

a Supply Reserve Fund – Grant and Loan Program
Water Activity Summary Sheet
September 18-20, 2018
Agenda Item 12(g)

Applicant: Yampa River Leafy Spurge Project

Grantee: Friends of the Yampa

Water Activity Name: Yampa River Leafy Spurge Project—Integrated Management & Predictive Modelling—Research Component

Water Activity Purpose: Multipurpose (Env, Rec, Ed & Outreach)/Study

County: Moffat & Routt

Drainage Basin: Yampa/White/Green

Water Source: Yampa River & tributaries

Amount Requested: \$89,000 Yampa/White/Green Basin Account

Matching Funds: Applicant & 3rd Party Match (cash & in-kind) = \$76,572
• 86% of the Basin Account request (meets 10% min)

Staff Recommendation:

Staff recommends approval of up to \$89,000 from the Yampa/White/Green Basin Account to help fund the project titled: Yampa River Leafy Spurge Project—Integrated Management & Predictive Modelling—Research Component.

Water Activity Summary: WSRF grant funds, if approved, will assist the Yampa River Leafy Spurge Project provide information necessary for development of effective and sustainable management programs for riparian environments in the Yampa River Basin. It will support needed scientific work, engage local youth, and build on local knowledge and relationships to protect both agricultural and environmental water uses for the future.

The Yampa River and its associated agricultural water delivery systems are spreading leafy spurge seeds downstream from a large infestation that has occupied floodplain areas between Hayden and Craig for several decades. Since the 2011 high water run-off season, an exponential increase in the leafy spurge population has been observed in riparian habitat along the Yampa River. Riparian habitat quality and agricultural productivity are actively being degraded downstream for 166 miles to the confluence with the Green River. Tributary streams are also affected (e.g., Little Snake River, Fortification Creek, and Milk Creek).

The objectives of this effort are the following:

- Work with stakeholders and the University of Wyoming to develop a robust, publicly available spatial data set documenting the current distribution of leafy spurge in riparian habitat associated with the Yampa River, tributary streams, and irrigation water delivery systems in the Yampa Valley.
- Utilize remote sensing technology to direct and enhance monitoring and mapping efforts.
- Develop a susceptibility model to predict where new leafy spurge invasion is most likely in Moffat and Routt Counties.

- Quantify the current seed load produced by leafy spurge populations in 4 (possibly 5) specific riparian habitats along the Yampa River and associated tributaries.
- Study and evaluate best integrated management practices for reducing cover and seed production of leafy spurge in diverse riparian systems in the Yampa Valley.
- Develop a map of known and potential leafy spurge biological control sites in the Yampa Valley, and work with the Colorado Department of Agriculture to develop kid-friendly monitoring protocols in anticipation of a future adopt-a-spurge-bug-patch program for engagement of local 4-H clubs, school science classes, and other youth organizations, aimed at improving understanding and appreciation for the relationships between the river, associated riparian habitat, agricultural water delivery systems, and invasive weeds.

Discussion: This effort will assist the Yampa/White/Green Basin Roundtable (YWGBRT) achieve the following goals as outlined in the Gunnison Basin Implementation Plan: Goal #2: “Protect and encourage agricultural uses of water in the YWG Basin within the context of private property rights.”; Goal # 5: “Quantify and protect environmental and recreational water uses at locations identified in the non-consumptive needs study for the YWGRT.” While also assisting the YWGBRT achieve Goal #3: “Encourage locally driven collaborative solutions”; and Goal #4: “Increase collaborations and partnerships with other YWG organizations that wish to promote water education” as outlined in the YWGBRT Education Action Plan. In addition, this effort assists Colorado in achieving several goals as outlined in Colorado’s Water plan, such as:

Section 6.6 Environmental and Recreational Projects and Methods “Support the development of multipurpose projects and methods that benefit environmental and recreational water needs as well as water needs for communities or agriculture”, and “Understand, protect, maintain, and improve conditions of streams, lakes, wetlands, and riparian areas to promote self-sustaining fisheries and functional riparian and wetland habitat to promote long-term sustainability and resiliency”; Section 9.5 Outreach, Education and Public Engagement “Colorado’s Water Plan provides technical and financial assistance for high-quality, balanced, and grassroots water education and outreach efforts that inform Coloradans about issues so that they may engage in determining Colorado’s water future.”

Issues/Additional Needs: No issues or additional needs have been identified.

Eligibility Requirements: The application meets requirements of all eligibility components: General Eligibility, Entity Eligibility, Water Activity Eligibility, and Eligibility Based on Match Requirements.

Evaluation Criteria: This activity has undergone review and evaluation and staff has determined that it satisfies the Evaluation Criteria. Please refer to Basin Roundtable Chair’s Recommendation Letter and the WSRF Grant Application for applicant’s detailed response.

Funding Summary/Matching Funds:

<u>Funding Source</u>	<u>Cash</u>	<u>In-kind</u>	<u>Total</u>	<u>Status</u>
Moffat County	\$15,000	\$1,500	\$16,500	Secured
Routt County	\$15,000	\$1,500	\$16,500	Secured
University of Wyoming	\$12,572	\$0	\$12,572	Secured
The Nature Conservancy	\$0	\$3,000	\$3,000	Secured
Yampa River Leafy Spurge Project Volunteers	\$0	\$20,000	\$20,000	Secured
BLM – Little Snake Field Office	\$0	\$2,250	\$2,250	Secured
NPS – Dinosaur National Monument	\$0	\$2,250	\$2,250	Secured
CPW – Yampa River State Park & Wildlife Area	\$0	\$1,500	\$1,500	Pending
CDA – Conservation Div/Biological Control Program	\$0	\$2,000	\$2,000	Secured
Sub-total	\$42,572	\$34,000	\$76,572	
WSRF Yampa/White/Green Basin Account	\$89,000	n/a	\$89,000	Secured
Total Project Costs	\$131,572	\$34,000	\$165,572	

CWCB Project Manager: Craig Godbout



July 26, 2018

Craig Godbout
Colorado Water Conservation Board
1313 Sherman St., Room 718
Denver, CO 80203

Dear Craig Godbout,

At our July 11th meeting, the Yampa White Green Basin Roundtable voted to approve the funding of the Yampa River Leafy Spurge Project out of basin funds, in the amount of \$89,000. The total cost of this project is \$165,000. Matching cash = \$42,572 (26%). Matching in-kind = \$33,000 (20%). Total match is 46%. There were two votes in opposition: Steve Hinkemeyer voted in opposition because he felt it was unclear from the paperwork that was handed out at the meeting (CWCB grant form) what involvement the private landowners were committing to. Alden Vanden-Brink voted in opposition as well, citing similarly that he felt private landowners and ranchers should be participating in a greater fashion.

The majority of the voting members present at the meeting felt that the applicant had improved the application and scope of the project significantly since coming before the Board ten months ago. The Yampa White Green Basin Roundtable (YWGBR) enthusiastically supports the project's goal of researching and developing a solution of controlling leafy spurge, especially along waterways, the vector that spreads the seed. If the group is successful in achieving this goal, the outcome will benefit all of Colorado – public and private lands, and the western US where the noxious weed is present, but not yet out of control.

The applicant is found eligible according to CWCB guidelines, and the non-structural project assists the YWGBR in meeting needs identified in the YWGBIP, the YWGB PEPO Goals, and the Colorado Water Plan (details on pages 6-7 of the grant application).

Please do not hesitate to contact me with any questions, and thank you for your consideration of this request.

Sincerely,

A handwritten signature in black ink, appearing to read 'JB', is written over a horizontal line.

Jackie Brown

Yampa White Green Basin Roundtable, Chair



Last Update: August 3, 2017

Colorado Water Conservation Board

Water Supply Reserve Fund Grant Application

Instructions

All WSRF grant applications shall conform to the current [2016 WSRF Criteria and Guidelines](#).

To receive funding from the WSRF, a proposed water activity must be approved by a Roundtable(s) **AND** the Colorado Water Conservation Board (CWCB). The process for Roundtable consideration and recommendation is outlined in the 2016 WSRF Criteria and Guidelines. The CWCB meets bimonthly according to the schedule on page 2 of this application.

If you have questions, please contact the current CWCB staff Roundtable liaison:

Arkansas

Ben Wade
ben.wade@state.co.us
303-866-3441 x3238

Gunnison | North Platte | South Platte | Yampa/White

Craig Godbout
craig.godbout@state.co.us
303-866-3441 x3210

Colorado | Metro | Rio Grande | Southwest

Megan Holcomb
megan.holcomb@state.co.us
303-866-3441 x3222

WSRF Submittal Checklist (Required)

X	I acknowledge this request for funding was recommended for CWCB approval by the sponsoring Basin Roundtable(s).
X	I acknowledge I have read and understand the 2016 WSRF Criteria and Guidelines .
X	I acknowledge the Grantee will be able to contract with CWCB using the Standard Contract . ⁽¹⁾
Exhibit A	
X	Statement of Work ⁽²⁾ (Word – see Exhibit A Template)
X	Budget & Schedule ⁽²⁾ (Excel Spreadsheet – see Exhibit A Template)
	Letters of Matching and/or Pending 3 rd Party Commitments ⁽²⁾
Exhibit C	
X	Map ⁽²⁾
	Photos/Drawings/Reports
	Letters of Support
	Certificate of Insurance ⁽³⁾ (General, Auto, & Workers' Comp.)
Contracting Documents	
	Certificate of Good Standing ⁽³⁾
	W-9 ⁽³⁾
	Independent Contractor Form ⁽³⁾ (If applicant is individual, not company/organization)
	Electronic Funds Transfer (ETF) Form ⁽³⁾

(1) Click "Grant Agreements". For reference only/do not fill out or submit/required for contracting

(2) Required with application if applicable.

(3) Required for contracting. While optional at the time of this application, submission can expedite contracting upon CWCB Board approval.

Last Update: August 3, 2017

Schedule		
CWCB Meeting	Application Submittal Dates	Type of Request
January	December 1	Basin Account; BIP
March	February 1	Basin/Statewide Account; BIP
May	April 1	Basin Account; BIP
July	June 1	Basin Account; BIP
September	August 1	Basin/Statewide Account; BIP
November	October 1	Basin Account/BIP

Desired Timeline	
Desired CWCB Hearing Month:	September
Desired Notice to Proceed Date:	January 1, 2019

Water Activity Summary		
Name of Applicant	Friends of the Yampa (FOTY)	
Name of Water Activity	Yampa River Leafy Spurge Project—Integrated Management & Predictive Modelling—Research Component	
Approving Roundtable(s)	Basin Account Request(s) ⁽¹⁾	
Yampa-White-Green		
Basin Account Request Subtotal	\$89,000	
Statewide Account Request ⁽¹⁾	\$0	
Total WSRF Funds Requested (Basin & Statewide)	\$89,000	
Total Project Costs	\$165,000	

(1) Please indicate the amount recommended for approval by the Roundtable(s)



Last Update: August 3, 2017

Grantee and Applicant Information	
Name of Grantee(s)	Friends of the Yampa (Yampa River Leafy Spurge Project)
Mailing Address	Box 771654, Steamboat Springs, CO 80477
FEIN	27-3657002
Grantee's Organization Contact ⁽¹⁾	Kent Vertrees
Position/Title	President
Email	kent@friendsoftheyampa.com
Phone	970-879-5188
Grant Management Contact ⁽²⁾	Tamara Naumann
Position/Title	Yampa River Leafy Spurge Project Coordinator
Email	williapa@toast.net
Phone	970-620-0182
Name of Applicant (if different than grantee)	
Mailing Address	
Position/Title	
Email	
Phone	

(1) Person with signatory authority

(2) Person responsible for creating reimbursement invoices (Invoice for Services) and corresponding with CWCB staff.

Description of Grantee
Provide a brief description of the grantee's organization (100 words or less).
<p>The Yampa River Leafy Spurge Project (YRLSP) engages private land owners, federal, state and local government agencies, educational, environmental and recreation organizations and interested individuals, who share a concern for the economic and ecological integrity of the Yampa Valley. We are working together to establish an effective program of integrated management for leafy spurge—an emerging threat to our regional agricultural economy and riparian watershed health.</p> <p>Friends of the Yampa [501(c)(3) non-profit fiscal agent for YRLSP] is dedicated to protecting and enhancing the environmental and recreational integrity of the Yampa River and its tributaries, through stewardship, advocacy, education and partnerships.</p>



Last Update: August 3, 2017

Type of Eligible Entity (check one)	
	Public (Government): municipalities, enterprises, counties, and State of Colorado agencies. Federal agencies are encouraged to work with local entities. Federal agencies are eligible, but only if they can make a compelling case for why a local partner cannot be the grant recipient.
	Public (Districts): authorities, Title 32/special districts (conservancy, conservation, and irrigation districts), and water activity enterprises
	Private Incorporated: mutual ditch companies, homeowners associations, corporations
	Private Individuals, Partnerships, and Sole Proprietors: are eligible for funding from the Basin Accounts but not for funding from the Statewide Account.
X	Non-governmental organizations: broadly, any organization that is not part of the government
	Covered Entity: as defined in Section 37-60-126 Colorado Revised Statutes

Type of Water Activity (check one)	
X	Study
	Implementation

Category of Water Activity (check all that apply)		
X	Nonconsumptive (Environmental)	
	Nonconsumptive (Recreational)	
X	Agricultural	
	Municipal/Industrial	
	Needs Assessment	
X	Education & Outreach	
X	Other	Explain: This project speaks directly to 2 of the Y-W-G BRT's 8 BIP goals: <ul style="list-style-type: none"> • Protect and encourage agricultural uses of water in the YWG Basin.... • Quantify and protect non-consumptive water uses.

