, and watersheds by providing forestry assistance, managing wildland fire, and administering the Public Trust on state sovereign lands.

FFSL manages the bed of the lower Bear River as state sovereign land to ensure protection of Public Trust values of navigation, fish and wildlife habitat, aquatic beauty, public recreation and water quality. While FFSL has direct management authority for these lands along the main channel of the river, we fully recognize that the attributes and condition of the surrounding watershed are often the primary drivers impacting the Public Trust values we aim to protect.

FFSL staff have been active participants in The Nature Conservancy's Conservation Action Planning efforts along the Bear River for nearly a decade. This has been an invaluable venue for us to interface and collaborate with other state and federal agencies, local government, non-governmental organizations, and private landowners. As growth and development continue to place additional pressure on resources in the watershed, it is imperative that we continue to look for ways to be more effective working together to accomplish our common objectives.

We fully support The Nature Conservancy's application for this grant and look forward to collaborating throughout the process.

Sincerely,

Brian L. Cottam
Division Director





U.S. FISH & WILDLIFE SERVICE
Partners for Fish and Wildlife Program
2155 West Forest St.
Brigham City, UT 84302
Phone (435) 734-6434
Fax (435) 723-8873



November 1, 2019

Ann Neville
Northern Mountains Regional Director
The Nature Conservancy
559 East South Temple
Salt Lake City, UT 84102

Dear Ann:

I am writing this letter of support for the WaterSMART grant application to the U.S. Bureau of Reclamation by The Nature Conservancy (TNC).

Starting in 2009 the U.S. Fish and Wildlife Service's Partners for Fish and Wildlife Program began working with TNC and other stakeholders to improve, restore, and preserve riparian, wetland and upland habitat in an area referred to as the "Lower Bear River". The Lower Bear River area was the mainstem and tributaries of the Bear River in Utah, within Cache and Box Elder Counties. Goals and objectives for the Lower Bear River were outlined in a Conservation Action Plan (CAP) that identified current conditions, threats and best management practices to maintain or improve current conditions.

For the past 10 years TNC has been the entity responsible for organizing the development of the plan, coordinating meetings to discuss actions completed within the Lower Bear River area, managing the meeting notes, and sending out yearly reports to the entities making up the group. The Nature Conservancy has also taken on the responsibility of gathering people for the review and revision of the CAP in 2019 so a new plan can be developed.

Through the implementation of the first CAP and the development of the new CAP it became evident that the coordination and communication amongst groups working within this area and participating in the CAP effort was an important outcome. The amount of time that TNC has donated in the previous 10 years to manage this group has become unsustainable. It is apparent that this effort has had positive impacts on habitat conditions and improvements to water quality as well as better planning efforts by communities and counties to decrease the future impacts to the Bear River. The benefits to maintain and improve this effort are have become to great to be accomplished as another duty to be completed by TNC in addition to the other conservation work that they

are accomplishing and efforts would be more effective if a person could be hired to manage and organize this effort.

I believe that a facilitator dedicated to this effort would allow the group to continue improving conditions within the Lower Bear River. A person dedicated to this effort would be able to spend the time needed to invigorate and expand the efforts of this group. Based upon the accomplishments of the first CAP process I believe that the second process will result in more improvements to habitat conditions, water quality and proper planning for the projected population growth in this geographical area.

The U.S. Fish and Wildlife Service's Partners for Fish and Wildlife Program fully supports the work outlined in the grant application.

Sincerely,

A handwritten signature in blue ink that reads "Karl Fleming". The signature is written in a cursive style with a large, stylized "K" and "F".

Karl Fleming
Utah State Coordinator, Partners for Fish and Wildlife Program
karl_fleming@fws.gov



10/23/2019

Ann Neville
Northern Mountains Regional Director
The Nature Conservancy
559 East South Temple
Salt Lake City, UT 84102

EXECUTIVE DIRECTOR
Roger C. Jones

BOX ELDER COUNTY
Roger Fridal
Mayor of Tremonton
Jeff Hadfield
County Commissioner
Jeff Scott
County Commissioner
Stan Summers
County Commissioner
Tyler Vincent
Mayor of Brigham City

CACHE COUNTY
Paul Borup
County Council Member
Craig Buttars
County Executive
Holly Daines
Mayor of Logan
Jeff Young
Mayor of Richmond
Karl Ward
County Council Member

RICH COUNTY
William (Bill) Cox
County Commissioner
Mike Leonhardt
Mayor of Garden City
Scott Sabey
Mayor of Woodruff
Norman (Norm) Weston
County Commissioner
Simeon (Sim) Weston
County Commissioner

Dear Ann,

I am writing this letter of support regarding The Nature Conservancy's application for the U.S. Bureau of Reclamation WaterSMART Cooperative Watershed Management Program Phase 1 Grants.

As you know, since 2010, The Nature Conservancy has been working with local stakeholders in Box Elder and Cache Counties to help determine the best way to plan for, preserve, and enhance sensitive lands in the Lower Bear River Watershed. Local communities, state and federal agencies, local land owners, farmers and ranchers, conservationists, local universities, and many others have been anxiously engaged in finding better ways to improve watershed resources that better support wildlife and improve water quality and quantity.

During that planning process, there has been some great success in regards to improving coordination between agencies and organizations, specifically related to grazing management. However, issues surrounding invasive species, water development, and land development are prevalent and are only increasing the risk to sensitive landscapes, water resources, and wildlife. There is still much more that we can do.

As a coordinating body and technical assistance agency to local governments in both counties, Bear River Association of Governments (BRAG) is in a unique position to see how potential future community growth and development, and various land uses and activities, specifically along river and stream corridors, can have negative impacts on those sensitive resources.

As such, we feel it is imperative for the Lower Bear River CAP team to take a fresh look at how we can be more effective as a team, and work better with the public, local officials, state and federal agencies, local universities, and others at preserving and enhancing our sensitive landscapes to benefit wildlife and local residents.

We fully support The Nature Conservancy's application for this grant. Please feel free to contact me with question at 435-752-7242 or zacc@brag.utah.gov.

Sincerely,

Zac Covington
Sr. Regional Planner



GARY R. HERBERT
Governor

SPENCER J. COX
Lieutenant Governor

State of Utah

DEPARTMENT OF NATURAL RESOURCES

BRIAN C. STEED
Executive Director

Division of Wildlife Resources

MICHAL D. FOWLKS
Division Director

November 12, 2019

Ms. Ann Neville
Northern Mountains Regional Director
The Nature Conservancy
559 E. South Temple
Salt Lake City, UT 84102

Dear Ann:

The Utah Division of Wildlife Resources (UDWR) has appreciated the opportunity to work with The Nature Conservancy (TNC) and other partners over the last 10-15 years on the Lower Bear River Conservation Action Plan (CAP) to improve, protect, and enhance aquatic and riparian habitats on the lower Bear River in northern Utah.

