

GRANTEE: **FRIENDS OF THE YAMPA**

PROJECT NAME: **YAMPA RIVER LEAFY SPURGE PROJECT**

ROUNDTABLE: **Yampa-White-Green**

[NTP Date: 19 November 2018]

### General Project Status

- All Tasks described in the Yampa River Leafy Spurge Project are presently on schedule and within budget (budget summary appears below).
- In-kind contributions are accruing, as anticipated, from all partners (in-kind contribution summary spreadsheet attached).
- Private landowners along the Yampa River were invited to an informational stakeholder meeting held in Craig on April 24, 2019. Approximately 25 individuals attended. CSU Routt County Extension provided dinner for those attending the meeting. The University of Wyoming team presented an outline of their upcoming work (Tasks 1 and 2).
- A brief update was presented to the YWG Basin Roundtable meeting in Craig on May 8, 2019.
- Two invoices have been submitted to CWCB—4 March 2019 (paid) and 13 May 2019 (in process).
- The primary field season is June and July, so a lot of work is planned for this time frame in 2019.
- Estimated percent completion for entire WSRF-supported Statement of Work  $\approx$  15%. No adverse issues or concerns have been identified.

YRLSP BUDGET—6-Month Status Report—19 MAY 2019					
CONTRIBUTOR	AMOUNT Committed	% of TOTAL		AMOUNT Contributed or Invoiced To-Date	% of Total Project Commitment
CASH					
YWG Basin WSRF Request	\$ 89,000	54%	54%	\$ 9,843	11%
Moffat County	15,000	9%	26%	\$ 15,000	100%
Routt County	15,000	9%		\$ 7,500	50%
University of Wyoming	12,572	8%		\$ 3,073	24%
IN-KIND					
YRLSP volunteers	20,000	12%	20%	\$ 8,220	41%
Other Partners (BLM, NPS, TNC, CDA, CPW, Moffat County, Routt County, CSU Extension)	14,000	8%		\$ 3,001	21%
TOTAL PROJECT COST	\$ 165,572				

**Status of Tasks Identified in the Statement of Work****Task #1 [\$40,900 allocated from CWCB/YWG Basin account—13.6% invoiced]****Develop a watershed scale management framework for leafy spurge in the Yampa Valley through mapping and predictive modelling.**

- Dr. Dan Tekiela (University of Wyoming) distributed a graduate student recruitment notice, received application packets from approximately 18 prospective students, and conducted interviews with all applicants. Dr. Tekiela determined that the applicant pool did not contain a strong candidate for this task and arranged to have the work completed by his senior PhD student, Chloe Mattilio. Budget remains unchanged. Chloe has an extensive background in geospatial data analysis and will include the work on Task 1 as part of her dissertation.
- Three data sources have been identified for satellite imagery needs for the remote sensing portion of this task. Conversations about imagery timings are currently underway with those data sources.
- Chloe assisted in establishing important data collection criteria for on-the-ground leafy spurge mapping to ensure this data can be utilized as ground truthing and species distribution mapping data for both elements of this task.
- 14,000 data points have been obtained on the presence of leafy spurge in Fremont County, Wyoming. This analog site data will be utilized for predicting potential future spread in the Yampa Valley.
- This early work ensures the UW team will be successful in building remote sensing and species distribution maps for the study area.
- Chloe presented her preliminary work at the leafy spurge stakeholder meeting on 24 April 2019 to encourage private landowners to become involved in the project.
- YRLSP volunteer Peter Williams has been working for several months to develop GIS map layers to facilitate field mapping and to provide map information on the YRLSP web site. He has completed development of a MapItFast data collection interface for use on YRLSP tablet devices.
- YRLSP volunteers developed a private land access permission form/data sharing agreement in anticipation of field mapping in 2019 and to facilitate UWYO research activities. The stakeholders meeting in April kicked off efforts to engage private land owners in supporting this project. A number of signed forms have been received in recent weeks. Follow-up contacts are occurring in the coming weeks.
- YRLSP volunteers will conduct leafy spurge mapping along the river on public land and private land where access permission has been secured in May, June and July.
- Estimated percent completion for Task 1  $\approx$  12.5%