Location of Water Activity	
Please provide the general county and coordinates of the proposed activity below in decimal degrees . The Applicant shall also provide, in Exhibit C, a site map if applicable.	
County/Counties	Moffat and Routt Counties—Riparian habitat associated with the Yampa River and its tributaries (map attached as Exhibit C)
Latitude	
Longitude	

Last Update: August 3, 2017

Water Activity Overview

Please provide a summary of the proposed water activity (200 words or less). Include a description of the activity and what the WSRF funding will be used for specifically (e.g. studies, permitting, construction). Provide a description of the water supply source to be utilized or the water body affected by the activity. Include details such as acres under irrigation, types of crops irrigated, number of residential and commercial taps, length of ditch improvements, length of pipe installed, area of habitat improvements. If this project addresses multiple purposes or spans multiple basins, please explain. The Applicant shall also provide, in Exhibit A, a detailed Statement of Work, Budget, and Schedule.

Leafy spurge is a Eurasian plant accidentally introduced to North America in the early 19th century. It aggressively invades riparian and upland plant communities, including agricultural lands. Millions of acres are affected in 29 states. Leafy spurge is listed among the top 25 invasive terrestrial species in a recent (2018) report by the Western Governors Association.

The Yampa River and its associated agricultural water delivery systems are spreading leafy spurge seeds downstream from a large infestation that has occupied floodplain areas between Hayden and Craig for several decades. Since the 2011 high water run-off season, an exponential increase in the leafy spurge population has been observed in riparian habitat along the Yampa River. Riparian habitat quality and agricultural productivity are actively being degraded downstream for 166 miles to the confluence with the Green River. Tributary streams are also affected (e.g., Little Snake River, Fortification Creek, and Milk Creek).

This project will provide information necessary for development of effective and sustainable management programs for riparian environments in the Yampa River Basin. It will support needed scientific work, engage local youth, and build on local knowledge and relationships as we strive to protect both agricultural and environmental water uses for our future.

Measurable Results

To catalog measurable results achieved with WSRF funds please provide any of the following values.

	New Storage Created (acre-feet)	
	New Annual Water Supplies Developed or Conserved (acre-feet), Consumptive or Nonconsumptive	
	Existing Storage Preserved or Enhanced (acre-feet)	
	Length of Stream Restored or Protected (linear feet)	
	Efficiency Savings (indicate acre-feet/year OR dollars/year)	
	Area of Restored or Preserved Habitat (acres)	
	Length of Pipe/Canal Built or Improved	
X	Other	Explain: The results of this study will set a course for reducing seed load of a damaging invasive plant in the river and associated agricultural water delivery systems, as part of a long-term strategy for protecting riparian habitat, water quality and agricultural productivity.

Last Update: August 3, 2017

Water Activity Justification

Provide a description of how this water activity supports the goals of [Colorado's Water Plan](#), the most recent [Statewide Water Supply Initiative](#), and the respective [Roundtable Basin Implementation Plan and Education Action Plan](#) ⁽¹⁾. The Applicant is required to reference specific needs, goals, themes, or Identified Projects and Processes (IPPs), including citations (e.g. document, chapters, sections, or page numbers).

For applications that include a request for funds from the Statewide Account, the proposed water activity shall be evaluated based upon how well the proposal conforms to Colorado's Water Plan criteria for state support (CWP, Section 9.4, pp. 9-43 to 9-44;) (Also listed pp. 4-5 in [2016 WSRF Criteria and Guidelines](#)).

This project supports the following goals and objectives of the:

Colorado Water Plan

Section 6.5 Municipal, industrial, and agricultural infrastructure projects and methods

"Colorado's Water Plan encourages the use of grassroots efforts to identify and implement projects and methods to meet community and agricultural water needs and achieve . . . develop(ment) and implement(ation) of policies and strategies that support meaningful agricultural viability statewide."

Section 6.6 Environmental and Recreational Projects and Methods

"Support the development of multipurpose projects and methods that benefit environmental and recreational water needs as well as water needs for communities or agriculture."

"Understand, protect, maintain, and improve conditions of streams, lakes, wetlands, and riparian areas to promote self-sustaining fisheries and functional riparian and wetland habitat to promote long-term sustainability and resiliency."

Section 9.5 Outreach, Education and Public Engagement

"Colorado's Water Plan provides technical and financial assistance for high-quality, balanced, and grassroots water education and outreach efforts that inform Coloradoans about issues so that they may engage in determining Colorado's water future."

Statewide Water Supply Initiative (SWSI)

The YRLSP is a reflection of the very same locally driven collaborative process for solving problems as the Basin Roundtable process envisioned in the Statewide Water Supply Initiative. In the Yampa Basin, the stakeholders are many of the same people and interests. Protecting and preserving a vital and vibrant agricultural economy and river-based ecosystem are at the heart of both efforts. The YRLSP views the YWG Roundtable as a natural ally and partner in keeping leafy spurge from becoming a scourge in our basin.

Yampa/White/Green Basin Implementation Plan (BIP)

BIP Goal #2: "*Protect and encourage agricultural uses of water* in the YWG Basin within the context of private property rights."

BIP Goal # 5: "Quantify and *protect environmental and recreational water uses* at locations identified in the non-consumptive needs study for the YWGRT."

YWG PEPO Goal #3: "Encourage locally driven collaborative solutions."

YWG PEPO Goal #4: "Increase collaborations and partnerships with other YWG organizations that wish to promote water education."

The YRLSP is a grassroots effort that recognizes the relationships between water, leafy spurge distribution in the Yampa Basin and long-term sustainability of both riparian ecosystem health and



Last Update: August 3, 2017

Water Activity Justification

agricultural productivity, and is working with many partners to develop a comprehensive strategy for mitigating the threat from leafy spurge. The efforts of the YRLSP are undertaken primarily for the public benefits that accrue from protecting public land, water quality and the regional agricultural economy, and from fostering a more informed constituency.

(1) Access Basin Implementation Plans or Education Action Plans from Basin drop down menu.

Matching Requirements: Basin Account Requests

Basin (only) Account grant requests require a 25% match (cash and/or in-kind) from the Applicant or 3rd party and shall be accompanied by a **letter of commitment** as described in the 2016 WSRF Criteria and Guidelines (submitted on the contributing entity's letterhead). Attach additional sheet if necessary.

Contributing Entity	Amount and Form of Match (note cash or in-kind)
Moffat County (\$7,500 per year, based on funds availability)	(cash) \$ 15,000
Moffat County (\$750 per year—labor and supplies)	(in-kind) \$ 1,500
Routt County (\$7,500 per year, based on funds availability)	(cash) \$ 15,000
Routt County (\$750 per year—labor and supplies)	(in-kind) \$ 1,500
University of Wyoming (half of tuition for 2 graduate students for 2 years)	(cash) \$ 12,572
The Nature Conservancy (housing at Carpenter Ranch for graduate students and in-kind labor)	(in-kind) \$ 3,000
Yampa River Leafy Spurge Project (volunteer labor @ \$20/hr)	(in-kind) \$ 20,000
BLM—Little Snake Field Office (labor and supplies)	(in-kind) \$ 2,250
NPS—Dinosaur National Monument (labor and supplies)	(in-kind) \$ 2,250
CPW—Yampa River State Park and Yampa River State Wildlife Area (labor and supplies)	(in-kind) \$ 1,500
CDA—Conservation Division/Biological Control Program (labor and biocontrol insects)	(in-kind) \$ 2,000
Total Match	\$ 76,572
If you requested a Waiver to the Basin Account matching requirements, indicate the percentage you wish waived.	

Matching Requirements: Statewide Account Requests

Statewide Account grant requests require a 50% match as described in the 2016 WSRF Criteria and Guidelines. A minimum of 10% match shall be from Basin Account funds (cash only). A minimum of 10% match shall be provided by the applicant or 3rd party (cash, in-kind, or combination). The remaining 30% of the required match may be provided from any other source (Basin, applicant, or 3rd



Last Update: August 3, 2017

Matching Requirements: Statewide Account Requests	
party) and shall be accompanied by a letter of commitment . Attach additional sheet if necessary.	
Contributing Entity	Amount and Form of Match (note cash or in-kind):
Total Match	\$
If you requested a Waiver to the Statewide Account matching, indicate % you wish waived. (Max 50% reduction of requirement).	

Related Studies
Please provide a list of any related studies, including if the water activity is complimentary to or assists in the implementation of other CWCB programs.
At this time, we believe this proposed study is unique. The activities proposed are consistent with and in support of other CWCB programs, including Watershed Protection and Restoration, Nonconsumptive Needs, Colorado Healthy Rivers, Invasive Phreatophyte Control.

Previous CWCB Grants
List all previous or current CWCB grants (including WSRF) awarded to both the Applicant and Grantee. Include: 1) Applicant name; 2) Water activity name; 3) Approving RT(s); 4) CWCB board meeting date; 5) Contract number or purchase order
None.

Tax Payer Bill of Rights
The Tax Payer Bill of Rights (TABOR) may limit the amount of grant money an entity can receive. Please describe any relevant TABOR issues that may affect the applicant.
We are not aware of any TABOR issues affecting this application.



Last Update: January 9, 2018

Colorado Water Conservation Board	
Water Supply Reserve Fund	
<u>Exhibit A - Statement of Work</u>	
Date:	30 July 2018
Water Activity Name:	YAMPA RIVER LEAFY SPURGE PROJECT—Integrated Management & Predictive Modeling—Research Component
Grant Recipient:	Friends of the Yampa (FOTY)
Funding Source:	WSRF – Yampa-White-Green Basin Account
Water Activity Overview: (Please provide brief description of the proposed water activity (no more than 200 words). Include a description of the overall water activity and specifically what the WSRF funding will be used for.)	
<p>Leafy spurge is a Eurasian plant accidentally introduced to North America in the early 19th century. It aggressively invades riparian and upland plant communities, including agricultural lands. Millions of acres are affected in 29 states. Leafy spurge is listed among the top 25 invasive terrestrial species in a recent (2018) report by the Western Governors Association.</p> <p>The Yampa River and its associated agricultural water delivery systems are spreading leafy spurge seeds downstream from a large infestation that has occupied floodplain areas between Hayden and Craig for several decades. Since the 2011 high water run-off season, an exponential increase in the leafy spurge population has been observed in riparian habitat along the Yampa River. Riparian habitat quality and agricultural productivity are actively being degraded downstream for 166 miles to the confluence with the Green River. Tributary streams are also affected (e.g., Little Snake River, Fortification Creek, and Milk Creek).</p> <p>This project will provide information necessary for development of effective and sustainable management programs for riparian environments in the Yampa River Basin. It will support needed scientific work, engage local youth, and build on local knowledge and relationships as we strive to protect both agricultural and environmental water uses for our future.</p>	



Last Update: January 9, 2018

Objectives: (List the objectives of the project)

- Work with stakeholders and the University of Wyoming to develop a robust, publicly available spatial data set documenting the current distribution of leafy spurge in riparian habitat associated with the Yampa River, tributary streams, and irrigation water delivery systems in the Yampa Valley.
- Utilize remote sensing technology to direct and enhance monitoring and mapping efforts.
- Develop a susceptibility model to predict where new leafy spurge invasion is most likely in Moffat and Routt Counties.
- Quantify the current seed load produced by leafy spurge populations in 4 (possibly 5) specific riparian habitats along the Yampa River and associated tributaries.
- Study and evaluate best integrated management practices for reducing cover and seed production of leafy spurge in diverse riparian systems in the Yampa Valley.
- Develop a map of known and potential leafy spurge biological control sites in the Yampa Valley, and work with the Colorado Department of Agriculture to develop kid-friendly monitoring protocols in anticipation of a future adopt-a-spurge-bug-patch program for engagement of local 4-H clubs, school science classes, and other youth organizations, aimed at improving understanding and appreciation for the relationships between the river, associated riparian habitat, agricultural water delivery systems, and invasive weeds.

Tasks

Task 1 – Develop a watershed scale management framework for leafy spurge in the Yampa Valley through mapping and predictive modelling

Description of Task:

Management decisions in many weed invasions are often haphazard and based on incomplete or outdated location information. Haphazard management of an invasive species without regard for landscape distribution often results in less than optimal results. Reinvasion frequently occurs shortly after active management ends, negating any long-term benefit to the landscape. By utilizing spatial distribution data, best management practices (BMPs) can be developed and implemented to more effectively reduce the impact of current invasions and prevent or slow future spread at a landscape scale. Knowledge of the spatial distribution of the current invasion can be used to identify which populations represent the greatest risk to the overall landscape. The Yampa River Leafy Spurge Project (YRLSP) advocates for managing leafy spurge in the Yampa Valley to prevent or reduce the spread and establishment of new populations and recognizes that having a map that clearly delineates current leafy spurge extent is critical to this mission. High quality and accessible spatial information will assist managers in determining which populations are highest in priority and acting as likely “source” populations that require immediate and aggressive management attention.