As you are aware, development and other threats continue to increase in northern Utah with a commensurate increase in threats and impacts to wetland and stream habitats. The stakeholders on the CAP Team have worked collaboratively to identify conservation priorities/habitats and threats to the lower Bear River watershed. By working synergistically, the Team has been able to educate numerous landowners, local municipalities, and state and federal agencies. As attention has been turned to the Bear River, additional research on habitat conditions and habitat restoration activities have been undertaken. However, after 10 years of implementing the CAP process, many of the stakeholders believe it is prudent to take a fresh look at the lower Bear River system and identify additional ways the Team can continue to be effective to protect and enhance habitats. To that end, the BOR WaterSMART grant would assist the Team in undertaking an in-depth review of what has worked in the past, and help direct a path for the future.

UDWR supports the Lower Bear River CAP process and TNC to continue to facilitate planning efforts on the Lower Bear River CAP. We look forward to continue working with you and other partners in this effort. Please contact Scott Walker (801-476-2776) or Pam Kramer (801-476-2775) of my staff if you need additional information.

Sincerely,

Justin Dolling
Northern Region Supervisor





GARY R. HERBERT
Governor

SPENCER J. COX
Lieutenant Governor

State of Utah

DEPARTMENT OF NATURAL RESOURCES

BRIAN STEED

Executive Director

Utah Geological Survey

R. WILLIAM KEACH, II

State Geologist/Division Director

November 8, 2019

To whom it may concern:

I am writing this letter to express my support for The Nature Conservancy's application for a U.S. Bureau of Reclamation's WatersSMART Cooperative Watershed Management Program grant. The proposed project will help create a plan for the next 10 years of collaborative conservation in the Lower Bear Watershed.

The Lower Bear River is a critical watershed, with the Bear River providing the majority of the surface water to Great Salt Lake and feeding extensive wetland complexes on the edge of the lake, supporting large populations of breeding and migrating birds and important economic activities such as hunting and brine shrimp fishing. The watershed faces significant challenges, including impaired waterbodies, increasing development pressure, and not enough water to meet anthropogenic and aquatic needs. The Nature Conservancy has been involved in the Lower Bear River since at least 2004 and has done a great job facilitating a working group of stakeholders to share expertise and find common ground for solutions to protect the land and water in the watershed. The proposed project will allow The Nature Conservancy to expand upon this effort by reviewing progress to date and creating recommendations for the next stage of the conservation effort.

The Utah Geological Survey has been involved with the Lower Bear River working group because of the work we have done with wetland mapping and assessment in the watershed. Our focus is on data provisioning rather than on-the-ground action, and we therefore welcome the opportunity to collaborate with working group members to share what we have learned and to learn more about data needs. We look forward to continuing to work with the Lower Bear River working group and with the proposed facilitator to help make sure that the work we do can lead to better conservation in the watershed.

The Nature Conservancy has done an impressive job of bringing together a diversity of private, local, state, and federal stakeholders to focus on issues in the watershed. This type of collaboration is imperative to meet the challenges we face in the watershed and across the state. I look forward to working with The Nature Conservancy on the proposed project and hope it helps set an example for the rest of the state.

Sincerely

Diane Menuz
State Wetlands Coordinator





Protecting nature. Preserving life.

To: Dave Livermore, Director, Utah Business Unit
Cc: Brian Burke, Senior Attorney
Cathy Howell, Senior Attorney
From: Laura Hubbard, Rocky Mountain Division Director *LH*
Date: May 18, 2018

DELEGATION OF AUTHORITY

In my capacity as Division Director, Rocky Mountain Division, I delegate to you in your capacity as Director, Utah Business Unit authority to approve real estate and non-real estate contracts and other agreements and transactions ("transactions") that relate to the responsibilities of your position, effective the date of this memorandum and subject to the following conditions:

1. Scope. You may approve:
 - a. all transactions described in the delegation to The Nature Conservancy's President by the Board of Directors of The Nature Conservancy (Presidential Delegation) as set forth in the Board of Directors resolution dated June 24, 2016 (a copy of which is attached) that do not exceed \$1,000,000, and
 - b. commitment of up to \$100,000 for an option to purchase, or as a down payment for a contract or other agreement to purchase land, for real estate transactions that exceed the authority delegated in paragraph 1.a.
2. Policies and Procedures. This delegation of authority is subject to compliance with TNC's policies and procedures in effect from time to time.
3. Sub-delegation. Any authority delegated to you may be further delegated by you to any staff who report to you subject to the following conditions:
 - a. You may delegate up to \$100,000 of authority to Business Unit staff. Any other delegations must be approved by me and the North America Region Director.
 - b. Each further delegation must be in writing, must include the Approval Requirements in paragraph 5 below, and, unless you follow the format of a standard document provided by the Legal Department, must be reviewed and approved by a TNC attorney. Copies of any delegation must be kept by you and the individual granted the authority. Copies of all delegations must be provided to the responsible TNC attorney.

c. You must copy me on any delegation of authority in excess of \$50,000.

4. Ministerial Duties. Any authority hereunder and delegated hereunder, unless otherwise stated, shall also include the authority to delegate to any person the ministerial duties of implementing any action taken pursuant to this delegation, including the execution, delivery, or acceptance of legal documents. The ministerial delegation should be documented in an appropriate manner.

5. Approval Requirements. This delegation of authority shall be subject to (a) "Board Approval Requirements" contained in the Board's delegation of authority to The Nature Conservancy's President, (b) other guidelines established from time to time by the Board or any committee thereof, (c) the Conservation Project Review and Approval Process memo dated May 10, 2018 and any supplements or amendments thereto, and (d) any other applicable guidelines and procedures that may be established from time to time.

6. Legal Review. Project approval does not imply or convey approval of any legal document involved in completion of the project. All legal documents which create legal obligations regarding real estate transactions without further Conservancy action (e.g., purchase agreements, deeds, leases, rights of first refusal, easements, management agreements or management leases) must be approved by a Conservancy attorney before execution regardless of prior project approval. Agreements that do not involve real estate transactions may require legal review under applicable standard operating procedures.

7. Rescission. The above authority delegated to you rescinds and supersedes any prior delegation of authority. This delegation of authority is only to you in your capacity as Business Unit Director. It will automatically rescind in the event you cease to hold this position. I reserve the right to rescind this delegation of authority at any time.

Please refer any questions you may have concerning your authority or interpretation of this delegation directly to your assigned TNC attorney.