**Task #2 [\$40,800 allocated from CWCB/YWG Basin account—6.2% invoiced]**

**Identify best integrated management practices for reducing leafy spurge seed production in four (possibly five) specific riparian habitat types in the Yampa Valley.**

- Graduate student Hannah Kuhns was recruited by Dr. Dan Tekiela (University of Wyoming) to complete work described in Task 2. Hannah arrived in March 2019 to begin her studies.
- Hannah has developed an extensive literature review on the current state of sheep grazing and herbicide control of leafy spurge, and through this work has identified the top four herbicide treatment options to be tested in the integrated management field studies.
- Dr. Tekiela and YRLSP partners have been working to identify suitable sites on private land for conducting various combinations of prescriptive sheep grazing, herbicide applications and mechanical removal of leafy spurge. Two sites have been identified thus far and another field visit with the UW team—including Hannah—is scheduled for the coming week.
- Hannah will be setting up her research plots in the next two weeks. The first Rx grazing treatments will occur in early June. Herbicide applications will occur in the fall.
- Herbicide products have been obtained by UW in the necessary quantities to conduct field studies.
- YRLSP volunteers have been working to secure access permission for the UW research team to conduct their field studies. Dr. Tekiela is working out the regulatory and logistical details of moving UW sheep (seven animals) to Colorado for the field studies. The UW crew will overnight at Carpenter Ranch (TNC) and the sheep will overnight with a local YRLSP volunteer.
- Of note—Corteva Agriscience, the Agriculture Division of DowDupont, has taken particular interest in this research and has offered to make their new active ingredient, florpyrauxifenbenzyl (trade-marked as Rinskor), available for the leafy spurge integrated management field studies. Corteva Agriscience received a 2018 Green Chemistry Challenge Award for Rinskor, which has favorable human health and environmental profiles, such as low persistence in soil and water, and low toxicity to birds, insects and fish.
- Corteva Agriscience has also agreed to support potential extension and outreach activities that may develop throughout this project. Representatives have voiced interest in focusing on this story in their media/outreach materials that are widely available.
- Estimated percent completion for Task 2  $\approx$  5%

**Task #3 [\$ 3,000 allocated from CWCB/YWG Basin account—22.6% invoiced]****Education and Outreach—Engage youth in the Yampa River Leafy Spurge Project, using biological control as a means to encourage learning, participation and productive involvement.**

- YRLSP volunteer Peter Williams gathered known biological control release information from CDA (Kaltenbach), BLM (Rhyne), Moffat County (Counts), CPW (Jacox), Routt County (Brown) and cross-checked with other knowledgeable individuals. Using this data and in consultation with CDA and others, he developed a database for storage of biocontrol release and monitoring data.
- GIS work, data organization, cross-referencing and map production is on-going.
- Three biocontrol sub-group meetings have occurred in Craig at the Moffat County Extension office (Dec, Feb and Apr). Reports on progress were discussed and tasks assigned.
- Tamara, Peter (YRLSP) and John Kaltenbach (CDA) developed a field data form for recording biocontrol release site information and monitoring data. An instruction sheet describing the field protocol is included. Peter developed a companion digital data form in MapItFast/Strider for use on the tablets.
- Peter Williams created an area-wide map and individual site maps for each of the 43 known historic release sites. The area-wide map was printed in large format by Chris Rhyne (BLM). A version of this map has been posted on the YRLSP web site. The site-maps will be included with field monitoring kits.
- Tamara created three biocontrol monitoring kits. The kits contain all equipment and supplies necessary to conduct monitoring at designated biocontrol monitoring sites. Kits will be distributed to Moffat and Routt County Extension offices. The third kit will remain with YRLSP volunteers for opportunistic monitoring during field mapping operations over the next two years. CDA provided three sweep nets (retail value = \$90) for inclusion in the kits; two sweep nets were provided by CSU Extension Moffat County. Other equipment and supplies were purchased with CWCB WSRF grant funds.
- Tamara is working on access permissions for revisiting and collecting data at the known biocontrol release sites.
- Dan Tekiela volunteered to analyze data collected from biocontrol release sites to determine whether any patterns emerge in site characteristics for sites that have retained insects over time (if any are identified).
- June 5, 2019—next scheduled biocontrol subgroup meeting at Extension office in Craig. This meeting will focus on preparations for the July youth engagement event.
- **July 9, 2019**—Moffat County Extension and Boys & Girls Club will be hosting educational activities at Loudy Simpson Park in preparation for beetle release and monitoring at the Yampa River State Wildlife area two days later. Boys and Girls Club is providing lunch for the kids.
- **July 11, 2019** is a Field Day for Biological Control on the Yampa River State Wildlife Area. This event will involve CSU Extension (Moffat and Routt Counties), Boys and Girls Club and Colorado Master Gardener volunteers. YRLSP (CWCB grant) is providing lunch for this event (Tamara will purchase, prepare & serve lunch).
- Estimated percent completion for Task 3  $\approx$  20%