Remote sensing is one tool that can be used to direct scouting/monitoring efforts to be more effective and efficient. Vegetation reflects unique spectral signatures that can be detected from satellite or other remote



Last Update: January 9, 2018

Tasks

methods. These unique signatures can possibly allow for differentiation, in some cases down to the species level. For example, the uniform yellow flower color of a leafy spurge invasion can be unique enough to differentiate it from surrounding vegetation. Maps can be developed using this technology to indicate the probability that an area is currently invaded by leafy spurge.

In addition facilitating short-term management decisions, spatial data can also help in developing invasion susceptibility models capable of predicting potential for future spread and invasion. These models utilize environmental conditions associated with known populations to predict where in the landscape we might expect future invasions to occur. These models identify environmentally similar areas and assign susceptibility ratings at a landscape scale, which enables land owners/managers to assess future risk and apply strategic management actions. A susceptibility model can be utilized to direct monitoring efforts in susceptible areas and to educate the public on the importance of timely and effective invasive plant management.

Task Schedule:

Development of Field Mapping Protocols:

1. YRLSP volunteers and Moffat/Routt counties are currently working on this and will continue through the duration of the project, mostly with volunteer labor.

Graduate Student Recruitment:

2. Upon notification of funding, with intended enrollment in January 2019.

Research Project/Student Activities:

3. Spring 2019
 - a. Obtain satellite imagery
 - b. Collect local reflectance signature data of leafy spurge in Yampa Valley
 - c. Consolidate presence/absence data of Yampa Valley leafy spurge
 - d. Begin modeling susceptibility utilizing proxy data
4. Summer 2019
 - a. Begin modeling susceptibility utilizing local data
 - b. Create remote detection map and remotely ground truth
5. Fall 2019
 - a. Ground truth remote detection map
 - b. Complete proxy susceptibility (future invasion) map
6. Winter 2019/Spring 2020
 - a. Complete local susceptibility (current) map

Final Products

7. Spring 2021
 - a. Master's Thesis
 - b. Final Report to YWG BRT and CWCB



Last Update: January 9, 2018

Tasks
<p>Method/Procedure:</p> <p>Current mapping efforts utilize MapItFast software (both counties use this platform). Spatial and tabular data will be stored in a format that is compatible with both EDDMaps (required by the State of Colorado Department of Agriculture) and ArcGIS (for availability to anyone). YRLSP volunteers and Moffat/Routt County are currently working out details of field mapping protocols. The BLM will utilize these protocols, as they are developed. Moffat County and YRLSP have agreed to store data and make it available. University of Wyoming will utilize mapping data to develop predictive models for future spread of leafy spurge.</p> <p>Although mapping efforts have begun, the current distribution of leafy spurge in the Yampa Valley is poorly known. This makes it difficult to predict where leafy spurge is likely to spread, although it is clear that water is a primary vector for seed dispersal. Remote sensing can be used to support current mapping and monitoring efforts. Current satellite imagery will be analyzed using proprietary machine learning algorithms to develop a leafy spurge presence probability map. This map will then be remotely ground-truthed with current extent mapping to identify how effective the model was at detecting known invasions. Then, field ground-truthing will be used on prospective undetected populations to identify how useful the map is overall.</p> <p>Utilizing the most up to date leafy spurge spatial extent based on on-going mapping efforts, a susceptibility model will be developed for the entirety of the Yampa River Watershed. Importantly, leafy spurge absence data (i.e., known areas where leafy spurge is not) will also be included in the model to create a more confident result. This current extent data will be inputted into a computational model along with abiotic factors (e.g., slope, elevation, aspect, average temperature) to build this susceptibility map. The product will be a heat map indicating areas that are most and least susceptible to invasion.</p> <p>The current known extent of leafy spurge in the Yampa Valley is indicative of a relatively young invasion. The current spatial extent does not represent what may happen if invasion begins to leave the river corridor, as examples from several Wyoming counties suggest. Thus, we intend to use a much more established invasion as proxy data to predict what a future invasion could look like in the Yampa Valley. Specific counties in Wyoming have leafy spurge invasions that have been established for a longer period of time and have spread beyond the riparian areas of the watershed and into high value agronomic land. These regions have similar elevations to the Yampa River watershed making them ideal surrogates. Another susceptibility model will be developed for the Yampa River watershed utilizing Wyoming data to show what an invasion could look like into the future if management actions are not taken.</p>
<p>Grantee Deliverable: (Describe the deliverable the grantee expects from this task)</p> <ol style="list-style-type: none">1. Master's Thesis (University of Wyoming-Spring of 2021)2. Spatial database that will be made publicly available3. Future data needs and management direction are identified
<p>CWCB Deliverable: (Describe the deliverable the grantee will provide CWCB documenting the completion of this task)</p> <ol style="list-style-type: none">1. Final Report to Y-W-G Roundtable and CWCB, including an executive summary, documenting results of the study and distribution of data to stakeholders.



Last Update: January 9, 2018

Tasks

Task 2 – Identify best integrated management practices for reducing leafy spurge seed production in four (possibly 5) specific riparian habitat types in the Yampa Valley.

Description of Task:

Leafy spurge has been identified as one of the top problematic invasive species across the western US in a recent report by the Western Governors Association because of its ability to spread rapidly and adversely affect productivity of invaded lands, both for agriculture and wildlife. Leafy spurge can outcompete other vegetation, resulting in a monoculture, and leading in some cases to unusable land. It produces a milky compound making it undesirable and/or toxic to most wildlife and classes of livestock. Leafy spurge is a water-loving species that most often establishes first in low-lying riparian areas, where it aggressively displaces desirable native vegetation—valued resource identified in the YWG Basin Implementation Plan.

Leafy spurge is an extremely difficult species to manage effectively and many of our standard herbicide management options have proven generally unsuccessful. Limited herbicide options exist for sensitive riparian habitat, and many of these options, when used alone, impose significant collateral damage on surrounding vegetation, while failing to adequately control leafy spurge. Repeated and/or widespread use of herbicides can pose a risk to water quality, as well. Biocontrol agents, although successful in ideal conditions, are inconsistent in their effectiveness and tend to work best in upland sites. Therefore, in many situations, the best solution is to inhibit the spread of leafy spurge in the first place.

Although leafy spurge prefers moist soils, it is not restricted to riparian habitat and is capable of escaping the river corridor when populations reach threshold levels. Once established in cropland, eradication becomes increasingly difficult, with obvious negative impacts on the economic value of land associated with a particular water source. Lands bordering the Yampa River comprise some of the most productive agricultural land in the region, yet, this proximity to the river, which functions as an effective vector for seed dispersal, renders these lands highly vulnerable to leafy spurge invasion. A worst-case scenario of escape from riparian to upland habitat has occurred in some nearby Wyoming counties. Previously valuable arable land has been converted into unusable leafy spurge that cannot be eradicated. The Wyoming invasion has become so widespread that recent conversations have suggested abandoning management of lands invaded by leafy spurge. This worst-case scenario can (and should) be avoided in the Yampa Valley. Preventing the spread of leafy spurge to prime agricultural lands is critical to ensuring we protect both riparian habitat and agricultural land and the economic and environmental resource value they provide.

Because eradication is nearly impossible for well-established invasions, reducing seed sources contributing to the spread of leafy spurge to new areas is the most responsible use of management resources. Our goal is to protect the river corridor, irrigated agricultural lands, and associated uplands. Leafy spurge utilizes projectile capsules that rupture and spray seed many feet away from the parent plant. Thus, seed produced by riparian populations of leafy spurge can disperse seed directly in to the water, allowing movement of the species downstream. Combined with periodic overbank flooding, which also entrains seed in to the river, this characteristic means of leafy spurge seed dispersal makes the Yampa River and its associated water distribution system a worrisome vector for new infestations downstream—both to new riparian habitats and to irrigated agricultural lands.

Last Update: January 9, 2018

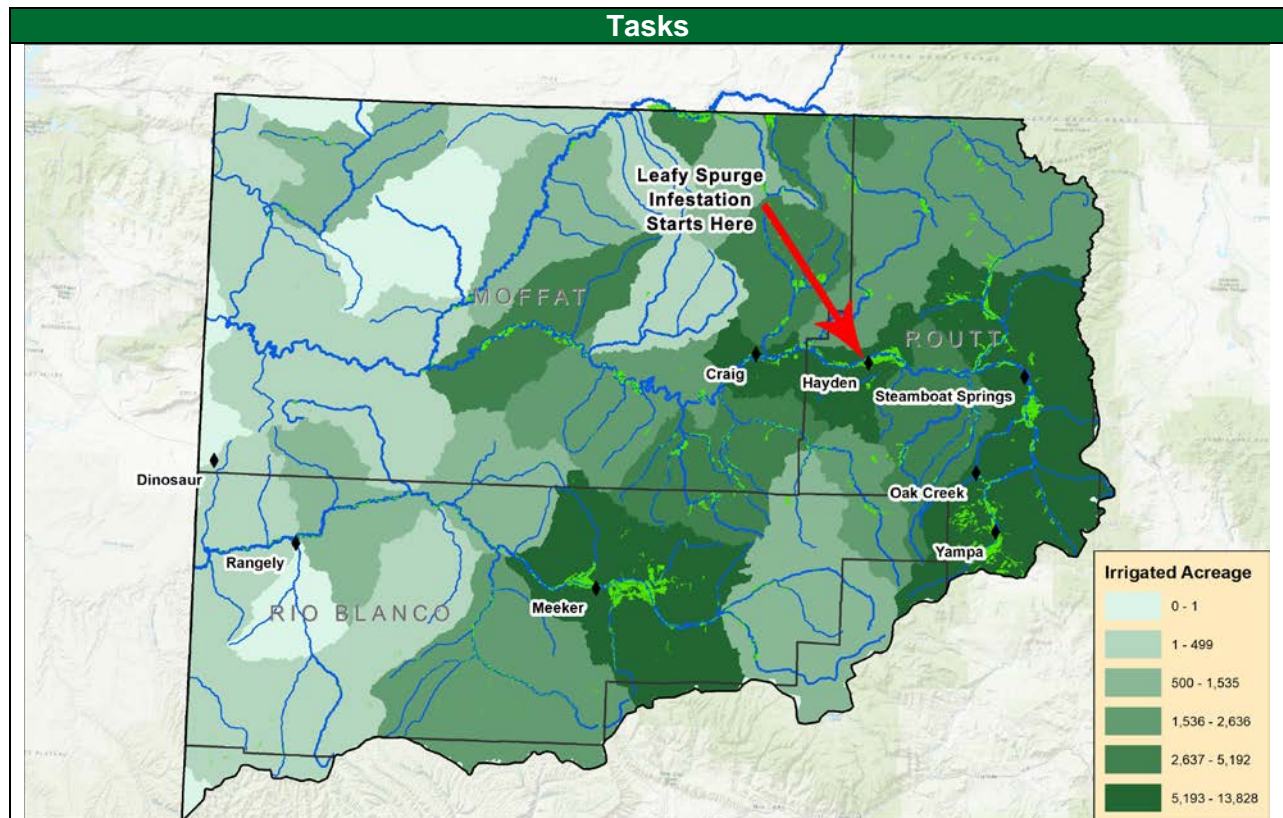


Figure 1: Irrigated acreage by sub-basin. Demand nodes are concentrated in the brightly-colored areas. The red arrow indicates the most upstream known leafy spurge infestation. New infestations have been documented from there downstream to beyond the confluence with the Green River, especially since the high-water event in 2011. (Source: 2010 irrigated acreage assessment and modeling information from the Colorado Decision Support System (CDSS))

Targeted grazing is one tool that may be effective for reducing seed load produced by existing leafy spurge infestations. Sheep and goats have unique digestive systems that can tolerate the toxins produced by leafy spurge. In fact, because leafy spurge is high-value forage, spurge-tolerant species like sheep and goat often display a preference for leafy spurge. Thus, carefully timed sheep and/or goat grazing may be a viable option for reducing seed production in areas that are compatible with this class of livestock. Much of the limited research looking at targeted grazing management practices was performed in the Northern Great Plains and is not necessarily directly translatable to the diverse landscape present in the Yampa Valley. This study will focus on local conditions and target riparian habitats where we have such limited options for herbicide use.

Four (possibly 5) specific riparian environments will be the focus for this work:

1. Riparian forest/woodland—seasonally flooded (Yampa River)
2. Riparian meadow—seasonally flooded (Yampa River)
3. Sparsely vegetated bars/beaches in active channel environments (Yampa River)
4. Tributary stream riparian habitat (possibly Fortification Creek or Fourmile Creek)
5. Optional (if time and resources are available) Irrigation ditch bank



Last Update: January 9, 2018

Tasks

Task Schedule:

Graduate Student Recruitment:

1. Upon notification of funding, with intended enrollment in January 2019.

Research Project/Student Activities:

2. Spring 2019
 - a. Identify Plot Locations
 - b. Work with YRLSP volunteers/land owners to install necessary temporary fencing
 - c. Begin early grazing treatments
3. Summer 2019
 - a. Begin late grazing treatments
4. Fall 2019
 - a. Apply herbicide treatments
 - b. Collect biomass, biodiversity, and seed production data
 - c. Begin analyzing data
5. Winter 2019
 - a. Complete data analysis and identify best integrated management practices
 - b. Produce extension publication on results
6. Spring 2020
 - a. Collect biomass, biodiversity, and seed production for 1-year post-treatment analysis
 - b. Integrate results in to previous conclusions, as appropriate

Final Products

7. Spring 2021
 - a. Master's Thesis
 - b. Final Report to YWG BRT and CWCB

Method/Procedure:

YRLSP partners will work with local stakeholders and the University of Wyoming (UWYO) to identify suitable sites to conduct the proposed field studies across the target habitat types. If a local livestock operator is interested in participating, the option exists to utilize local livestock. Otherwise, UWYO livestock will be used to accomplish the work.