LEGAL
Delegation of Authority from the Board of
Directors

PURPOSE:

To provide the Board of Directors ultimate responsibility for all business of the Conservancy.

POLICY:

All non-real estate and real estate project and loan authority vests in the Board of Directors, with certain levels of such authority delegated to the staff (see attached delegation document).

In situations where a delegation of authority does not suffice to meet a host country's legal requirements, staff must work with the Worldwide Office Legal Function to ensure that the delegation is enforceable.

ORIGIN:

Approved by the Board of Directors March 15, 1996. Revised: September 24, 1998, February 5, 1999, June 7, 2002, June 10, 2005, and October 21, 2006. Reference Section Updated: October 2017.

REFERENCES, RESOURCES, and EXPLANATORY NOTES:

For authorization details, see the Presidential Delegation Authority (attached below), which is part of and incorporated in this Policy.

For information about the Delegation of Authority database, templates, sources of authority, real estate project authority levels, and evidence of authority outside of the United States, see the Legal Connect site, [Delegation of Authority](#).

Other Relevant Policies and Procedures Not Referenced in Text

For more information on non-real estate contracts and their approval, see the ["Agreements- Contracts-Private Funds"](#) SOP.

Other Resources

For information on what determines the level of authority required to approve assists with other organizations, see [Authority for Assists Memo from Phil Tabas](#), dated March 19, 2008.

RESPONSIBLE PARTY:

General Counsel

Presidential Delegation Authority

**AMENDED AND RESTATED PRESIDENTIAL
DELEGATION AUTHORITY**

*As Amended June 24,
2016*

Real Estate and Project Loan Authority

The President and CEO (the "President") is hereby authorized on behalf of the Conservancy, or any subsidiary corporation of the Conservancy currently established or to be established in the future, to:

1. Acquire and/or transfer any real estate in any transaction provided that the purchase price does not exceed twenty-five million dollars (\$25,000,000).
2. Authorize the use of Conservancy funds for any real estate transaction authorized pursuant to this delegation.
3. Authorize the borrowing of money from any Conservancy line of credit, or any other lending sources including other banks, insurance companies, credit unions, corporations, foundations, or private individuals for any real estate transaction authorized pursuant to this delegation.
4. Authorize fund raising for any real estate transaction.
5. Spend or commit up to one hundred-thousand dollars (\$100,000) as consideration for an option to purchase, or as a down payment for a contract or other agreement to purchase land, for real estate transactions not authorized under this delegation.
6. Authorize loans or grants to other conservation organizations for land protection activities provided that such loans or grants will not exceed twenty-five million dollars (\$25,000,000).
7. Authorize additional actions on Board approved real estate transactions, provided that such actions are taken in accordance with the "Board Approval Requirements" section of this delegation, all applicable laws and all Conservancy policies and standard operating procedures and provided that such actions do not materially increase the legal, reputational or financial risk to the Conservancy and do not cause the transaction to exceed the delegation contained herein.
8. Execute and deliver documents including, but not limited to, deeds, conservation easements, contracts, agreements, leases, licenses, assignments, options, mortgages, deeds of trust, notes, loan agreements, and affidavits, and take such further actions as the President may consider appropriate to affect any action taken pursuant to this delegation.

This authority can be delegated by the President to any other staff of the Conservancy.

Any authority hereunder and delegated hereunder, unless otherwise stated, will also include the authority to delegate to any person the ministerial duties of implementing any action taken pursuant to this delegation, including the execution, delivery, or acceptance of legal documents.

When used in this delegation, the term "real estate" will include, but not be limited to, fee title, any undivided or other partial interest, remainder interest, conservation easement, land dedication, lease, water right, mineral right, timber right, development right, restrictive covenant, or other similar real

estate interests in land or structures.

Non-Real Estate Project and Loan Authority

Subject to the "Board Approval Requirements" of this delegation, the President is hereby authorized on behalf of the Conservancy, or any subsidiary corporation of the Conservancy currently established or to be established in the future, to:

1. Enter into any non-real estate contract or other agreement or transaction provided that the contract does not exceed twenty-five million dollars (\$25,000,000).
2. Authorize fund raising for any non-real estate transaction.
3. Authorize loans or grants to other conservation organizations for conservation activities provided that such loans or grants will not exceed twenty-five million dollars (\$25,000,000).
4. Authorize additional actions on Board approved transactions, provided that such actions are taken in accordance with the "Board Approval Requirements" section of this delegation, all applicable laws and all Conservancy policies and standard operating procedures and provided that such actions do not materially increase the legal reputational or financial risk to the Conservancy and do not cause the transaction to exceed the delegation contained herein.
5. Authorize the use of Conservancy funds for any non-real estate contract or agreement authorized pursuant to this delegation.
6. Authorize the borrowing of money from any Conservancy line of credit, or any other lending sources including other banks, insurance companies, credit unions, corporations, foundations, or private individuals for any contract or agreement authorized pursuant to this delegation.

This authority can be delegated by the President to any other staff of the Conservancy.

Any authority hereunder and delegated hereunder, unless otherwise stated, will also include the authority to delegate to any person the ministerial duties of implementing any action taken pursuant to this delegation, including the execution, delivery, or acceptance of legal documents.

Board Approval Requirements

The entering into real estate or non-real estate contracts or other agreements or transactions (each, a "transaction") for which authority is not delegated to the President herein requires approval of the Board pursuant to procedures, policies and processes which may be established by the Board.

In addition, if: (a) the transaction creates material financial reputational and/or legal risk under the guidelines which shall be separately established by the Board (or by a Committee of the Board with delegated authority to act on behalf of the Board in such instance); or (b) in the reasonable judgment of the President a transaction which, even if within the authority delegated herein, creates material financial reputational and/or legal risk to the Conservancy, *such transaction shall be brought by the President to the Board for review and approval pursuant to procedures, policies and processes which may be established by the Board. The President shall put in place the necessary management safeguards to assist him or her in determining the existence of material financial, legal or reputational risk for purposes of determining the need for Board approval.*

This authority, as implemented, hereby supersedes any prior Presidential Authority resolutions approved by the Board of Directors. Interpretations of this document will be the responsibility of, and at the direction of, the General Counsel.

