

# Escalante River Watershed Partnership

## Full Partnership Meeting

November 7, 2018 | 9:00 am - 3:00 pm  
BLM Conference Room (755 W. Main Street, Escalante, UT)

### \* NOTES \*

**Participants** – see last page

#### **ERWP Strategic Planning - Presentation and Plenary Discussion**

- Tahnee Robertson and Chelsea Silva, Southwest Decision Resources (SDR) are the new facilitation team for the Escalante River Watershed Partnership and strategic planning process
- Linda Whitham gave a brief history and update on ERWP
  - ERWP 10-Year Action Plan was put together in 2011 as a blueprint for carrying out restoration in the watershed
  - ERWP's biggest success so far has been the near completion of woody invasive initial treatment
  - Now that initial treatment is nearing completion, the Coordinating Committee felt it important to take another look at the Action Plan in order to figure out what is next for ERWP (e.g., what objectives to focus on following woody invasives) and initiated strategic planning in June 2018
  - The goal for this full partnership meeting is to gather input from partners on priorities for ERWP moving forward
  - High Priority objectives identified include Seeps and Springs, Riparian, Wildlife (Native Fish), Science/Research/Data Management, and Stewardship
  - Other objectives include Uplands, Recreation, and Fire
- Other Updates
  - Stephanie Minneart and Sue Fearon are leaving GSEP and their positions will be combined and a new Restoration Program Coordinator will be hired soon

#### **Strategic Planning Café – Flip Chart Notes**

##### **Riparian Notes**

- Current and Recent Efforts
  - Russian olive → 2019 initial on public
  - Woody invasive control - roughly 2 miles left on public
  - Private: some large mainstem parcels remaining and not targeted currently
  - 2019 – monitoring and maintenance on both public and private lands with some initial left on the public land.
  - Cutthroat trout habitat work - reducing conifer encroachment
    - Water gain
    - Riparian habitat restoration
- Opportunities/Ideas
  - Monitoring tamarisk and other exotics expansion
  - Landowners take ownership of control efforts
  - Education – impact of restoration – for landowners
  - County weed sprayer help with maintenance (CWMA) on private land
  - Feral cattle on river – identify incentives for removing

- Wildlife monitoring as an indication of riparian health
- Beaver dam analogues (BDA)
  - Use of lop and scatter/forest thinning material to create BDAs
- Assess community watershed priorities
- Quantify water gain on conifer projects
- Visitor impact – education opportunity on how to recreation in riparian areas (i.e., Leave No Trace)
- Create an Adopt-a-Mile of the Escalante River program – combine monitoring, maintenance, and education
  - Involve public, universities, high school students
- Biggest Needs
  - Monitoring and maintenance of woody invasive control
    - Acquire data of channel changes – long term
  - Re-treatment where needed including on private lands
  - Need resources, community to improve riparian areas by removing feral cows
  - Erosion control – reestablishing water table, water retention
  - Hold water upstream
  - Incentivize action
  - Shared knowledge, building of watershed priorities
  - Educators on the ground to interact with community – also, signage
  - Monitor to determine what is recruiting in the wake of Russian olive removal
  - Assessing grazing impact on headwaters, riparian areas and how this impacts erosion
  - L/T (long term) maintenance/monitoring using outside partners
  - BLM/USFS/DWR – should coordinate on water retention in headwaters
    - BDAs
- Questions
  - Do we have the human resources to monitor?
  - Where does money come from for public and private lands maintenance?
  - How do you build political will for watershed health issues?
  - How do we incentivize action?
  - What other exotics will take the place of Russian olive?
  - How do we encourage native woody species to return on public land? Is planting cost effective?
  - How much is climate change going to affect evaporation? (especially of the reservoirs)
  - Does ERWP have the resources or ability to develop the resources to engage students, universities, volunteer organizations to monitor?
  - Who to engage? University, school groups, others

### **Science and Data Management Notes**

- Current Efforts
  - Database with data structure (categorized, metadata, contact info...)
    - Provide data inventory
  - Springs inventory
    - ERWP, Springs Stewardship Institute (SSI), etc.
    - Reconciling and appending
  - Citizen science outreach
    - Water

- Opportunities/Ideas
  - Upland management
  - Hydrologic linkages
  - Partnering with Plateau Science Institute (PSI)
  - Bring in experts to review, evaluate, and provide guidance
    - Tell us what we are missing
  - Historical references (private and public lands)
  - Role of beaver in watershed headwaters
  - Cross-cutting topic
- Biggest Needs
  - Advertise and market availability of data
    - What layers are shareable versus private?
  - Research coordination and guidelines
  - Data organization: people do projects and do not know if others have already collected the data
  - Funding/capacity
  - Expand partners to bring additional expertise
    - Re-engage with Wild Utah Project (WUP)
      - WUP doing vegetation/pinon juniper removal study literature review; will be released soon
  - Ground truth of Riparian Condition Assessment Toolbox (RCAT) results
  - Groundwater monitoring
  - Reconstructing past environments (trends, fires)
- Questions
  - Data protection? Shareability?
  - Target audiences?
  - Capacity for upland work
  - BLM past treatment data? (sage, PJ, etc.)