To identify when targeted grazing will be most successful at 1) reducing leafy spurge density and seed production, and 2) retaining desirable species, two grazing timings will be utilized—early and late. Early grazing (approximately late April to early May depending on seasonality) is more likely to be injurious to the target plant but may not reduce seed production if leafy spurge is capable of still producing flowering structures after the grazing event. Late grazing (approximately August depending on seasonality) may be less likely to injure the target plant but may ensure seed production is more effectively limited. Post grazing data will be collected on these treatments to determine how effectively these timings reduce leafy spurge biomass and seed production.

Targeted grazing is not selective enough to adversely impact only the target species. The desirable resident plant community is also susceptible to injury from grazing. The goal of targeted grazing is to more greatly impact the target species when compared to the desirable community. If the inverse happens, then management is unsuccessful and may lead to further leafy spurge invasion. To monitor the effect of our timing treatments on the resident plant community, plant community biomass and diversity will also be collected to comparatively monitor the impact to the target and other species.

Preliminary results from another study examining integrated management of Dalmatian toadflax—another perennial large-statured forb invader—suggest the integration of herbicide and grazing can result in better control of the target species. Additionally, because leafy spurge infestations in the Yampa River corridor

Last Update: January 9, 2018

Tasks
<p>are currently primarily restricted to riparian areas, herbicide usage is a concern. Thus, the integration of grazing with reduced-rate herbicide applications could lead to greater reductions in seed production while also minimizing the herbicide applied. In this study, we will integrate low-dosage herbicide to reduce injury to surrounding vegetation and risk of leaching while still reducing leafy spurge seed production. Leafy spurge seed production, biomass, and cover will be monitored in response to the combined treatments to identify how effective our treatments are at reducing the spread and impact of leafy spurge.</p>
<p>Grantee Deliverable: (Describe the deliverable the grantee expects from this task)</p>
<ol style="list-style-type: none"> 1. Master's Thesis (University of Wyoming-Spring of 2021) 2. Extension publication recommending best integrated management practices for riparian settings 3. Future data needs and management direction are identified
<p>CWCB Deliverable: (Describe the deliverable the grantee will provide CWCB documenting the completion of this task)</p>
<ol style="list-style-type: none"> 1. Final Report to Y-W-G Roundtable and CWCB, including an executive summary, documenting results of the study and recommendations for future work.

Last Update: January 9, 2018

Tasks
Task 3 – 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.
Description of Task:
<p>Several species of flea beetles (<i>Aphthona</i> spp.) are available for use as biological control agents to manage leafy spurge. While it has been reported that previous releases of these insects in riparian areas have been unsuccessful in establishing viable populations, the Colorado Department of Agriculture (CDA) has had some success near Meeker in the past decade. It may be that we simply need to be more systematic and persistent in our efforts to establish viable flea beetle populations in the Yampa Valley. The first step toward revitalizing this effort is to produce a map of all known historical release sites in Moffat and Routt counties and to begin a systematic monitoring program. Labor is the limiting resource for accomplishment of this objective.</p> <p>The YRLSP is interested in working with the Colorado Department of Agriculture to develop a simple, kid-friendly monitoring protocol that could be used to engage youth in “adopting” and monitoring specific biocontrol release sites. This approach would be appropriate for 4-H clubs, school science classes, and other youth organizations. The intent is to integrate river and riparian ecosystem health, irrigation water delivery systems, agricultural systems, leafy spurge biology (interesting seed dispersal mechanism), invasive species ecology and management, and community service and learning.</p> <p>The Colorado Department of Agriculture has been approached and is interested in working with the Yampa River Leafy Spurge Project to establish viable biological control species for leafy spurge in the Yampa Valley. It may be that a combination of site characteristics must occur in close proximity to ensure successful establishment and long-term viability of biocontrol insect populations. Mapping, monitoring of historical release sites and consultation with experts in the next two years should help the YRLSP identify potential future release sites for biological control agents and determine whether viable biocontrol populations presently exist in the Yampa Valley.</p> <p>The YRLSP is already making progress in some of these areas, but with a small amount of funding for printing, materials and supplies, we would like to begin the youth engagement component by running several “adopt-a-bug-site” monitoring pilot projects. If this model is well-received, then we would be positioned to expand the effort as funds (from other sources) become available.</p>
Task Schedule:
<p>Generate a map of known biological control release sites:</p> <ol style="list-style-type: none"> 1. Winter 2018-Spring 2019 <ol style="list-style-type: none"> a. Gather existing information from Moffat and Routt counties, CPW and CDA. b. Create comprehensive map and database in ArcGIS/Access. <p>Develop a simple, kid-friendly monitoring protocol:</p> <ol style="list-style-type: none"> 2. Spring 2019 <ol style="list-style-type: none"> a. Work with CDA and other interested stakeholders to develop a draft protocol b. Identify 2-4 interested youth organizations willing to test the protocol 3. Summer 2019 <ol style="list-style-type: none"> a. Adopt and monitor 4. Fall 2019-Winter 2020 <ol style="list-style-type: none"> a. Analyze results and modify protocol b. Seek additional funding sources and approach additional youth organizations



Last Update: January 9, 2018

Tasks
<ul style="list-style-type: none">5. Summer 2020<ul style="list-style-type: none">a. Adopt and monitorb. Use new information to identify additional release sites6. Fall 2020<ul style="list-style-type: none">a. Analyze resultsb. Use results to identify best potential viable population areas <p>Final Products</p> <ul style="list-style-type: none">7. Spring 2021<ul style="list-style-type: none">a. Final Report to YWG BRT and CWCB
Method/Procedure:
<p>Map and associated data will be gathered from identified sources by YRLSP volunteers and stored in ArcGIS/Access formats for best availability to interested partners/stakeholders. YRLSP volunteer(s) will work with CDA and other interested stakeholders to develop the draft monitoring protocol.</p> <p>Insects are available from the Colorado Department of Agriculture at no cost.</p> <p>Local 4-H clubs will be approached first to implement pilot “adopt-a-bug-site” monitoring protocols.</p> <p>YRLSP volunteer(s) will look for additional funding sources to grow and sustain the program.</p>
Grantee Deliverable: (Describe the deliverable the grantee expects from this task)
<ul style="list-style-type: none">1. A comprehensive release site map and associated shapefiles/data.2. Youth engagement in helping to solve a problem that adversely affects our agricultural economy and our river and riparian resources.
CWCB Deliverable: (Describe the deliverable the grantee will provide CWCB documenting the completion of this task)
<p>Report to YWG Roundtable and CWCB, including an executive summary, documenting progress in developing biological control capability and youth involvement in grassroots management of leafy spurge in riparian and agricultural environments in the Yampa Valley.</p>

Budget and Schedule

Exhibit B - Budget and Schedule: This Statement of Work shall be accompanied by a combined [Budget and Schedule](#) that reflects the Tasks identified in the Statement of Work and shall be submitted to CWCB in excel format. A separate excel formatted Budget is required for engineering costs to include rate and unit costs.

Reporting Requirements

Progress Reports: The grantee shall provide the CWCB a progress report every 6 months, beginning from the date of issuance of a purchase order, or the execution of a contract. The progress report shall describe the status of the tasks identified in the statement of work, including a description of any major issues that have occurred and any corrective action taken to address these issues. The CWCB may withhold reimbursement until satisfactory progress reports have been submitted.



Last Update: January 9, 2018

Reporting Requirements

Final Report: At completion of the project, the grantee shall provide the CWCB a Final Report on the grantee's letterhead that:

- Summarizes the project and how the project was completed.
- Describes any obstacles encountered, and how these obstacles were overcome.
- Confirms that all matching commitments have been fulfilled.
- Includes photographs, summaries of meetings and engineering reports/designs.

Payments

Payment will be made based on actual expenditures, must include invoices for all work completed and must be on grantee's letterhead. The request for payment must include a description of the work accomplished by task, an estimate of the percent completion for individual tasks and the entire Project in relation to the percentage of budget spent, identification of any major issues, and proposed or implemented corrective actions.

The CWCB will pay the last 10% of the entire water activity budget when the Final Report is completed to the satisfaction of CWCB staff. Once the Final Report has been accepted, and final payment has been issued, the water activity and purchase order or contract will be closed without any further payment. Any entity that fails to complete a satisfactory Final Report and submit to CWCB within 90 days of the expiration of a purchase order or contract may be denied consideration for future funding of any type from CWCB.

Performance Requirements

Performance measures for this contract shall include the following:

(a) Performance standards and evaluation: Grantee will produce detailed deliverables for each task as specified. Grantee shall maintain receipts for all project expenses and documentation of the minimum in-kind contributions (if applicable) per the budget in Exhibit B. Per Grant Guidelines, the CWCB will pay out the last 10% of the budget when the final deliverable is completed to the satisfaction of CWCB staff. Once the final deliverable has been accepted, and final payment has been issued, the purchase order or grant will be closed without any further payment.

(b) Accountability: Per the Grant Guidelines full documentation of project progress must be submitted with each invoice for reimbursement. Grantee must confirm that all grant conditions have been complied with on each invoice. In addition, per the Grant Guidelines, Progress Reports must be submitted at least once every 6 months. A Final Report must be submitted and approved before final project payment.

(c) Monitoring Requirements: Grantee is responsible for ongoing monitoring of project progress per Exhibit A. Progress shall be detailed in each invoice and in each Progress Report, as detailed above. Additional inspections or field consultations will be arranged as may be necessary.

(d) Noncompliance Resolution: Payment will be withheld if grantee is not current on all grant conditions. Flagrant disregard for grant conditions will result in a stop work order and cancellation of the Grant Agreement.

Last Update: 10/17/17



COLORADO

Colorado Water
Conservation Board

Department of Natural Resources

Colorado Water Conservation Board

Water Supply Reserve Fund

EXHIBIT B - BUDGET AND SCHEDULE - Direct & Indirect (Administrative) Costs

Date: 10 June 2018

Water Activity Name: YAMPA RIVER LEAFY SPURGE PROJECT—Integrated Management & Predictive Modelling—Research Component

Grantee Name: Friends of the Yampa

<u>Task No.</u> ⁽¹⁾	<u>Description</u>	<u>Start Date</u> ⁽²⁾	<u>End Date</u>	<u>Matching Funds</u> (cash & in-kind) ⁽³⁾	<u>WSRF Funds</u> (Basin & Statewide combined) ⁽³⁾	<u>Total</u>
1	Develop a watershed scale management framework (for leafy spurge) through mapping and predictive modelling.	1-Jan-2019	30-Jun-2021	\$32,300	\$40,900	\$73,200
2	Identify best management practices for reducing leafy spurge seed production in four specific riparian habitat types in the Yampa Valley	1-Jan-2019	30-Jun-2021	\$22,300	\$40,800	\$63,100
3	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.	1-Jan-2019	30-Jun-2021	\$3,900	\$3,000	\$6,900
4	Grant administration	1-Jan-2019	30-Jun-2021	\$0	\$4,300	\$4,300
5	Interagency and partner coordination, support to research team, logistical support for mapping, etc.	1-Jan-2019	30-Jun-2021	\$17,500	\$0	\$17,500
Total				\$76,000	\$89,000	\$165,000

(1) The single task that include costs for Grant Administration must provide a labor breakdown (see Indirect Costs tab below) where the total WSRF Grant contribution towards that task does not exceed 15% of the total WSRF Grant amount.

(2) Start Date for funding under \$100K - 45 Days from Board Approval; Start Date for funding over \$100K - 90 Days from Board Approval.

(3) Round values up to the nearest hundred dollars.