Kim L. Doherty

From: Dave Livermore
Sent: Thursday, November 7, 2019 3:10 PM
To: Kim L. Doherty
Cc: Elizabeth Kitchens; Ann Neville
Subject: Re: BOR WaterSmart Proposal - Lower Bear River Watershed: Collaborating for the Future

Hi Kim. Thanks for this description. By way of this email, I delegate my authority to Kim Doherty to execute all documents to advance this project. Dave Livermore

Sent from my iPhone

> On Nov 7, 2019, at 12:24 PM, Kim L. Doherty <Kim_Doherty@tnc.org> wrote:

>

> Hi Dave and Elizabeth,

>

> As you know, Ann is working on a proposal for federal funding for the Lower Bear River Watershed. I have attached the latest draft of the proposal, but Ann is still working on revising it. I am also attaching the federal forms that I will need to submit on Grants.gov. Because the proposal must be submitted on the website, my signature will automatically be added to the documents. In order to complete the submission, I will need delegation of authority from Dave do so.

>

> Dave – if this proposal meets with your approval, can you please give me delegation of authority to submit the proposal (once finalized) on grants.gov?

>

> Note: Ann is on vacation, but will be back on Tuesday, which is when we plan to complete our submission.

>

> Let me know if you have any questions.

>

> Thanks

>

> Kim

>

> The mission of The Nature Conservancy is to conserve the lands and waters on which all life depends.

>

> _____
> Kim Doherty

> Senior Grants Specialist

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> At TNC we often work across different time zones and during flexible hours. While it suits me to email now, unless there is a clear statement in the above email that there is an urgency to the matter, I don't need or expect a response from you outside your normal work hours.

>

Appendix A – Lower Bear River Conservation Action Plan – Target Viability, Threats, Objectives and Strategies

Assessment of Target Viability											
Lower Bear River CAP				Indicator Ratings							
				Double-click opens entry form				Bold = Current			
Conservation Targets	Category	Key Attribute	Indicator	Poor	Fair	Good	Very Good	2019 Rating	Desired Rating	Date for Desired Rating	2019 Notes
Lower Bear Wetlands (wetlands around oxbows, adjacent to BR)	Landscape Context	Fluvial geomorphology	Channel adjustment	Major amount of channel adjustment beyond natural conditions (variability)	Moderate amount of channel adjustment beyond natural conditions (variability)	Minimal amount of channel adjustment beyond natural conditions (variability)	Channel adjustment within natural conditions (variability)	Good	Very Good	Apr-29	Main stem really hasn't changed since 2009.
		Hydrology	Hydroperiod	Severe deviation from natural hydroperiod	Moderate deviation from natural hydroperiod	Minimal deviation from natural hydroperiod	Natural hydroperiod where inundation and drying or drawdown not affected by altered hydrology	Poor	Fair	Apr-29	Very difficult to change because flow is driven by water rights and diversions
		Hydrology	Water source	Natural water source is completely diverted, and/or comprised of industrial, urban or road runoff; major effects of altered hydrology (concrete lined ditches, feed lot, urban development).	Water diversions is < 50% natural runoff, precipitation or groundwater and is primarily non-point discharge and/or is from regulated releases from a dam or direct irrigation.	Water source is >50% natural runoff, precipitation or groundwater but also includes non-point sources; small effects of altered hydrology (dirt roads, levees, etc.)	Water source is from natural runoff and precipitation or groundwater, no point sources; no hydrologic alterations affecting flow	Fair	Good	Apr-29	Situation hasn't changed since 2009

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	Condition	Plant community	Percent cover that is native versus non-native	<50% of species you would expect to naturally occur for that wetland type, moderate or high percentage of introduced species, moderate or high percentage invasive native or non-native species	50-74% of species you would expect to naturally occur for that wetland type, moderate percentage of introduced species, and/or invasive native or non-native species	75-89% of species you would expect to naturally occur for that wetland type	90-100% of species you would expect to naturally occur for that wetland type	Poor	Fair	Apr-29	2019 rank is actually worse than 2009 despite increased treatment efforts. Now there are more weedy species.
	Water quality	Dissolved oxygen, N, P, Temp, conductivity, pH, turbidity, total dissolved solids	Highly altered from expected values - not suitable for wetlands	Altered from expected values and may be harmful to wetlands	Altered from expected values, but not harmful to wetlands	Within range of expected values	Poor	Good	Apr-29	Since 2009 reach below Cutler has improved because of practices and projects. But still poor.	
	Wetland function	Buffer quality	Bare ground, highly compacted or disturbed soils, very intense vegetation manipulation	Substantial levels of non-desirable vegetation, moderate degree of soil disturbance, moderate vegetation manipulation	Intermediate level of non-desirable vegetation, mostly undisturbed soils, little or no vegetation manipulation	Dominated by native or desirable vegetation, undisturbed soils, little or no vegetation manipulation	Good	Good	Apr-29	2019 changed from Fair to Good. Determined desirable species more realistic than 'native' so changed wording in rank.	
	Wetland function	Buffer size	0-24% of wetland has buffer; average buffer width is 0-49'	25-49% of wetland has buffer; average buffer width is 50-99'	50-74% of wetland has buffer; average buffer width is 100-324'	75-100% of wetland has buffer; average buffer width is 325-825'	Fair	Good	Apr-29	Stayed the same	

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		Wetland function	Surrounding land use intensity	High, e.g., urban, industrial, row cropping, heavy grazing; 0-99' from wetland	Moderately high, e.g., residential or exurban, fenced pasture park, field crops or hay, moderate grazing; 100-249' from wetland	Low, e.g., old field (>10 yrs.), shrubland, rangeland or pasture with prescribed grazing plan that protects wetland; 250-499' from wetland	Very low, e.g., preserve, nature park, no or minimally disturbed open area; 500-1000' from wetland	Fair	Good	Apr-29	Stayed the same, but feel intensity is getting higher because of development pressure
Lower Bear Riparian Main Stem (includes tributaries to Bonneville bench and Malad)	Landscape Context	Fluvial geomorphology	Channel adjustment	Major amount of channel adjustment beyond natural conditions (variability)	Moderate amount of channel adjustment beyond natural conditions (variability)	Minimal amount of channel adjustment beyond natural conditions (variability)	Channel adjustment within natural conditions (variability)	Good	Good	Apr-29	Stayed the same
		Fluvial geomorphology	Floodplain connectivity (lateral inundation)	Floodplain very rarely inundated (>15-year intervals)	One floodplain inundation event in a 5-15-year period	One floodplain inundation event in a 5-year period	Two floodplain inundations events in a 5-year period	Fair	Good	Apr-29	Completed enough projects to go from Poor to Fair. All tributaries have flooded since 2009.
		Fluvial geomorphology	Sinuosity	Completely outside range of natural (reference) conditions	Moderately to severely departed from reference conditions	Slightly to somewhat departed from reference conditions	Wholly within range of reference conditions	Good	Good	Apr-29	Stayed the same
		Fluvial geomorphology	Width to depth ratio of channel	Completely outside range of natural (reference) conditions	Moderately to severely departed from reference conditions	Slightly to somewhat departed from reference conditions	Wholly within range of reference conditions	Fair	Good	Apr-29	Some projects have improved but not enough to change rank.