### **Seeps and Springs Notes**

- Current Efforts
  - GLCA (Glen Canyon National Recreation Area) – survey/inventory of 75-80 springs
    - Database includes: vegetation, qualitative discharge, composition, geomorphology, quantitative measures, structure, exposure, invertebrates, water chemistry
    - Have begun monitoring hanging gardens
    - Past work: level one rapid assessment (do not have long term data)
  - GSENM
    - Proper Functioning Condition – qualitative, mostly single survey
    - Project initiated with SSI – level 1 and 2
    - Aquatic Assessment, Inventory, Monitoring
  - DNF
    - National protocols
    - Level 1 – baseline
- Opportunities/Ideas
  - Crosswalk all data
    - Agencies could work with Springs Stewardship Institute to align data and survey protocols as best as possible

- Prioritize restoration (volunteers, citizen science)
- Prioritize long-term monitoring
- Personal knowledge of spring history
  - Engage local communities: local people may have knowledge of the springs on their properties
- Engage springs researcher (New Mexico)
- Springs ethnobotany
- Cultural resources, indigenous importance
- Surveys to map out the springs and get baseline information on their status
- Biggest needs
  - Data mining (GSENM, DNF)
  - Standardized set of basic protocols and implement watershed wide
  - Trends over the region
  - Water budgets – very expensive to develop
  - Age of water – would be nice to know how far
  - Hydrological linkages
  - Basic monitoring tools (data loggers, site selection)
  - Cross disciplines with experts, applied science
  - Workshop/retreat/science symposium
- Questions
  - How many springs? (BLM, DNF)
  - What do we know about springs on private lands?
  - Capacity:
    - Funding opportunities (USGS)
    - State hydrology
    - Geo-Corps intern
    - GSEP grant
    - Retirees with expertise (snail -Howard Hutchinson)
    - FWS – private land
    - Recreational impacts
  - Need for better fencing around springs – wildlife and feral cattle

### **Stewardship Notes**

- Recent and Current Efforts
  - USU Utah Water Watch – water quality monitoring
  - Worked with Conservation Corps – up to 5 programs
    - Woody invasives, encroaching conifers, and monitoring work
  - Volunteers – woody invasives; over 2,500 hours
  - GSEP community lectures
    - Escalante Watershed themes and Four Corners Potato in Escalante
  - Art Festival Booth
  - High school field trips and talks
    - Presentations
    - Planting private lands
    - GIS demo
    - Corps talk
  - ERWP newsletter

- Conferences, workshops (with Society for Ecological Restoration, RiversEdge West)
- Photo storytelling of history with Boulder Community Alliance
  - Pioneers in Your Attic
- Ancestral Lands Program – Corps Russian olive work
- Opportunities/Ideas
  - GSEP hiring volunteer coordinator in future – watershed focused volunteerism
  - Kiosk displays - highly visible areas, e.g., Calf Creek Falls and communities
    - Woody invasives story
  - Community trainings/education/storytelling about accomplishments and future
    - Camp host, business owners, Corps
  - Pamphlets or one-pager white paper about accomplishments and lessons learned (piling)
  - Working with outfitters and guides
  - Utilize Corps for volunteer opportunities
  - Conferences/workshops
  - Science symposium
  - Form a partnership with agency partners, Corps, school systems, county to form science-based activities for high school students during the school year. During fall and spring break students go out to work with Corps and go camping and do work. Agency staff could do talks. Key is finding funding
    - Add additional partners who might be interested
  - Fossil fuel extraction (oil, natural gas) and effect on groundwater quality and quantity, and effect on farmers and ranchers
    - Need for baseline data
    - Impacts to water quality
    - May be a talking point for riparian or other
  - Graduate study partnership – what makes a successful partnership?
  - Recreation impacts and involving volunteers in monitoring, restoration, and education
  - Photos – document changes over time and help educate the community
  - Corps IP program – assigning to different projects outside of Russian olive
  - Ancestral Lands (AL) program
    - Engaging in volunteerism and conservation work
    - AL grant
- Biggest Needs
  - Storytelling (accomplishments, history, lessons learned)
  - Citizen science (easy entry training)
  - Volunteerism (increase opportunities and variety)
  - Education (schools and adults)
  - Tours, demos on private land successes
  - Engaging tribes in ERWP’s work
    - Especially youth
- Questions
  - How do we incorporate climate change into education and community engagement?
  - How do we help to instill a local stewardship ethic?
  - How do we use conservation corps beyond the Russian olive removal?