• Reimbursement eligibility commences upon the grantee's receipt of a Notice to Proceed (NTP)

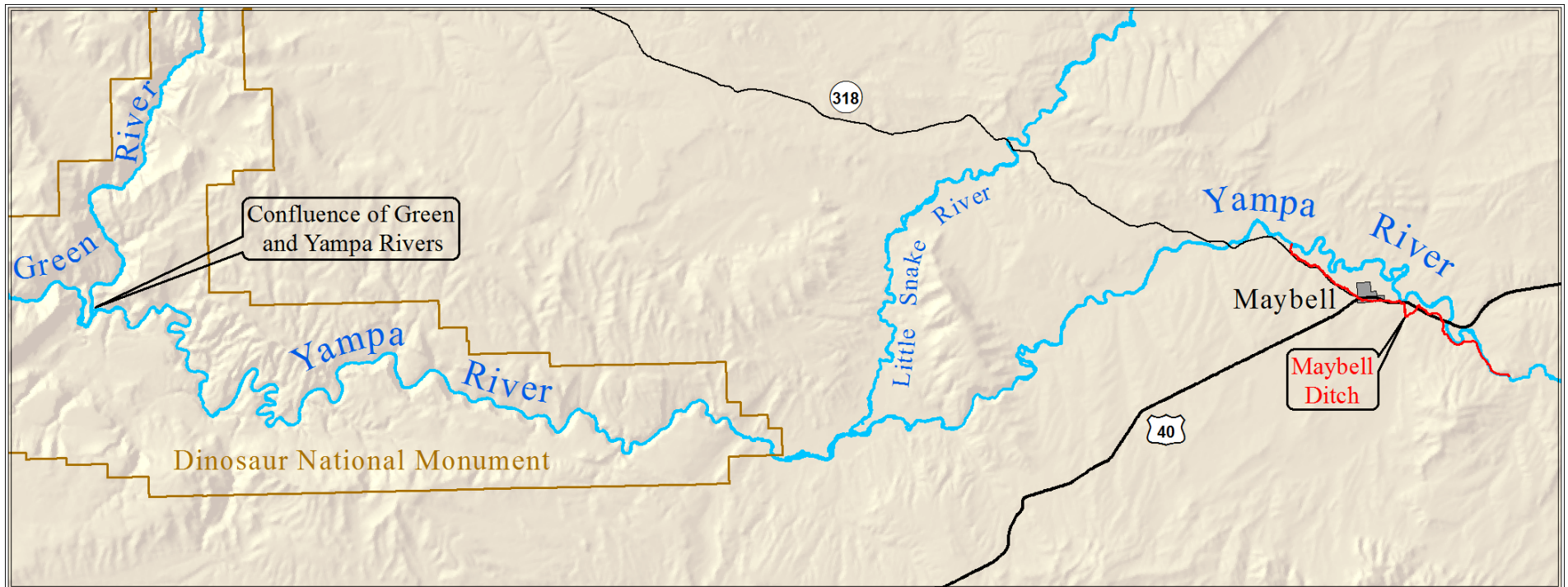
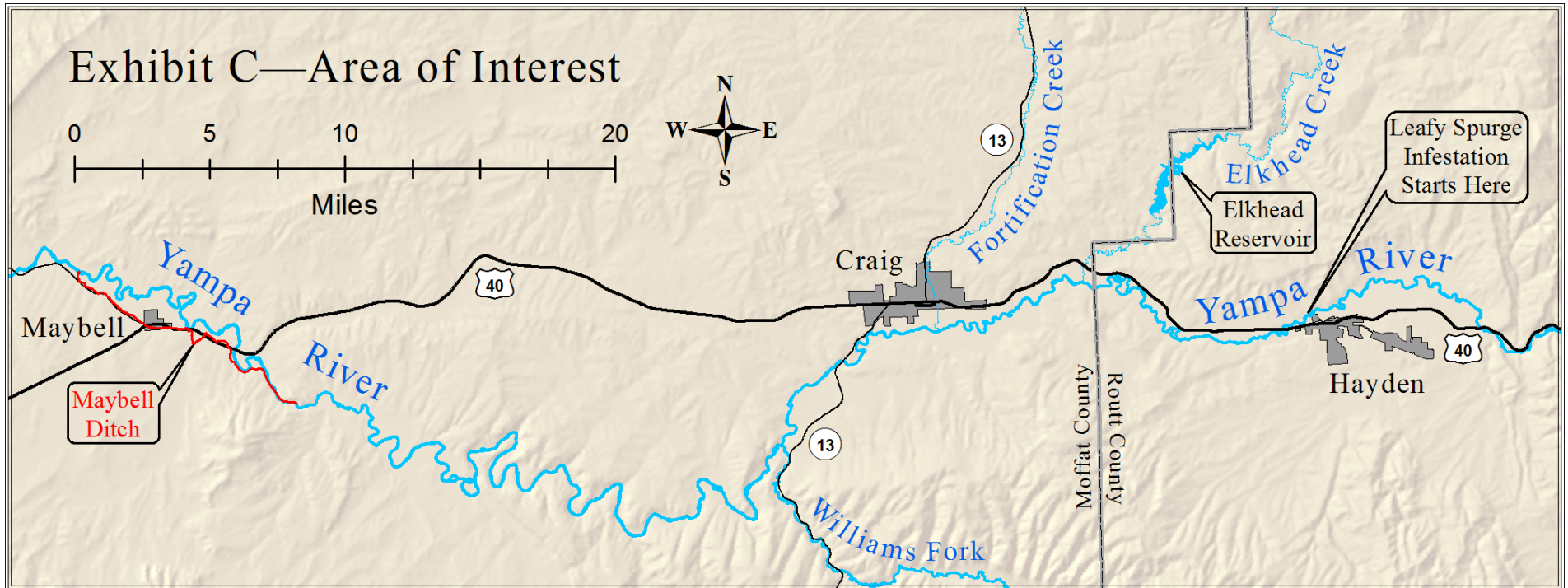
• NTP will not be accepted as a start date. Project activities may commence as soon as the grantee enters contract and receives formal signed State Agreement.

The CWCB will pay the last 10% of the entire water activity budget when the Final Report is completed to the satisfaction of the CWCB staff project manager. Once the Final Report has been accepted, the final payment has been issued, the water activity and purchase order (PO) or contract will be closed without any further payment. Any entity that fails to complete a satisfactory Final Report and submit to the CWCB with 90 days of the expiration of the PO or contract may be denied consideration for future funding of any type from the CWCB.

• Additionally, the applicant shall provide a progress report every 6 months, beginning from the date of contract execution

• Standard contracting procedures dictate that the Expiration Date of the contract shall be 5 years from the Effective Date.

Exhibit C—Area of Interest





United States Department of the Interior

BUREAU OF LAND MANAGEMENT
Little Snake Field Office
455 Emerson Street
Craig, Colorado 81625-1129



June 12, 2018

Yampa River Leafy Spurge Project Coordinator
c/o Friends of the Yampa
PO Box 771654
Steamboat Springs, CO 80477

Dear YRLSP,

This letter represents a pending commitment by the BLM-Little Snake Field Office to provide \$1,125 in-kind matching support toward the Yampa River Leafy Spurge Project application for a Yampa-White-Green Basin Roundtable-Water Supply Reserve Fund (WSRF) grant in support of a project entitled "Yampa River Leafy Spurge Project—Integrated Management and Predictive Modelling—Research Component." The support is to be provided between October 1, 2018 and September 30, 2019, if the YRLSP WSRF grant application is successful. We intend to support with a like amount of in-kind in 2020, subject to availability of funds and personnel.

Over the next two years, the BLM-Little Snake Field Office will provide in-kind support valued at \$2,250, which represents staff support, materials and supplies and other services devoted to the project, subject to availability of funds and personnel.

Sincerely,

Bruce Sillitoe
Field Office Manager



COLORADO
Department of Agriculture
Conservation Services Division

June 29, 2018

Yampa River Leafy Spurge Project Coordinator
c/o Friends of the Yampa
PO Box 771654
Steamboat Springs, CO 80477

Dear YRLSP,

This letter represents a pending commitment by the Colorado Department of Agriculture—Biological Control Program to provide \$ 1,000 in-kind matching support toward the Yampa River Leafy Spurge Project application for a Yampa-White-Green Basin Roundtable-Water Supply Reserve Fund (WSRF) grant in support of a project entitled “Yampa River Leafy Spurge Project—Integrated Management and Predictive Modelling—Research Component.” The support is provided between July 1, 2018 and June 30, 2019, if the YRLSP WSRF grant application is successful. We intend to support with a like amount of in-kind in 2020, subject to availability of funds.

Over the next two years, the Colorado Department of Agriculture would like to provide in-kind support valued at \$2,000, which represents staff support for YRLSP efforts to develop a leafy spurge biocontrol release site map for Moffat and Routt Counties and for developing a kid-friendly monitoring protocol suitable for use in a youth engagement project to “adopt-a-bug-patch” with 4-H clubs and other local youth organizations. Biological control insects will also be made available for release, if suitable sites can be identified.

Sincerely,

John Kaltenbach
Biological Control Specialist
Leafy Spurge Program Manager





COMMISSIONERS

June 28, 2018

Yampa River Leafy Spurge Project Coordinator

c/o Friends of the Yampa

PO Box 771654

Steamboat Springs, CO 80477

Dear YRLSP,

This letter represents a pending commitment by the Moffat County Board of County Commissioners to provide \$ 7,500 in cash and \$ 750 in-kind matching support toward the Yampa River Leafy Spurge Project application for a Yampa-White-Green Basin Roundtable–Water Supply Reserve Fund (WSRF) grant in support of a project entitled “Yampa River Leafy Spurge Project—Integrated Management and Predictive Modelling—Research Component.” The support is provided between January 1, 2019 and December 31, 2019, if the YRLSP WSRF grant application is successful. We intend to support with a like amount in 2020, subject to availability of funds and personnel.


Of this support, \$ 7,500 (per year) is committed as direct cash to support graduate student tuition, health insurance, travel and per diem to carry out work on this project, subject to availability of funds.

Over the next two years, the Moffat County Board of County Commissioners will provide in-kind support valued at \$1,500, which represents staff support, materials and supplies and other services devoted to the project, subject to availability of funds and personnel.

Sincerely,


Don Cook
Commissioner


Ray Beck
Commissioner


Frank Moe
Commissioner



United States Department of the Interior

NATIONAL PARK SERVICE
Dinosaur National Monument
4545 Highway 40
Dinosaur, CO 81610



1.A.2

June 19, 2018

Yampa River Leafy Spurge Project Coordinator
c/o Friends of the Yampa
PO Box 771654
Steamboat Springs, CO 80477

Dear YRLSP,

We are pleased to offer support and cooperation toward the initiative to manage the burgeoning leafy spurge infestations in northwest Colorado. We are especially concerned about the populations adjacent to the Yampa River in eastern Moffat County and Western Routt County, as the river is proving an effective vector for spreading this invasive weed downstream along the Yampa and Green rivers in Dinosaur National Monument and beyond.

In cooperation with the Yampa River Leafy Spurge Project, the National Park Service committed substantial time and resources in 2016 and 2017 to complete leafy spurge mapping in Dinosaur National Monument. The results have magnified our concern for the present and future impacts this aggressive invader poses to invaluable riparian habitat. The number of leafy spurge patches in Dinosaur has increased since 2011 from a hand-full to over 300.

The strategy of the Yampa River Leafy Spurge Project to pursue partnerships and integrated management methods has our full support. We are aware of the difficulty of managing leafy spurge in riparian habitats along the river and are hoping that effective management tools and techniques can be identified in the coming years. Partnerships like you are effectively building will contribute to a coordinated effort that brings together the public, land management agencies, and private owners. Thank you for leading this effort.

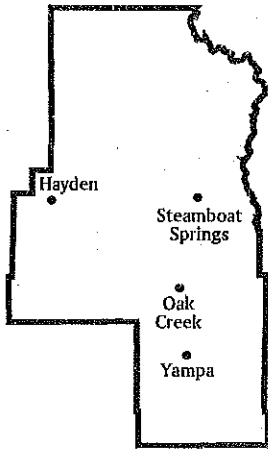
Dinosaur National Monument intends to provide in-kind matching support toward the Yampa River Leafy Spurge Project application for a Yampa-White-Green Basin Roundtable–Water Supply Reserve Fund (WSRF) grant in support of a project entitled “Yampa River Leafy Spurge Project—Integrated Management and Predictive Modelling—Research Component.” The support is to be provided between January 1, 2019 and December 31, 2020, if the YRLSP WSRF grant application is successful. Over the next two years, Dinosaur National Monument intends to provide in-kind support valued at \$2,250, which represents staff support, materials and supplies and other services devoted to the project, subject to availability of funds and staffing levels.

With this letter, please consider us a partner in the effort to manage this highly invasive threat. If you have any questions, comments, or concerns regarding this project, please contact Lisa Baldwin, Chief, Resource Stewardship and Science at 970-374-3064 or at lisa_baldwin@nps.gov.

Sincerely,

A handwritten signature in black ink, appearing to read 'Mark A. Foust', with a long horizontal flourish extending to the right.

Mark A. Foust
Superintendent



ROUTT COUNTY BOARD OF COUNTY COMMISSIONERS

Box 773598 • Steamboat Springs, Colorado 80477

Phone: 970-879-0108 • Fax: 970-879-3992

July 3, 2018

Timothy V. Corrigan
District 1

Douglas B. Monger
District 2

Carl Hermacinski
District 3

Thomas A. Sullivan
County Manager

Yampa River Leafy Spurge Project Coordinator
c/o Friends of the Yampa
PO Box 771654
Steamboat Springs, CO 80477

Dear YRLSP,

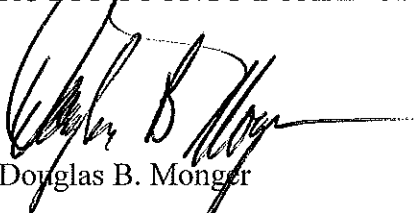
This letter represents a commitment by the Routt County Board of County Commissioners to provide \$ 7,500 in cash and \$ 750 in-kind matching support toward the Yampa River Leafy Spurge Project application for a Yampa-White-Green Basin Roundtable-Water Supply Reserve Fund (WSRF) grant in support of a project entitled "Yampa River Leafy Spurge Project—Integrated Management and Predictive Modelling—Research Component." The support is provided between January 1, 2019 and December 31, 2019, if the YRLSP WSRF grant application is successful. We intend to support with a like amount in 2020, subject to availability of funds.