**IN-KIND MATCHING SUMMARY—YRLSP Partners**

Yampa River Leafy Spurge Project—CWCB Water Supply Reserve Fund grant—Progress Report 5-19-2019

**Partner In-kind Contributions—First 6-Month Reporting Period**

PARTNER	DESCRIPTION	Human Resources			Services & Materials			percent of total commitment
		hours	hourly rate	TOTAL	unit	value	TOTAL	
<b>TNC</b>	(Geoff Blakeslee)							
	Lodging for UWYO graduate students and/or faculty at Carpenter Ranch, as needed, @ \$50 per person per night				3	50	150	1%
	Staff time for planning, coordination, meetings, assigned tasks, etc.	3	45	135				14%
<b>YRLSP</b>	volunteers (Ben Beall, Tamara Naumann, Peter Williams, John Husband and . . .)							
	Meetings and coordination related to grant-specific activities	159	20	3,180				53%
	Field Mapping, GIS, data processing and map production	48.5	20	970				1%
	Labor for youth engagement/biocontrol project	203.5	20	4,070				102%
<b>BLM</b>	(Chris Rhyne)							
	Staff time for planning, coordination, implementation, etc.	8	65	520				26%
	Materials and supplies for grant-specific activities				1	60	60	24%
<b>NPS</b>	(Emily Spencer)							
	Staff time for planning, coordination, implementation, etc.	1	35	35				2%
	Materials and supplies for grant-specific activities				1	125	125	50%
<b>CPW</b>	(Tyler Jacox)							
	Staff time for planning, coordination, implementation, etc.	12	30	360				24%
<b>CDA</b>	(John Kaltenbach)							
	Staff time for planning, coordination, implementation, etc.	6	28	168				13%
	Materials and supplies for grant-specific activities				3	30	90	
<b>ROUTT County</b>	(Todd Hagenbuch—CSU Extension & Greg Brown—Routt County Weed Dept)							
	Staff time for planning, coordination, implementation, etc. (Hagenbuch)	6.5	35	228				44%
	CSU Extension materials & supplies for grant-specific activities				3	35	105	
	Staff time for planning, coordination, implementation, etc. (Brown)	1	75	75				
	Moffat/Routt County joint purchase of YRLSP MapItFast License				1	250	250	
<b>MOFFAT County</b>	(Jessica Counts—CSU Extension & Jesse Schroeder—Moffat County Weed & Pest Dept)							
	Staff time for planning, coordination, implementation, etc. (Counts)	6	45	270				47%
	CSU Extension materials & supplies for grant-specific activities				2	30	60	
	Staff time for planning, coordination, implementation, etc. (Schroeder)	4	30	120				
	Moffat/Routt County joint purchase of YRLSP MapItFast License				1	250	250	