### **Wildlife and Native Fish Notes**

- Current Efforts (Native Fish)

- Dixie National Forest (DNF, U.S. Forest Service [USFS]) installed aquatic organism passages (AOP)
  - 8 miles of habitat reconnected
  - Fish ladders installed
  - Received funding to do Hall Creek AOP through Hemmingway Foundation and three others
  - Plan to reconnect 3-4 additional miles of Colorado cutthroat habitat
- DNF and Utah Division of Wildlife Resources (DWR): Colorado cutthroat trout restoration
- GSENM/GCNRA/DWR: three species monitoring (chub, sucker, and dace)
- DWR: Boulder Mountain Fish Plan
- Current Efforts (Wildlife)
  - USU/DWR/GSENM: Turkey tracking study
  - DNF/GSENM/DWR: Hummingbird survey – 10<sup>th</sup> year of data
  - DWR: Ro treatment (*who else?*)
  - DWR/DNF/GSENM: Bat survey
  - DNF: Mexican spotted owl
  - DNF: guzzlers
  - GSENM: new water development
  - Christmas bird count
  - State beaver management plan
- Opportunities (Native Fish)
  - DNF/DWR: Colorado cutthroat trout habitat restoration at North, Pine, Birch and Boulder Creeks
  - GSENM/DWR: Colorado River cutthroat trout restoration at Calf Creek
- Opportunities (Wildlife)
  - Education on ecological role of cutthroat and beaver
  - Yellow billed cuckoo – threatened and endangered
    - (*DWR monitoring?*)
  - Southwest willow flycatcher monitoring
  - With no treatments more opportunity to view wildlife
- Biggest Needs
  - Education on importance of cutthroat
  - Non-native fish that threaten three species in lower watershed (a “ticking time bomb”)

### **“Other Watershed Topics” Notes**

#### Uplands Restoration

- Opportunities
  - Compare AZ to UT cattle grazing management agencies
  - Improve relationship between management agencies
    - Could Cooperative Extension be a partner?
  - Grand Canyon Trust mapping out areas on CO plateau where no grazing occurs
    - Useful for comparing with treatments, important for scientific research
    - Need for enclosures in order to be able to monitor treatments
  - Compile a history of grazing in the area
    - Include cultural history, timeline of Russian olive invasion, photography, and benefits of restoration
    - Once completed, do presentations in local communities and get the word out

- Benefits and impacts of grazing research – opportunity for ERWP to host educational presentation or write article on this research
- Concerns: water quality; conflicts with recreation; biting flies; effects of grazing on aspen and springs; potential for re-entry of cattle into riparian areas with new GSENM master plan (via new federal grazing permits [Animal Unit Months]); unspoken conflicts on land include burning cattle barns and shooting feral cows

### Education and Outreach

- Opportunities
  - Changes in precipitation (decreasing) and temperature (increasing) = drought; what this means to the grazing, recreational, residential communities?
  - Presentations/open houses have been popular in Boulder (50-70 attendees) (used to occur quarterly in Escalante or Boulder, would be better if they occurred more often)
    - Present on studies that people are interested in as it relates to what is happening on the land
    - Agencies, universities could share what they are doing on the land and what they are finding from their studies
    - ERWP could engage NOAA representative (retired volunteer scientist) to do presentations focused on changes in runoff, water
  - Increase online presence (e.g., Facebook posts on meteorological information are very popular on “Welcome to Escalante/Boulder” Facebook page)
  - Outreach Committee could be reformed to increase outreach in the local communities
  - Education in schools
  - Kiosks at public areas that share information about the success of the Russian olive project

### Leave No Trace/Recreation

- Use volunteers to cleanup vandalism, graffiti, and illegal fire rings
- Use volunteers to do education at trailheads on preventative recreation (LNT, safety)
- Emphasize positive impacts