Of this support, \$ 7,500 (per year) is committed as direct cash to support graduate student tuition, health insurance, travel and per diem to carry out work on this project, subject to availability of funds.

Over the next two years, the Routt County Board of County Commissioners will provide in-kind support valued at \$1,500, which represents staff support, materials and supplies and other services devoted to the project, subject to availability of funds.

Sincerely,

ROUTT COUNTY BOARD OF COUNTY COMMISSIONERS



Douglas B. Monger

June 30, 2018

Yampa River Leafy Spurge Project Coordinator
c/o Friends of the Yampa
PO Box 771654
Steamboat Springs, CO 80477

Dear YRLSP,

This letter represents a pending commitment by The Nature Conservancy to provide \$ 1,500 in-kind matching support toward the Yampa River Leafy Spurge Project application for a Yampa-White-Green Basin Roundtable–Water Supply Reserve Fund (WSRF) grant in support of a project entitled “Yampa River Leafy Spurge Project—Integrated Management and Predictive Modelling—Research Component.” The support is provided between January 1, 2019 and December 31, 2019, if the YRLSP WSRF grant application is successful. We intend to support with a like amount in 2020, subject to availability of funds.

Over the next two years, The Nature Conservancy will provide in-kind support valued at \$ 3,000, which represents lodging for visiting graduate students and faculty from the University of Wyoming at Carpenter Ranch, staff support, materials and supplies and other services devoted to the project, subject to availability of funds and personnel.

Sincerely,



Geoff Blakeslee
Yampa River Program Manager



Department of Plant Sciences
University of Wyoming
1000 E University Ave.
Laramie, WY 82071
Cell: 540-553-5471
Email: drtekiela@gmail.com

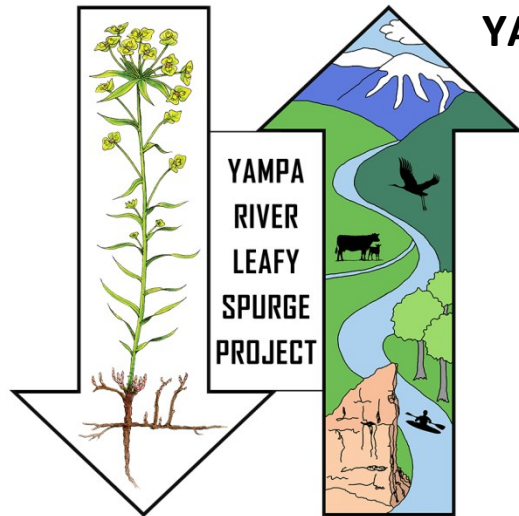
Dear YRLSP,

This letter represents a pending commitment by University of Wyoming to provide \$6286 in 2019 matching support for a Yampa-White-Green Basin–Water Supply Reserve Fund (WSRF) grant in support of a project entitled “Yampa River Leafy Spurge Project—Integrated Management and Predictive Modelling—Research Component.” The support is provided from January 1, 2019 to December 31, 2019, if the YRLSP WSRF grant application is successful. We intend to support in a like amount in 2020, subject to availability of funds.

Of this support, \$6,286 is committed as direct cash by University of Wyoming, representing 50% of the cost of tuition for two graduate students. We appreciate the commitments from Moffat and Routt counties for the remaining 50%. We look forward to assisting the YRLSP with this important work.

Sincerely,

Daniel Tekiela
University of Wyoming Assistant Professor



YAMPA RIVER LEAFY SPURGE PROJECT

The Yampa River Leafy Spurge Project (YRLSP) engages private land owners, federal, state and local government agencies, educational, environmental and recreation organizations and interested individuals, who share a concern for the economic and ecological future of the Yampa Valley. We are working together to establish an effective program of integrated management for leafy spurge—an emerging threat to our regional agricultural economy and riparian watershed health.

July 30, 2018

Craig Godbout
Colorado Water Conservation Board
1313 Sherman St., Suite 718
Denver, CO 80203

Re: Yampa River Leafy Spurge Project—Integrated Management & Predictive Modelling—Research Component

This letter represents a pending commitment by the volunteers and unaffiliated partners involved in the Yampa River Leafy Spurge Project (YRLSP) to provide \$ 20,000 in-kind matching support toward the Yampa River Leafy Spurge Project application for a Yampa-White-Green Basin Roundtable—Water Supply Reserve Fund (WSRF) grant in support of a project entitled “Yampa River Leafy Spurge Project—Integrated Management and Predictive Modelling—Research Component.” The support will be provided between October 1, 2018 and December 31, 2020.

Over the next two-and-a-half years, YRPSP volunteers and unaffiliated partners will contribute time valued at \$20 per hour toward project planning and implementation, partner coordination, administrative tasks, and public outreach, etc. (300 hours = \$6,000), leafy spurge mapping (500 hours = \$10,000), and youth engagement in biological control implementation and monitoring (200 hours = \$4,000). This commitment represents a total in-kind value of at least \$20,000.

Sincerely,

Tamara Naumann
Grant Management Contact
970-620-0182



United States Department of the Interior

BUREAU OF LAND MANAGEMENT
Little Snake Field Office
455 Emerson Street
Craig, Colorado 81625-1129



June 12, 2018

Yampa River Leafy Spurge Project Coordinator
c/o Friends of the Yampa
PO Box 771654
Steamboat Springs, CO 80477

Dear YRLSP,

This letter represents a pending commitment by the BLM-Little Snake Field Office to provide \$1,125 in-kind matching support toward the Yampa River Leafy Spurge Project application for a Yampa-White-Green Basin Roundtable-Water Supply Reserve Fund (WSRF) grant in support of a project entitled "Yampa River Leafy Spurge Project—Integrated Management and Predictive Modelling—Research Component." The support is to be provided between October 1, 2018 and September 30, 2019, if the YRLSP WSRF grant application is successful. We intend to support with a like amount of in-kind in 2020, subject to availability of funds and personnel.

Over the next two years, the BLM-Little Snake Field Office will provide in-kind support valued at \$2,250, which represents staff support, materials and supplies and other services devoted to the project, subject to availability of funds and personnel.

Sincerely,

Bruce Sillitoe
Field Office Manager



COLORADO
Department of Agriculture
Conservation Services Division

June 29, 2018

Yampa River Leafy Spurge Project Coordinator
c/o Friends of the Yampa
PO Box 771654
Steamboat Springs, CO 80477

Dear YRLSP,

This letter represents a pending commitment by the Colorado Department of Agriculture—Biological Control Program to provide \$ 1,000 in-kind matching support toward the Yampa River Leafy Spurge Project application for a Yampa-White-Green Basin Roundtable-Water Supply Reserve Fund (WSRF) grant in support of a project entitled “Yampa River Leafy Spurge Project—Integrated Management and Predictive Modelling—Research Component.” The support is provided between July 1, 2018 and June 30, 2019, if the YRLSP WSRF grant application is successful. We intend to support with a like amount of in-kind in 2020, subject to availability of funds.

Over the next two years, the Colorado Department of Agriculture would like to provide in-kind support valued at \$2,000, which represents staff support for YRLSP efforts to develop a leafy spurge biocontrol release site map for Moffat and Routt Counties and for developing a kid-friendly monitoring protocol suitable for use in a youth engagement project to “adopt-a-bug-patch” with 4-H clubs and other local youth organizations. Biological control insects will also be made available for release, if suitable sites can be identified.

Sincerely,

John Kaltenbach
Biological Control Specialist
Leafy Spurge Program Manager





COLORADO

Parks and Wildlife

Department of Natural Resources

Steamboat Springs Service Center
925 Weiss Dr.
Steamboat Springs, CO 80487
P 970-870-2197 | F 970-871-2853

July 30, 2018

Yampa River Leafy Spurge Project Coordinator
c/o Friends of the Yampa
PO Box 771654
Steamboat Springs, CO 80477

Dear YRLSP,

This letter represents a pending commitment by Colorado Parks and Wildlife to provide \$ 750 in-kind matching support toward the Yampa River Leafy Spurge Project application for a Yampa-White-Green Basin Roundtable-Water Supply Reserve Fund (WSRF) grant in support of a project entitled “Yampa River Leafy Spurge Project—Integrated Management and Predictive Modelling—Research Component.” The support is provided between July 1, 2018 and June 30, 2019, if the YRLSP WSRF grant application is successful. We intend to support with a like amount of in-kind in 2020, subject to availability of funds and personnel.

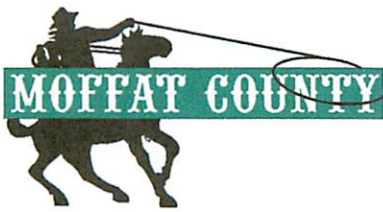
Over the next two years, Colorado Parks and Wildlife will provide in-kind support valued at \$1,500, which represents staff support, materials and supplies and other services devoted to the project, subject to availability of funds and personnel.

Sincerely,

Kris Middledorf
Area Wildlife Manager
Colorado Parks and Wildlife

Cc: Tyler Jacox, Wildlife Property Technician





COMMISSIONERS

June 28, 2018

Yampa River Leafy Spurge Project Coordinator

c/o Friends of the Yampa

PO Box 771654

Steamboat Springs, CO 80477

Dear YRLSP,

This letter represents a pending commitment by the Moffat County Board of County Commissioners to provide \$ 7,500 in cash and \$ 750 in-kind matching support toward the Yampa River Leafy Spurge Project application for a Yampa-White-Green Basin Roundtable–Water Supply Reserve Fund (WSRF) grant in support of a project entitled “Yampa River Leafy Spurge Project—Integrated Management and Predictive Modelling—Research Component.” The support is provided between January 1, 2019 and December 31, 2019, if the YRLSP WSRF grant application is successful. We intend to support with a like amount in 2020, subject to availability of funds and personnel.


Of this support, \$ 7,500 (per year) is committed as direct cash to support graduate student tuition, health insurance, travel and per diem to carry out work on this project, subject to availability of funds.

Over the next two years, the Moffat County Board of County Commissioners will provide in-kind support valued at \$1,500, which represents staff support, materials and supplies and other services devoted to the project, subject to availability of funds and personnel.

Sincerely,


Don Cook
Commissioner


Ray Beck
Commissioner


Frank Moe
Commissioner



United States Department of the Interior

NATIONAL PARK SERVICE
Dinosaur National Monument
4545 Highway 40
Dinosaur, CO 81610



1.A.2

June 19, 2018

Yampa River Leafy Spurge Project Coordinator
c/o Friends of the Yampa
PO Box 771654
Steamboat Springs, CO 80477

Dear YRLSP,

We are pleased to offer support and cooperation toward the initiative to manage the burgeoning leafy spurge infestations in northwest Colorado. We are especially concerned about the populations adjacent to the Yampa River in eastern Moffat County and Western Routt County, as the river is proving an effective vector for spreading this invasive weed downstream along the Yampa and Green rivers in Dinosaur National Monument and beyond.

In cooperation with the Yampa River Leafy Spurge Project, the National Park Service committed substantial time and resources in 2016 and 2017 to complete leafy spurge mapping in Dinosaur National Monument. The results have magnified our concern for the present and future impacts this aggressive invader poses to invaluable riparian habitat. The number of leafy spurge patches in Dinosaur has increased since 2011 from a hand-full to over 300.

The strategy of the Yampa River Leafy Spurge Project to pursue partnerships and integrated management methods has our full support. We are aware of the difficulty of managing leafy spurge in riparian habitats along the river and are hoping that effective management tools and techniques can be identified in the coming years. Partnerships like you are effectively building will contribute to a coordinated effort that brings together the public, land management agencies, and private owners. Thank you for leading this effort.

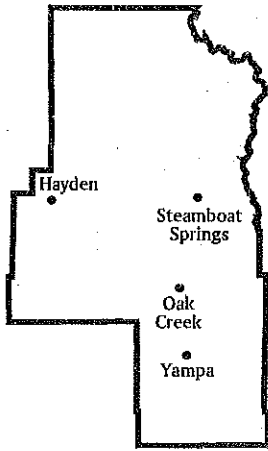
Dinosaur National Monument intends to provide in-kind matching support toward the Yampa River Leafy Spurge Project application for a Yampa-White-Green Basin Roundtable–Water Supply Reserve Fund (WSRF) grant in support of a project entitled “Yampa River Leafy Spurge Project—Integrated Management and Predictive Modelling—Research Component.” The support is to be provided between January 1, 2019 and December 31, 2020, if the YRLSP WSRF grant application is successful. Over the next two years, Dinosaur National Monument intends to provide in-kind support valued at \$2,250, which represents staff support, materials and supplies and other services devoted to the project, subject to availability of funds and staffing levels.

With this letter, please consider us a partner in the effort to manage this highly invasive threat. If you have any questions, comments, or concerns regarding this project, please contact Lisa Baldwin, Chief, Resource Stewardship and Science at 970-374-3064 or at lisa_baldwin@nps.gov.

Sincerely,

A handwritten signature in black ink, appearing to read 'Mark A. Foust', with a long horizontal flourish extending to the right.