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		Hydrology	Flow regime	Heavily altered flow regime. Hydrograph does not resemble the natural/historical hydrograph	Moderately altered flow regime, non-natural hydrograph	Minimally altered flow regime	Natural hydrograph, no alteration of flow regime	Poor	Fair	Apr-29	Operations have changed some at Hyrum Dam. Regime is regulated by water rights, not likely to change.
Condition	Connectivity within stream reaches	Degree of fragmentation of riparian patches within reach	Disjunct small riparian patches, highly fragmented and completely unconnected	Riparian patches moderately fragmented and mostly unconnected	Riparian patches moderately fragmented and mostly unconnected	Riparian patches continuous and totally connected	Fair	Good	Apr-29	Some projects on BR Bottoms, Cub, and Little Bear improved from Poor to Fair	
	Riparian vegetation presence	Extent of riparian vegetation coverage relative to site potential	0-25% of available floodplain (potential riparian habitat) occupied by riparian vegetation	25-50% of available floodplain (potential riparian habitat) occupied by riparian vegetation	50-75% of available floodplain (potential riparian habitat) occupied by riparian vegetation	75-100% of available floodplain (potential riparian habitat) occupied by riparian vegetation	Fair	Good	Apr-29	Trending upward in quality of vegetation, but not enough to change rank.	
	Vegetation composition	Percent cover that is native versus non-native	0-50% native	50-75% native	75-90% native	90-100% native	Fair	Good	Apr-29	Many riparian projects have improved native cover - esp. grasses.	
	Vegetation demography	Number of age classes present	0-1 age classes	2 age classes	3 or more age classes, with some spotty or low representation	3 or more age classes, balanced and robust representation	Good	Good	Apr-29	Many projects to work on age classes. Recruitment is good.	
	Vegetation structure	Number of structural layers present (up to four)	0-1 layer	2 layers	3 layers	4 layers	Fair	Good	Apr-29	Still only 2 or 3 structural layers.	
	Lower Bear Riparian Tributaries (from	Landsc	Fluvial geomorphology	Floodplain connectivity (lateral inundation)	Floodplain very rarely inundated (>15-year intervals)	One floodplain inundation event in a 5-15-year period	One floodplain inundation event in a 5-year period	Two floodplain inundations events in a 5-year period	Good	Good	Apr-29

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benches to headwaters)											
	Fluvial geomorphology	Width to depth ratio of channel	Completely outside range of natural (reference) conditions	Moderately to severely departed from reference conditions	Slightly to somewhat departed from reference conditions	Wholly within range of reference conditions	Good	Good	Apr-29	Stayed the same	
	Hydrology	Flow regime	Heavily altered flow regime. Hydrograph does not resemble the natural/historical hydrograph	Moderately altered flow regime, non-natural hydrograph	Minimally altered flow regime	Natural hydrograph, no alteration of flow regime	Good	Good	Apr-29	Stayed the same. Can't change do to water rights.	
	Condition	Connectivity within stream reaches	Degree of fragmentation of riparian patches within reach	Disjunct small riparian patches, highly fragmented and completely unconnected	Riparian patches moderately fragmented and mostly unconnected	Riparian patches moderately fragmented and mostly unconnected	Riparian patches continuous and totally connected	Fair	Good	Apr-29	Riparian areas are getting worse because of recreation. Visits have more than doubled. Trending down.
		Riparian vegetation presence	Extent of riparian vegetation coverage relative to site potential	0-25% of available floodplain (potential riparian habitat) occupied by riparian vegetation	25-50% of available floodplain (potential riparian habitat) occupied by riparian vegetation	50-75% of available floodplain (potential riparian habitat) occupied by riparian vegetation	75-100% of available floodplain (potential riparian habitat) occupied by riparian vegetation	Fair	Good	Apr-29	Trending down because of recreation impacts.
Vegetation composition		Percent cover that is native versus non-native	0-50% native	50-75% native	75-90% native	90-100% native	Good	Good	Apr-29	in 2009 was ranked Very Good but all felt that was too high. Hasn't really changed.	
Vegetation demography		Number of age classes present	0-1 age classes	2 age classes	3 or more age classes, with some spotty or low representation	3 or more age classes, balanced and robust representation	Very Good	Very Good	Apr-29	Have very good age classes here	

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		Vegetation structure	Number of structural layers present (up to four)	0-1 layers	2 layers	3 layers	4 layers	Very Good	Very Good	Apr-29	Have very good layers
Lower Bear Aquatic Main Stem	Landscape Context	Channel-forming flows	Frequency and duration	Channel-forming flows do not occur; no or limited sediment movement	Channel-forming flows occur only during high flood events	Channel-forming flows occur during high water years	Natural hydrograph	Fair	Fair	Apr-29	Still have good flows in high water years. Doubt change because water right driven.
		Connectivity	Presence/absence of barriers	Highly modified flow regime - little to no water due to diversions and lack of fish passage	Water diversions and fish barriers diverting flow and modifying fish passage	Some diversions and passage barriers, but maintains fairly natural flow regime and connectivity especially at high flows	Natural flow regime - minimal water diversions and unnatural barriers to fish passage	Fair	Good	Apr-29	No change
	Condition	Biological community	Fish community	None supported, monoculture or dominated by non-native species	Non-natives interfere with native species	Low occurrence of non-natives, do not interfere with native species (co-existing populations)	Native community intact and stable	Poor	Fair	Apr-29	No change and probably won't change because limited to Utah Sucker.
		Water quality	Dissolved oxygen, N, P, Temp, conductivity, pH, turbidity, total dissolved solids	Highly altered from expected values - not suitable to aquatic life native to the system	Altered from expected values and may be harmful to aquatic life with other stressors	Altered from expected values, but not harmful to aquatic life	Within range of expected values	Poor	Fair	Apr-29	Trending upward. Another monitoring cycle may prove higher rank.
Lower Bear Aquatic Tributaries (from main stem to Bonneville Bench)	Landscape Context	Channel-forming flows	Frequency and duration	Channel-forming flows do not occur; no or limited sediment movement	Channel-forming flows occur only during high flood events	Channel-forming flows occur during high water years	Natural hydrograph	Good	Good	Apr-29	Stayed the same.