### Wildlife

- Management needed of beavers
  - E.g., Calf Creek where a beaver dam is being built
- Local presentations
  - The State has a management plan for beavers – DWR could give a presentation on the plan to local communities
  - Joe Wheaton, Utah State University, could give presentation on beaver dam analogues
- Potential for using Beaver Dam Analogues for restoration and water retention
  - Keystone species that occupied the land before humans and they are coming back
  - Help hold water back in the headwaters (where appropriate); we can move existing groups of beaver to the headwaters

### Restoration

- Provide information, training and education on native plants (restoration, seed gathering/collection, use) using Utah Native Plant Society Escalante Chapter (this group fell apart but could be rebuilt)

## Fire

- Community fire plan – something locals can get behind
  - State money is available once communities have plans in place
- Fire Council in Boulder – step by step project that has excellent participation from the community (10-20 regular participants)
- Department of Forestry, Fire and State Lands has FireWise programs
  - State will do assessments on private property
  - State FFSL to do training to help people do their own assessments
- Invite FFSL to join ERWP
- Education about benefits of wildfire management on landscape scale and the NEPA process (timing, funding)
  - E.g., Mount Lemmon Forest Service public meetings
- ERWP could help bring speakers to start the conversation in Escalante
  - The biggest threats of wildfire in Escalante
    - Water supply and potential effects of fire on springs
    - Effects on infrastructure
    - Dangers of empty lots that are full of fire prone invasives
  - Professors studying fire could do a talk
  - Internships could be made available with Utah Conservation Corps for students studying fire

## Pinon-Juniper Treatments/Removal (Uplands)

- Dennis Bramble: information needed on hydrologic linkages (connections between springs, seeps, etc.)
  - Currently not available due to cost, but there is potential for low cost information
  - GCT can bring capacity to this effort

## New GSENM Plan

- ERWP can stay ahead of the concerns about fossil fuel extraction by supporting research on current conditions so that there is an understanding of baseline conditions
  - Resource: The Compendium of Scientific, Medical, and Media Findings Demonstrating Risks and Harms of Fracking by concerned health professionals of New York
- ERWP should review and be knowledgeable about fracking if it is to be used in the new plan
- ERWP should disseminate information to local communities about fracking
- Oil, natural gas (on BLM-GSENM)
  - Concern about groundwater
    - Lower water table with use of groundwater
    - Polluting groundwater
    - Effecting farmers and ranchers
    - Town/city water wells

## **Reflections from the Group**

- Lots of interesting projects, but not enough people to do the work
- Water is a theme through all the topics
- What about tribal issues? Addressed in stewardship and seeps and springs
- Need to focus on work and projects that the local communities care about and can get behind



## Who Is Missing?

### Stewardship

- Conservation Corps (recreation impacts)
- School Board Teachers S.T.E.M. (Science, Technology, Engineering, and Math) Initiative
- Outfitters and Guides – GSEP outfitters and guides group
- Great Old Broads for Wilderness (used to help with boots on the ground) – interested in seeps and springs

### Others

- Glen Canyon Conservancy (GCC)
- Spring Stewardship Institute (SSI)
- Museum of Northern Arizona (MNA)
- Southern Utah University (SUU)
- Utah State Extension
- Utah Water Watch
- Glen Canyon Institute (GCI)
- Wild Utah Project
- Grazing permittees
- Western Water Resources (?) (Tim Bradley) – track climate change
- U.S. Geological Survey (USGS) – if there is a funded project, they can participate
- Local people (Boulder, Escalante)
- Local governments (Boulder, Escalante)

## ERWP Committees

### Coordinating Committee

- BLM and GSEP will have two people on the CC into the future
- Current committee members: TNC, BLM, GSEP (new employee and Board member), USFS, NPS, REW (technical support), Corps, USU
- Future: DWR (Erik Woodhouse), Department of Natural Resources (DNR)/Department of Forest, Fire and State Lands (FFSL) (potential- ask Daniel Eddington), Cooperative Ecosystem Study Unit (CESU) representative (potential)

### Riparian Committee (Woody Invasives as an Action Team within this)

- Co-leads: GSEP; Mike Wight, UCC; Afton McKusick, AZ Conservation Corps; Kristen Jespersen, REW
- GSEP would be more interested in participating in having a lead role in woody invasives
- ERWP should involve people in Boulder, Escalante to help them learn about ERWP and restoration efforts

### Science and Data Management Committee

- Co-leads: Mike Scott, Utah State University; Dana Backer, BLM; Linda Whitham, TNC
- Others: John Spence, NPS; Dennis Bramble, University of Utah; Mary O'Brien, GCT