Mark A. Foust
Superintendent



ROUTT COUNTY BOARD OF COUNTY COMMISSIONERS

Box 773598 • Steamboat Springs, Colorado 80477

Phone: 970-879-0108 • Fax: 970-879-3992

July 3, 2018

Timothy V. Corrigan
District 1

Douglas B. Monger
District 2

Carl Hermacinski
District 3

Thomas A. Sullivan
County Manager

Yampa River Leafy Spurge Project Coordinator
c/o Friends of the Yampa
PO Box 771654
Steamboat Springs, CO 80477

Dear YRLSP,

This letter represents a commitment by the Routt County Board of County Commissioners to provide \$ 7,500 in cash and \$ 750 in-kind matching support toward the Yampa River Leafy Spurge Project application for a Yampa-White-Green Basin Roundtable-Water Supply Reserve Fund (WSRF) grant in support of a project entitled "Yampa River Leafy Spurge Project—Integrated Management and Predictive Modelling—Research Component." The support is provided between January 1, 2019 and December 31, 2019, if the YRLSP WSRF grant application is successful. We intend to support with a like amount in 2020, subject to availability of funds.

Of this support, \$ 7,500 (per year) is committed as direct cash to support graduate student tuition, health insurance, travel and per diem to carry out work on this project, subject to availability of funds.

Over the next two years, the Routt County Board of County Commissioners will provide in-kind support valued at \$1,500, which represents staff support, materials and supplies and other services devoted to the project, subject to availability of funds.

Sincerely,

ROUTT COUNTY BOARD OF COUNTY COMMISSIONERS

A handwritten signature in black ink, appearing to read "Douglas B. Monger", written over a horizontal line.

Douglas B. Monger

June 30, 2018

Yampa River Leafy Spurge Project Coordinator
c/o Friends of the Yampa
PO Box 771654
Steamboat Springs, CO 80477

Dear YRLSP,

This letter represents a pending commitment by The Nature Conservancy to provide \$ 1,500 in-kind matching support toward the Yampa River Leafy Spurge Project application for a Yampa-White-Green Basin Roundtable–Water Supply Reserve Fund (WSRF) grant in support of a project entitled “Yampa River Leafy Spurge Project—Integrated Management and Predictive Modelling—Research Component.” The support is provided between January 1, 2019 and December 31, 2019, if the YRLSP WSRF grant application is successful. We intend to support with a like amount in 2020, subject to availability of funds.

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Sincerely,



Geoff Blakeslee
Yampa River Program Manager



Department of Plant Sciences
University of Wyoming
1000 E University Ave.
Laramie, WY 82071
Cell: 540-553-5471
Email: drtekiela@gmail.com

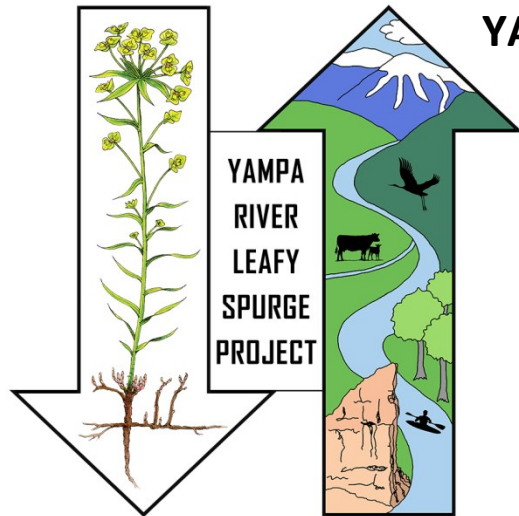
Dear YRLSP,

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Sincerely,

Daniel Tekiela
University of Wyoming Assistant Professor



YAMPA RIVER LEAFY SPURGE PROJECT

The Yampa River Leafy Spurge Project (YRLSP) engages private land owners, federal, state and local government agencies, educational, environmental and recreation organizations and interested individuals, who share a concern for the economic and ecological future of the Yampa Valley. We are working together to establish an effective program of integrated management for leafy spurge—an emerging threat to our regional agricultural economy and riparian watershed health.

July 30, 2018

Craig Godbout
Colorado Water Conservation Board
1313 Sherman St., Suite 718
Denver, CO 80203

Re: Yampa River Leafy Spurge Project—Integrated Management & Predictive Modelling—Research Component

This letter represents a pending commitment by the volunteers and unaffiliated partners involved in the Yampa River Leafy Spurge Project (YRLSP) to provide \$ 20,000 in-kind matching support toward the Yampa River Leafy Spurge Project application for a Yampa-White-Green Basin Roundtable–Water Supply Reserve Fund (WSRF) grant in support of a project entitled “Yampa River Leafy Spurge Project—Integrated Management and Predictive Modelling—Research Component.” The support will be provided between October 1, 2018 and December 31, 2020.

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Sincerely,

Tamara Naumann
Grant Management Contact
970-620-0182



June 26, 2018

Mr. Craig Godbout
Colorado Water Conservation Board and Roundtable
Department of Natural Resources
1313 Sherman St. room 718
Denver, CO 80203
craig.godbout@state.co.us

RE: Yampa River Leafy Spurge Project—Integrated Management and Predictive Modelling—Research Component

Dear Mr. Godbout,

The Colorado Department of Agriculture (CDA) is pleased to provide this letter of support for the YRLSP application for a Yampa-White-Green Basin Roundtable-Water Supply Reserve Fund (WSRF) grant in support of a project entitled “Yampa River Leafy Spurge Project—Integrated Management and Predictive Modelling—Research Component.”

We agree with the assessment that water is the primary vector causing the spread of leafy spurge in the Upper and Lower Yampa River subbasins. Obtaining high water quality for agricultural irrigation and intact functioning riparian ecosystems are central goals of CDA and the Yampa Leafy Spurge Project. Thus, long-term elimination of leafy spurge along the Yampa River, its tributaries, adjoining irrigation ditches and adjacent agricultural fields upon which our natural resources, food supply and agricultural production depends upon is a high priority for CDA. Efforts to reduce seed production in riparian areas is a necessary action at this stage in the leafy spurge invasion to prevent further contamination of the area’s agricultural irrigation supply, improve water quality and to reduce riparian ecosystem impacts. The WSRF grant proposal would leverage work that CDA is already supporting with three consecutive years of funding totaling \$56,000 toward the stated goals in the YRLSP 10-year strategic management plan.

CDA recognizes that a long-term and sustainable solution to the leafy spurge problem in the Yampa Valley will require a sustained and coordinated community-based grassroots effort. We are prepared to support additional efforts to establish effective biological control insect populations and to assist the YRLSP in developing a monitoring program that will engage local youth organizations. We also applaud continued efforts to add more field surveys and remote sensing to obtain more accurate landscape level assessment of the overall infestation along the Yampa River. CDA remains interested and available to the YRLSP for technical support for continued GIS, field surveys, strategic planning, treatment, monitoring and related consultation.

As we continue to work collaboratively with the Yampa River Leafy Spurge Project and its 18 other partnering agencies and organizations, we hope you will consider this work a high priority for the Yampa-White-Green Basin Roundtable-Water Supply Reserve Fund.

Sincerely,

Lara Durán
List B Noxious Weed Specialist
Conservation Service Division
303-869-9036
lara.duran@state.co.us



June 22, 2018

Yampa River Leafy Spurge Project Coordinator
c/o Friends of the Yampa
PO Box 771654
Steamboat Springs, CO 80477

To: YWGR Roundtable

From: Community Agriculture Alliance

Re: Letter of Support for Yampa River Leafy Spurge Project

Community Agriculture Alliance (CAA) supports the grant application submitted by Yampa River Leafy Spurge project.

CAA recognizes the critical importance of this project for not only agriculture in the Yampa Valley, but the entire watershed.

- The Yampa River is a unique system providing riparian resources for agriculture, municipalities, recreation, wildlife and fish, native plant communities and environmental protection
- Unchecked Leafy Spurge infestations are crippling to agricultural and recreational economies – both are extremely important to this region
- Infestations have been found along 150+ miles of the Yampa River. Current control methods have been limited by finances, man-power and lack of coordinated efforts
- Local residents and agencies in Routt and Moffat Counties are taking a pro-active collaborative approach to combat this invasive noxious weed

We appreciate your consideration of this grant request and encourage your approval.

Thank you for your consideration.



Michele Meyer
Executive Director, Community Ag Alliance



community
agriculture
alliance

BOARD OF DIRECTORS

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Lore Marvin, Co-chair
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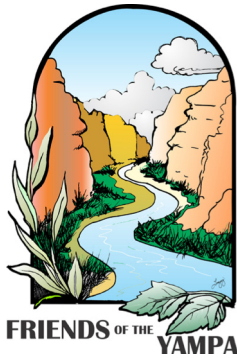
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Raylene Olinger
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Erik Taylor
Rich Tremaine

STAFF

Michele Meyer
Patrick Stanko
Heather Mantzke

Community Agriculture Alliance
141 Ninth Street
PO Box 774134
Steamboat Springs, CO 80477
970.879.4370

www.communityagalliance.org



Friends of the Yampa

www.friendsoftheyampa.com

PO Box 771654, Steamboat Springs, CO 80477

Mission: To protect and enhance the environmental and recreational integrity of the Yampa River and its tributaries thru stewardship, advocacy, education and partnerships.

June 12, 2018

Jacquie Brown

Chair – Yampa/White/Green Basin Roundtable (YWG BR)

RE: Letter of Support for Yampa River Leafy Spurge Project

Dear Jacquie and YWG Basin Roundtable members

Friends of the Yampa (FOTY) is pleased to submit this application in support of the Yampa River Leafy Spurge Project, requesting \$89,000 from the YWG BRT Water Supply Reserve Fund Basin Account.

The Yampa River Leafy Spurge Project (YRLSP) partners appreciated the feedback received on first reading before the Basin Roundtable on September 13, 2017 and have substantially revised the proposal based on that feedback. We are confident the revised approach aligns much more closely with YWG Basin Implementation Plan objectives.

A clear nexus exists between leafy spurge distribution and water as vector in Moffat and Routt counties. Because both environmental and agricultural uses of water are involved, the Board of Directors of FOTY is enthusiastic about this opportunity to serve as the fiscal agent (official 501(c)(3) applicant) for this application. We believe the YRLSP represents an opportunity for grassroots work with diverse partners toward a meaningful long-term solution to the threat leafy spurge poses to local agricultural systems and riparian habitats YWG WSRF-supported progress will be used to leverage additional fund sources to meet long-term objectives and support the sustained effort that will be necessary for successful outcomes.

Thank you for your consideration of this revised application. The FOTY Board of Directors has designated Tamara Naumann as its point of contact for the YRLSP). She is available at 970-620-0182 or williapa@toast.net for any questions or information needs related to this application.

Sincerely yours,

Kent Vertrees

Board President, Friends of the Yampa

970-846-7933

From: **Nick Charchalis** <charchalisfarms@gmail.com>
Date: Mon, Jul 9, 2018 at 8:47 AM
Subject: Leafy Spurge
To: Ben Beall <benandmillie@gmail.com>

To: The Yampa White Green Basin Roundtable
Re: Yampa River Leafy Spurge Project Grant Application

Dear YWG Basin Roundtable Members:

The Moffat County Weed Board supports the Yampa River Leafy Spurge Project (YRLSP) grant application which will be considered at the July 11, 2018 YWG RT meeting. The grant will help fund targeted research into effective strategies for management of the growing leafy spurge infestation in the Yampa River corridor. Such research is needed to ensure we use our resources wisely into the future. The research would map the extent and distribution of the weed, identify areas susceptible to future infestation, quantify the seed production in various riparian settings along the river, evaluate best integrated management practices to reduce cover and seed production in riparian areas, and develop a protocol for monitoring biological control that will engage youth organizations.

Leafy spurge is a well-known significant threat to agricultural operations and biodiversity in numerous states across the country. Just to the north of us in Wyoming there are counties that have or are considering ceasing control efforts because the problem has grown so large that management would be cost prohibitive. We need to take steps now to prevent the same thing from happening here in the Yampa Valley.

The Yampa River is the major spread vector for leafy spurge here. The river has spread seed downstream and increasing infestations are now present all the way through Dinosaur National Monument. Water that is being delivered to agricultural operations through irrigation ditches is spreading the problem. Ranchers in the Maybell area are reporting new and increasing populations of leafy spurge in their fields and pastures.

The YWG RT grant will help clarify the best approaches to managing this problem, and it is hoped that it will also help leverage funding from other agencies to implement those practices.

Thank you for your consideration of the YRLSP grant application.

Nick Charchalis, Moffat County Weed Board Member.
6795 Highway 394
Craig, CO 81625
970-629-1745



COLORADO

State Land Board

Department of Natural Resources

Northwest District
2667 Copper Ridge Circle, Unit 1
Steamboat Springs, CO 80487
P 970.879.9992 | F 970.879.9498

Yampa River Leafy Spurge Project Coordinator
c/o Friends of the Yampa
PO Box 771654
Steamboat Springs, CO 80477

June 25, 2018

To whom it may concern,

The Colorado State Land Board supports the Yampa River Leafy Spurge Project in applying for CWCB Water Supply Reserve Funds through the YWGRT.

The Yampa River Leafy Spurge Project ('YRLSP') involves numerous local, state and federal government agencies, as well as private land owners and non-governmental organizations, across Routt and Moffat counties in northwest Colorado. Support from the CWCB Water Supply Reserve Funds will ensure that the YRLSP continues with its goal of controlling the leafy spurge infestations found throughout the Yampa River basin.