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		Connectivity	Presence/absence of barriers	Highly modified flow regime - little to no water due to diversions and lack of fish passage	Water diversions and fish barriers diverting flow and modifying fish passage	Some diversions and passage barriers, but maintains fairly natural flow regime and connectivity especially at high flows	Natural flow regime - minimal water diversions and unnatural barriers to fish passage	Fair	Fair	Apr-29	Changed to Fair - never should have been good due to barriers and dams.
	Condition	Biological community	Fish community	None supported, monoculture or dominated by non-native species	Non-natives interfere with native species	Low occurrence of non-natives, do not interfere with native species (co-existing populations)	Native community intact and stable	Fair	Fair	Apr-29	No good habitat for native species. Stayed the same.
		Water quality	Dissolved oxygen, N, P, Temp, conductivity, pH, turbidity, total dissolved solids	Highly altered from expected values - not suitable to aquatic life native to the system	Altered from expected values and may be harmful to aquatic life with other stressors	Altered from expected values, but not harmful to aquatic life	Within range of expected values	Fair	Good	Apr-29	Changed because of typo. Trending toward good but Temp is too warm now and trending warmer.
Lower Bear Grasslands and shrublands	Landscape Context	Ecological processes/disturbance regimes	Fire frequency/intensity relative to natural (historic) range of variability	Invasives are dominant and accelerates fire cycle that favors cheatgrass and other noxious invaders; fire burns everything.	Many areas are dominated by invasives and there is potential for it to spread into other areas.	Non-invaded areas are maintained, 50% invasives areas are restored to perennial grasses: burn leaves mosaic.	Less than once per year cool season fires or fire surrogate.	Fair	Good	Apr-29	Changed definition of 'cheatgrass' to invasives. Trending downward.
		Ecological processes/disturbance regimes	Grazing (herbivory trampling) regime - relative to natural (historic) range of variability	Promotes increasers/monoculture by higher stocking rates, no rest, graze same season every year.	Grazing practices not destroying grasslands, but focus is not on grazing disturbance to promote healthy grasslands.	Grazing intensity is distributed evenly. Grazing practices for a majority of users are enhancing grasslands.	Doesn't promote increasers, promotes diversity by lower stock density, rotational resting	Fair	Good	Apr-29	Trending upward.

Summary of Threats										
Lower Bear River CAP 2019										
Focal Systems		Lower Bear Wetlands	Lower Bear Riparian Main Stem (includes tributaries to Bonneville bench and Malad)	Lower Bear Riparian Tributaries (from benches to headwaters)	Lower Bear Aquatic Main Stem	Lower Bear Aquatic Tributaries (from main stem to Bonneville Bench)	Lower Bear Grasslands	Overall Threat Rank	2019 Notes. Based on inefficiency of going through each Target Area, unless noted, over all threat rank of Threats was determined for all Lower Bear. White background - stayed the same, greenish background - threat decreased, yellowish background - threat increased since 2009	
Project-specific threats										
1	Residential and Commercial development	Very High	Very High	Very High	Very High	Very High	Very High	Very High	Very High	Changed to all Very High. impervious surfaces, run off, light, noise. Combined residential and commercial.
2	Water allocation policies	Very High	Very High	Very High	Very High	Very High	Very High	Very High	Very High	Changed to all Very High
3	Non-desirable or invasive species	Very High	Very High	Very High	Very High	Very High	Very High	Very High	Very High	Changed to Very High. Both aquatic and upland undesirables. All wheat grass, Cheat grass, reed, phrag, medusa. Would like separate of native and non-native. Desirable or undesirable instead of invasive are bad. Russian Olive - smooth brome. Combined with 'Mono-typic stands'
4	Improper agricultural practices	Medium	Medium	Medium	Medium	Medium	Medium	Medium	Medium	Combined with feedlot management, grazing and ag practices. Changed to Medium because of improved practices for grazing, feed lot and irrigation. Still need objectives to track?

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5	Overland flooding straight into river (either irrigation, rain, or runoff event)	Medium	Medium	Medium	High	High	Low	Medium	Combined Inappropriate flood irrigation practices to this threat. Threat is medium because overland flow adds flow but can have nutrients/contaminants. Coming out of 3 Creeks area is a lot of bare ground not to catch it. Blacksmith fork, Rich Co - grazed to nothing, HWRanch. Overland flow natural areas, urban, and ag areas. Possibly identify problem areas?
6	Mining and energy							Low	Not aware of any threats. Exiting - gravel pits in ID, but not in lower. Review annually based on proposals.
7	Improper Bank Stabilization Projects							Medium	Changed name from Rip-rap/other stream bank stabilization. Really was bad projects. Combination of hardening and vegetation. Pushed energy to someone else - downstream. Not being done correctly - during high flows. Keep additional impacts from occurring and fix old/bad time. Getting better but still a threat.
8	Dams and diversions.							High	Only looking 10 years into future (BR Dev pushed 30 yrs). Feel the overall threat is high because of existing dam and diversions. High because there are diversions all along. Structures that move water from the river. Is water quantity? Other issues, water quality.

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9	Storm water							High	Run off from urban will increase with development. Not regulated or monitored.
10	Waste water							High	Waste Water is impacting river water quality. 3 IN Cache (Logan, Richmond, Hyrum, Wellsville) BE - Bear River, Tremonton, Corrine), JBS Swift. then rest is Septic system.
11	New water development projects							High	While decisions for large development projects may be 40 yr., because of pipeline acquisition and other assumptions made by state and local planners' threat is high.
12	Channel instability that leads to sedimentation							High	Instability increases erosion, leads to more incising, which is less flood plain connectivity. Sedimentation is a threat. How water is released from dams, grazing, main stream is high, tease some of this out in obj. If say eroding sedimentation, then miss riparian areas. Unstable banks.
13	Conversion to more efficient irrigation systems - losing flood irrigation practices							Medium	Combined with inefficient irrigation practices. Trending to more efficient and much less flood irrigation. Not quite high. Higher in Cache than Box Elder. Cutler Dam up. Higher tributaries. Logan and Bear largest. is the threat now too much efficiencies? So, no return flow? Do we know where we need return flow? IF WE LINE every system and pivot all acres. Ex Cub River -

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									pressurized system, the end of the system got water rights and not the river.
14	Recreational use/development							Medium	Probably higher due to Assessment notes. Have a ski pond. Group still think it is med. See if can identify an objective to follow use.
15	Fire causing loss of shrub-steppe habitat - erosion from loss fire consequences.							Low	still low, not a huge area that would impact river. Possibly investigate Forest Plan for objective to address.
16	Road proposals							Low	SR 30, crossings, culverts, leave low as no new roads proposed in 10 yrs.
17	Groundwater pumping							Medium	New ground permits in Malad? Depends on development of ground. Only in BE, not in upper. See Oaks paper for ASR and Reservoirs (presented at CWD)
18	Climate Change			-			-	-	??
Threat Status for Targets and Project									Deleted threats from 2009: CRP funding, loss of winter range, and agricultural conversion to plant species not used by grouse because these were not seen as threats to BR