### Seeps and Springs Committee

- Co-leads: John Spence, NPS; Natalie Cabrera, USFS
- Participation: Mary O'Brien, GCT; Alex Engel, GSEP; Dana Backer, BLM

### Stewardship Committee

- Co-leads: GCC?; Outfitter Guide Association (this is a new focus for GSEP); Bureau of Land Management (BLM)/Grand Staircase Escalante National Monument (GSENM); National Park Service (NPS)/Glen Canyon National Recreation Area (GCNRA); USFS; Utah Conservation Corps (UCC, Dave Bastian)
- Participation: UCC; guide outfitters; GSEP (storytelling); Linda Whitham (TNC); Kristen Jespersen (RiversEdge West [REW], as long as there is a woody invasives connection)
- Outreach/Engagement Sub-Committee
- Need to refer to ERWP's outreach and funding plan

#### Wildlife/Fish Committee

- Co-leads: Clint Wirick, Partners for Fish and Wildlife; John Spence, NPS; Erik Woodhouse, DWR; Terry DeLay, USFS
- Needs a follow up since wildlife people were not present for the discussion
- Monitoring health of wildlife is important
- Should this topic be integrated with Riparian or stand alone?

#### **Science Committee – Reports and Discussion**

Dana Backer, BLM

- Comment periods open for four Resource Management Plans and one Environmental Impact Statement
- The Integrating Multiscale Assessment Data to Inform Resource Management: The Escalante Watershed Case Study StoryMap is now shared with the public
  - Integrating Multiscale Assessment Data to Inform Resource Management: The Escalante Watershed Case Study ([follow this link](#))
- Mrs. Backer presented on her field visits with the researchers. These are intended as an information sharing opportunity between researchers in the field and staff at the BLM office
  - Reports are short and intended to help connect field researchers with other BLM staff

John Spence, NPS

- John presented some recent work on springs and hanging gardens
- Hanging gardens and springs support rare, relictual and endemic species
- Rose Canyon has the largest hanging garden in the world
- Are springs and hanging gardens places that will persist with climate change or not?
  - Springs can act as climate change refugia
- Water source (aquifer) is decoupled from regional macroclimate
- There are three types of springs that may act as refugia- which should we monitor?
  - Stable, relative, and transient
  - We should focus on the stable and relative refugia when we talk about monitoring

## **Participants**

1. Noel R. Poe, Grand Staircase Escalante Partners
2. Nicole Croft, Grand Staircase Escalante Partners
3. Terry DeLay\*, U.S. National Forest/DNF
4. Phoebe McNeally, University of Utah Digit Lab
5. Stephanie Minnaert\*, Grand Staircase Escalante Partners
6. Sue Fearon\*, GSEP/ERWP
7. Dana Backer, Bureau of Land Management-Grand Staircase Escalante National Monument
8. John Spence\*, National Park Service
9. Mary O'Brien, Grand Canyon Trust
10. Dennis Bramble, private land owner/University of Utah
11. Bob Hartman, Escalante Resident (water resources interest)
12. Emily Aumann (invited by Mary O'Brien)
13. Julie Brugger (resident)
14. Tom Hoyt, Grand Staircase Escalante Partners
15. Clint Wirick, U.S. Fish and Wildlife Service
16. Julian "Jude" Hatch, Boulder Regional Group (founder)
17. Dave Bastian, Utah Conservation Corps
18. Joe Zelman, Utah Conservation Corps
19. Afton McKusick, AZ Conservation Corps
20. Steve Cox, Town of Boulder (works on private lands)
21. Craig "Sage" Sorenson, Grand Staircase Escalante Partners/landowner
22. Robert McElaney, Escalante/Boulder Chamber of Commerce (Board)
23. Calder Brown, Grand Staircase Escalante Partners (Field Coordinator)
24. Christine Buck, GSEP (Field Coordinator)
25. Alex Engel, Grand Staircase Escalante Partners (Field Coordinator)
26. Natalie Cabrera, DNF (Hydrologist)
27. Jason Phillips, Canyon Country Youth Corps
28. Natalya Walker, Canyon Country Youth Corps (Woody invasive removal)
29. Kristen Buck, GSEP
30. Erik Woodhouse, Utah Department of Wildlife Resources (by phone)
31. Kristen Jespersen\*, RiversEdge West
32. Mike Wight\*, Southwest Conservation Corps (Ancestral Lands)
33. Mike Scott\*, University of Utah
34. Linda Whitham\*, The Nature Conservancy
35. Katie Woodward, GSEP

\*Coordinating Committee member

## **Facilitation Team**

Tahnee Robertson and Chelsea Silva, Southwest Decision Resources