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Objectives and Strategies		
Lower Bear River CAP 2009 to 2019		
#	2009 Objectives, Strategic Actions with Steps and Indicators	10 Year Review Notes 2019
Objective	Enhance wetland, riparian and aquatic targets by achieving water quality goals.	
Strategic action	Actively participate with communities in developing and implementing water quality plans, with a view to protecting targets.	TMDLs – There is an implementation plan for the lower Basin. Worked with BRAG to educate community planners about water quality. *** Now revising. Implementation status compliance for permittees should be reached by April 2021. (Mark Nelson stepped down from public works with Logan City). Follow up on his successor. ***All feel there is a lot more potential.
Strategic action	Coordinate with TMDL development and implementation to encourage restoration of wetland and riparian area as mitigation opportunities.	This is ongoing. There is coordination between districts and land owners. Have been large areas of improvement. ** Follow up on mapping – yes or no?? UGS is doing wetland functional assessments for wetlands around Bear. ** Follow up, may have mitigation projects mapped too. Also follow up on how DEQ wetland water quality standards and storm water treatments could improve mitigation.
Strategic action	Help identify areas where conservation targets are negatively affected by illegal water discharges.	This obj was aimed at point sources where folks have direct loads, pipes going into Cutler, Spring Creek and BR, larger issue of flow that Logan River should not get effluent but does during flooding events. ** Follow up – effluent still being discharged – Logan City is getting a treatment facility but not 30%. Find out piping for irrigation switches, canals on Logan River. Ask Mark. Springcreek, Blue Spring and Logan River. Identified tile drains in lower basin as non-point source but also coming from ID. Continue following.

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		New development in Tremonton that is discharging to the river (Bear Hollow). Elwood City is new but has lagoon system.
Strategic action	Learn more about water quality trading options.	Got funding for trading and developed a Watershed Information System. Produced a report? – follow up. As far as we know they have not had any trades. This system has worked in other states like NY and ??.
Objective	Grazing and other agricultural practices are not negatively affecting conservation targets in priority areas.	
Strategic action	In priority areas educate landowners about wetlands, riparian and grassland grazing BMPs. Small p for priorities as in wetlands/rip and grasslands as a priority.	UDAF and Soil Districts – lots of BMP moneys have been spent – part of their job – high on funding priority. Rotation grazing. ***how can we help each other on this to improve wetlands or WQ?
Strategic action	Target landowners in priority areas to assist them with NRCS funding to improve grazing practices (start where it counts).	Gabe (DEQ/NRCS) looked at river corridors. Have not yet reached out to land owners. ** Follow up on action from CAP
Strategic action	In the upper Bear, cooperate with Federal, State and local agencies and private landowners to develop watershed-based Coordinated Resource Management Plans or other cooperative agreements to improve rangeland health.	CRMP – Rich County has CRMP, we want to support – County is implementing – Mitch Poulson (Bear Lake), Rich Co facilitated it is now Extension Service. Yes, 3 Creek has one, not driven by this CAP group, built outside. *** Follow up for opportunity to work with CRMP
Strategic action	Entities holding easements coordinate efforts regarding grazing restrictions in easements.	Dunno
Objective	Guide residential and commercial development away from high priority conservation sites.	

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Strategic action	Develop a map that identifies high priority riparian, aquatic and wetland sites.	New NWI for area came out but UGS is challenging for Cache Co. Peter UGS is working on a priority map but won't be done until 2021. BRAG needs this to encourage development staying out of flood plain and then all wetlands. Needs GIS layers (soil, wetlands, riparian) to share with planners. Would like to implement on a land use level. Get them to restrict types of development. Need to follow up why it hasn't gone better at BRAG ***
Action step #1	Consider a SAMP for Cache and Box Elder Counties.	Explored this option and felt they were not effective or could not get communities to commit.
Strategic action	Secure conservation easements or acquisitions on parcels identified as high priority.	Some easements have been completed.
Action step #1	In the middle Bear collaborate with Sagebrush Steppe and other partners to obtain conservation easements. BRLC is established and FWS and DWR.	Much progress has been done partners. USFWS developed a prioritization for properties in whole BR Watershed – prioritized High med low. Follow up on priorities and easements to map and compare. *** FFSL on Green Canyon – get them spatially.
Strategic action	Develop, implement/enforce floodplain ordinances within Box Elder, Cache, Maps – are some, planning overview – AGRC maps. Wetlands layer didn't take the right NWI portal -	Pre-diasater for Floodplain Model Ordinance – go above and beyond from a liability perspective. Getting close to good progress – just model ordinance. Zach will send out. Spanish Fork did 2 base flood elevation.
Strategic action	Revisit Utah State engineer's stream alteration permitting process/rules.	Permitting process too complex to change. However, an In-Lieu Fee (ILF) Wetland Permit Program is being investigated by TNC which could impact Stream Alteration Permits eventually.
Action step #1	Assure that mitigation requirements are being enforced.	Did not follow up. ILF Program will help mitigation program
Action step #2	Assure there are rules in place that prohibit building in floodways.	Not clear if/who followed up. We know there is FEMA rules, but don't feel they protect watershed. Follow up with FFSL rules
Strategic action	Work with the Army Corps of Engineers to designate the Bear River floodplain as a mitigation site.	Did follow up with Corps but unsuccessful. ** pursue or not?

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Strategic action	Educate officials and the public on the importance of protecting the conservation targets.	Was done, but needs to be done again and set up as an ongoing presentation. Recently presented to the Cache Water District and DEQ
Action step #1	Develop an education plan that targets key audiences, including Education plan – for wetlands.	Was done. Need funding to update the plan and take it to planners.
Strategic action	Encourage local government participation in regional planning that includes consideration of the wetland, riparian, grassland and aquatic targets.	See above!
Action step #1	Present idea of Envision Cache to Box Elder Co.	Was done Rich Co in 2014 for in UT. ** Need to include Box Elder.
Action step #2	Support the Envision Cache Valley effort that encourages compact/smart development and avoids residential and commercial creep into sensitive areas.	Was done. However, now a new County planner being hired ** Follow up and invite to CAP meeting.
Objective	Impacts are minimized from mining and energy as the result of science-driven locations.	
Strategic action	Work with energy and mining companies and regulating agencies to apply the Energy-by-Design mitigation hierarchy.	PacifiCorp is involved. Follow up with Logan Power. Potentially with solar development??
Action step #1	Under the hierarchy, first avoid impacts to high priority targets. If avoidance is not possible, then minimize, restore or mitigate impacts.	Follow up to encourage Solar to comply with Energy by Design. ***
Objective	Impacts are minimized from recreational use/development.	
Strategic action	Educate ATV groups about wetland values.	Did not have anyone on CAP Team to follow up.
Action step #1	Consult with the Forest Service about their ATV education program to identify areas for involvement.	FS need follow up! FS Dave Asby is in trails ATV trails. Also county trails

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Objective	Minimize the effect of fire causing loss of shrub-steppe habitat.	
Strategic action	In priority Sharp-tailed grouse areas use management techniques that minimize the effect of fire.	Done by others
Action step #1	In priority areas suggest the following management approaches: 1) implement green strips and re-seed after fire with appropriate seed mixes, including shrubs; 2) minimize fine fuels; 3) avoid prescribing fire in low-elevation Wyoming sagebrush.	Done by others
Objective	The mainstem riparian target improves from poor to fair condition.	
Strategic action	In priority areas identify opportunities for bank sloping, grazing management, increasing vegetative diversity and increasing the connectivity of riparian patches.	Hard to get funding for BR mainstem. Gabe (DEQ) has two projects on mainstem. Mostly in Cutler area – several projects. PacifiCorp is doing project for WQ. Need to map and prioritize
Strategic action	Organize cooperative work days to plant cottonwood and willow cuttings along the mainstem in priority areas.	Has been done by FFSL, BRLC – chosen well with planting ** continue
Strategic action	Help landowners fence off riparian areas anywhere along the length of the Bear River.	Done some. Continue, and follow up.
Strategic action	Educate landowners and cooperate with local weed and pest districts to apply herbicides and pesticides in a manner that does not retard or prevent woody vegetation along the river.	Done PacifiCorp, Co, FFSL, BRLC, property and with FFA spray days. Not a formal group – between Cache and Franklin Co pay dues. Follow up with FFSL and FFA for consistency.
Objective	The most problematic invasive species are identified, mapped, and action taken to stop their spread. Educated landowners are active participants in these efforts.	

Appendix A – Lower Bear River Conservation Action Plan – Target Viability, Threats, Objectives and Strategies

Strategic action	Identify problem vascular invasives (consider beyond plants and fish).	Some were mapped – plants – Russian olive, tamarisk, loosestrife, goats rue by Conservation Districts. FFSL some mapping. PacifiCorp done mapping. Follow up for centralize mapping
Strategic action	Map problem invasives.	See above. Follow up on Quagga mussels.
Action step #1	Pull together existing information, identify gaps, survey where there are gaps, and identify priority areas - based on high target value and problem areas.	County is interested in certain areas – specific species in an ongoing basis. Need more coordination – where?. Ongoing. DWR sprays on their property. What about WRI? **** ask Matt – follow up.
Strategic action	Investigate development of cooperative invasive species management programs that would include county weed control offices and landowners.	Unsure. Follow up with Matt and Co.
Strategic action	Investigate programs that fund invasive management, such as NRCS, to fund management actions.	Getting funding – doing ongoing. Follow up on schedule for applications and responsibility
Strategic action	Improve landowners, irrigators and sportsmen's understanding about invasives and why they are a problem. For example, educate landowners about the importance of sanitation to keep aquatic nuisance species out.	State has upped their education. Ongoing. Will be continued by individuals within CAP. FFSL. Eve, Casey BRLC, Conservation Districts, Gabe – work with those. FFSL – education and UDAF.
Strategic action	Develop and implement an action plan that establishes priorities for treatment and timelines.	Ongoing.
Action step #1	Consider using water level management to control/flood-out mono-typic stands of non-native grasses.	This was trying to address Phragmites. We now know this won't work in this system.
Objective	Tributaries provide good aquatic conditions that support native species.	
Strategic action	Support stream inventories within the tributaries to identify fish passage restrictions and entrainment.	Other CAP

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Strategic action	Develop flow prescriptions as part of the stream assessment and promote efforts to secure instream flows needed to maintain riparian resources, channel conditions and aquatic habitat.	Other CAP
Strategic action	Based on the inventory, take action to remedy problems in priority areas, such as enhancing landowner water diversions for improvement to fish passage.	Other CAP
Action step #1	Investigate the potential for a stream corridor ordinance.	Other CAP *** they all addressed in other CAPs.
Strategic action	Identify priority areas for instream habitat restoration.	Other CAP - *** invite Marissa to other CAPS. But needs to be done for main stem
Strategic action	Identify and eliminate adverse effects on native fish associated with non-native aquatic species.	No native fish in mainstem.
Objective	Understand the impact that climate variability has on the conservation targets.	Yes. resiliency? Extremes? - *** Suggestion to do another Climate workshop
Strategic action	Conduct workshop with climate experts to help assess effects of and develop strategies to address climate variability.	Was done in 2005
Objective	Wetlands, riparian and aquatic targets have adequate water to maintain the system in good to fair condition.	
Strategic action	For areas identified as high priority riparian, aquatic and wetland sites, determine the amount of water needed to sustain the system into the future and work with the water community to address these needs.	Not done on main stem. Follow up on prioritization and determine optimum amount, range or variability.
Action step #1	Develop necessary agreements to buy/lease/rent water.	Follow but we can't influence state law– how can we help educate land owners?

Appendix A – Lower Bear River Conservation Action Plan – Target Viability, Threats, Objectives and Strategies

Strategic action	Create partnerships for water conservation.	what else can/should be done? – stretch goal – work on this if can do everything else. Lots of efforts being done by others.
Action step #1	Investigate opportunities with local irrigation companies to: 1) accurately measure flows; 2) divert based on demand (assure water right/share is not lost); 3) move from flood irrigation to sprinklers where appropriate, line canals, etc.	Much work has been done for ag efficiency. Metering is being addressed on multiple levels. Follow up at CAP meetings to share info.
Strategic action	Assess any new water project on a case-by-case basis; look at projects for opportunities to provide additional water for targets	Talking about this – proposal of new plant in BE is there a better way for water for new depletions. DNR has group that meets about water – added to case by case. Conservation is built in for new development before water runs out. Follow up with DWRe for updates.
Strategic action	Create/maintain conversation with major water user groups.	who/how to do this? ** follow up to identify what groups and ways to communicate
Action step #1	Seek seat for the Bear River Refuge (Refuge would actively participate) on Bear River Water Users Group.	There is a Consortium of water users. ** follow up on getting a seat or communicating with
Objective	Determine Objectives and Strategies for 2020-2030 CAP	Schedule 2020-2030 CAP Objectives and Strategies