Please contact me at (979)879-9992 with any questions regarding this correspondence.

Best Regards,

Jerod Smith
NW District Manager





United States Department of the Interior

BUREAU OF LAND MANAGEMENT
Little Snake Field Office
455 Emerson Street
Craig, Colorado 81625-1129



June 12, 2018

Yampa River Leafy Spurge Project Coordinator
c/o Friends of the Yampa
PO Box 771654
Steamboat Springs, CO 80477

Dear YRLSP,

This letter represents a pending commitment by the BLM-Little Snake Field Office to provide \$1,125 in-kind matching support toward the Yampa River Leafy Spurge Project application for a Yampa-White-Green Basin Roundtable-Water Supply Reserve Fund (WSRF) grant in support of a project entitled "Yampa River Leafy Spurge Project—Integrated Management and Predictive Modelling—Research Component." The support is to be provided between October 1, 2018 and September 30, 2019, if the YRLSP WSRF grant application is successful. We intend to support with a like amount of in-kind in 2020, subject to availability of funds and personnel.

Over the next two years, the BLM-Little Snake Field Office will provide in-kind support valued at \$2,250, which represents staff support, materials and supplies and other services devoted to the project, subject to availability of funds and personnel.

Sincerely,

Bruce Sillitoe
Field Office Manager



COLORADO
Department of Agriculture
Conservation Services Division

June 29, 2018

Yampa River Leafy Spurge Project Coordinator
c/o Friends of the Yampa
PO Box 771654
Steamboat Springs, CO 80477

Dear YRLSP,

This letter represents a pending commitment by the Colorado Department of Agriculture—Biological Control Program to provide \$ 1,000 in-kind matching support toward the Yampa River Leafy Spurge Project application for a Yampa-White-Green Basin Roundtable-Water Supply Reserve Fund (WSRF) grant in support of a project entitled “Yampa River Leafy Spurge Project—Integrated Management and Predictive Modelling—Research Component.” The support is provided between July 1, 2018 and June 30, 2019, if the YRLSP WSRF grant application is successful. We intend to support with a like amount of in-kind in 2020, subject to availability of funds.

Over the next two years, the Colorado Department of Agriculture would like to provide in-kind support valued at \$2,000, which represents staff support for YRLSP efforts to develop a leafy spurge biocontrol release site map for Moffat and Routt Counties and for developing a kid-friendly monitoring protocol suitable for use in a youth engagement project to “adopt-a-bug-patch” with 4-H clubs and other local youth organizations. Biological control insects will also be made available for release, if suitable sites can be identified.

Sincerely,

John Kaltenbach
Biological Control Specialist
Leafy Spurge Program Manager





COLORADO

Parks and Wildlife

Department of Natural Resources

Steamboat Springs Service Center
925 Weiss Dr.
Steamboat Springs, CO 80487
P 970-870-2197 | F 970-871-2853

July 30, 2018

Yampa River Leafy Spurge Project Coordinator
c/o Friends of the Yampa
PO Box 771654
Steamboat Springs, CO 80477

Dear YRLSP,

This letter represents a pending commitment by Colorado Parks and Wildlife to provide \$ 750 in-kind matching support toward the Yampa River Leafy Spurge Project application for a Yampa-White-Green Basin Roundtable-Water Supply Reserve Fund (WSRF) grant in support of a project entitled “Yampa River Leafy Spurge Project—Integrated Management and Predictive Modelling—Research Component.” The support is provided between July 1, 2018 and June 30, 2019, if the YRLSP WSRF grant application is successful. We intend to support with a like amount of in-kind in 2020, subject to availability of funds and personnel.

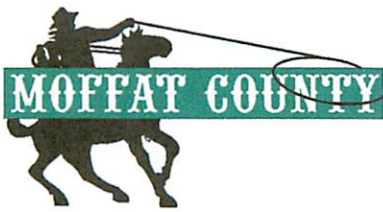
Over the next two years, Colorado Parks and Wildlife will provide in-kind support valued at \$1,500, which represents staff support, materials and supplies and other services devoted to the project, subject to availability of funds and personnel.

Sincerely,

Kris Middledorf
Area Wildlife Manager
Colorado Parks and Wildlife

Cc: Tyler Jacox, Wildlife Property Technician





COMMISSIONERS

June 28, 2018

Yampa River Leafy Spurge Project Coordinator

c/o Friends of the Yampa

PO Box 771654

Steamboat Springs, CO 80477

Dear YRLSP,

This letter represents a pending commitment by the Moffat County Board of County Commissioners to provide \$ 7,500 in cash and \$ 750 in-kind matching support toward the Yampa River Leafy Spurge Project application for a Yampa-White-Green Basin Roundtable–Water Supply Reserve Fund (WSRF) grant in support of a project entitled “Yampa River Leafy Spurge Project—Integrated Management and Predictive Modelling—Research Component.” The support is provided between January 1, 2019 and December 31, 2019, if the YRLSP WSRF grant application is successful. We intend to support with a like amount in 2020, subject to availability of funds and personnel.


Of this support, \$ 7,500 (per year) is committed as direct cash to support graduate student tuition, health insurance, travel and per diem to carry out work on this project, subject to availability of funds.

Over the next two years, the Moffat County Board of County Commissioners will provide in-kind support valued at \$1,500, which represents staff support, materials and supplies and other services devoted to the project, subject to availability of funds and personnel.

Sincerely,


Don Cook
Commissioner


Ray Beck
Commissioner


Frank Moe
Commissioner



United States Department of the Interior

NATIONAL PARK SERVICE
Dinosaur National Monument
4545 Highway 40
Dinosaur, CO 81610



1.A.2

June 19, 2018

Yampa River Leafy Spurge Project Coordinator
c/o Friends of the Yampa
PO Box 771654
Steamboat Springs, CO 80477

Dear YRLSP,

We are pleased to offer support and cooperation toward the initiative to manage the burgeoning leafy spurge infestations in northwest Colorado. We are especially concerned about the populations adjacent to the Yampa River in eastern Moffat County and Western Routt County, as the river is proving an effective vector for spreading this invasive weed downstream along the Yampa and Green rivers in Dinosaur National Monument and beyond.

In cooperation with the Yampa River Leafy Spurge Project, the National Park Service committed substantial time and resources in 2016 and 2017 to complete leafy spurge mapping in Dinosaur National Monument. The results have magnified our concern for the present and future impacts this aggressive invader poses to invaluable riparian habitat. The number of leafy spurge patches in Dinosaur has increased since 2011 from a hand-full to over 300.

The strategy of the Yampa River Leafy Spurge Project to pursue partnerships and integrated management methods has our full support. We are aware of the difficulty of managing leafy spurge in riparian habitats along the river and are hoping that effective management tools and techniques can be identified in the coming years. Partnerships like you are effectively building will contribute to a coordinated effort that brings together the public, land management agencies, and private owners. Thank you for leading this effort.

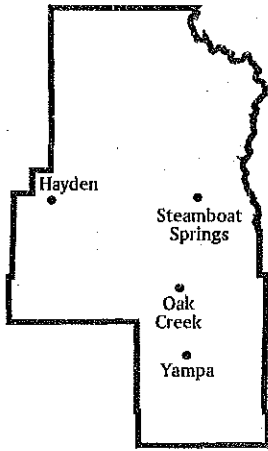
Dinosaur National Monument intends to provide in-kind matching support toward the Yampa River Leafy Spurge Project application for a Yampa-White-Green Basin Roundtable–Water Supply Reserve Fund (WSRF) grant in support of a project entitled “Yampa River Leafy Spurge Project—Integrated Management and Predictive Modelling—Research Component.” The support is to be provided between January 1, 2019 and December 31, 2020, if the YRLSP WSRF grant application is successful. Over the next two years, Dinosaur National Monument intends to provide in-kind support valued at \$2,250, which represents staff support, materials and supplies and other services devoted to the project, subject to availability of funds and staffing levels.

With this letter, please consider us a partner in the effort to manage this highly invasive threat. If you have any questions, comments, or concerns regarding this project, please contact Lisa Baldwin, Chief, Resource Stewardship and Science at 970-374-3064 or at lisa_baldwin@nps.gov.

Sincerely,

A handwritten signature in black ink, appearing to read 'Mark A. Foust', with a long horizontal flourish extending to the right.

Mark A. Foust
Superintendent



ROUTT COUNTY BOARD OF COUNTY COMMISSIONERS

Box 773598 • Steamboat Springs, Colorado 80477

Phone: 970-879-0108 • Fax: 970-879-3992

July 3, 2018

Timothy V. Corrigan
District 1

Douglas B. Monger
District 2

Carl Hermacinski
District 3

Thomas A. Sullivan
County Manager

Yampa River Leafy Spurge Project Coordinator
c/o Friends of the Yampa
PO Box 771654
Steamboat Springs, CO 80477

Dear YRLSP,

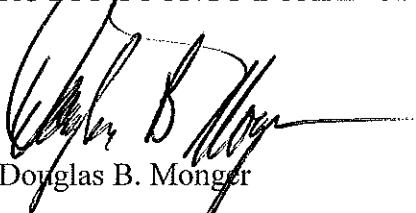
This letter represents a commitment by the Routt County Board of County Commissioners to provide \$ 7,500 in cash and \$ 750 in-kind matching support toward the Yampa River Leafy Spurge Project application for a Yampa-White-Green Basin Roundtable-Water Supply Reserve Fund (WSRF) grant in support of a project entitled "Yampa River Leafy Spurge Project—Integrated Management and Predictive Modelling—Research Component." The support is provided between January 1, 2019 and December 31, 2019, if the YRLSP WSRF grant application is successful. We intend to support with a like amount in 2020, subject to availability of funds.

Of this support, \$ 7,500 (per year) is committed as direct cash to support graduate student tuition, health insurance, travel and per diem to carry out work on this project, subject to availability of funds.

Over the next two years, the Routt County Board of County Commissioners will provide in-kind support valued at \$1,500, which represents staff support, materials and supplies and other services devoted to the project, subject to availability of funds.

Sincerely,

ROUTT COUNTY BOARD OF COUNTY COMMISSIONERS



Douglas B. Monger

June 30, 2018

Yampa River Leafy Spurge Project Coordinator
c/o Friends of the Yampa
PO Box 771654
Steamboat Springs, CO 80477

Dear YRLSP,

This letter represents a pending commitment by The Nature Conservancy to provide \$ 1,500 in-kind matching support toward the Yampa River Leafy Spurge Project application for a Yampa-White-Green Basin Roundtable–Water Supply Reserve Fund (WSRF) grant in support of a project entitled “Yampa River Leafy Spurge Project—Integrated Management and Predictive Modelling—Research Component.” The support is provided between January 1, 2019 and December 31, 2019, if the YRLSP WSRF grant application is successful. We intend to support with a like amount in 2020, subject to availability of funds.

Over the next two years, The Nature Conservancy will provide in-kind support valued at \$ 3,000, which represents lodging for visiting graduate students and faculty from the University of Wyoming at Carpenter Ranch, staff support, materials and supplies and other services devoted to the project, subject to availability of funds and personnel.

Sincerely,



Geoff Blakeslee
Yampa River Program Manager



Department of Plant Sciences
University of Wyoming
1000 E University Ave.
Laramie, WY 82071
Cell: 540-553-5471
Email: drtekiela@gmail.com

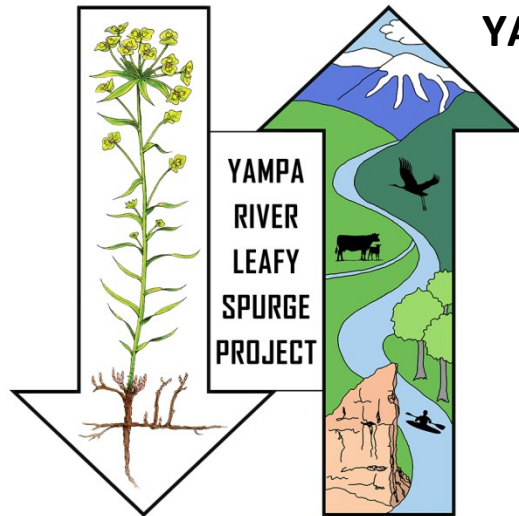
Dear YRLSP,

This letter represents a pending commitment by University of Wyoming to provide \$6286 in 2019 matching support for a Yampa-White-Green Basin–Water Supply Reserve Fund (WSRF) grant in support of a project entitled “Yampa River Leafy Spurge Project—Integrated Management and Predictive Modelling—Research Component.” The support is provided from January 1, 2019 to December 31, 2019, if the YRLSP WSRF grant application is successful. We intend to support in a like amount in 2020, subject to availability of funds.

Of this support, \$6,286 is committed as direct cash by University of Wyoming, representing 50% of the cost of tuition for two graduate students. We appreciate the commitments from Moffat and Routt counties for the remaining 50%. We look forward to assisting the YRLSP with this important work.

Sincerely,

Daniel Tekiela
University of Wyoming Assistant Professor



YAMPA RIVER LEAFY SPURGE PROJECT

The Yampa River Leafy Spurge Project (YRLSP) engages private land owners, federal, state and local government agencies, educational, environmental and recreation organizations and interested individuals, who share a concern for the economic and ecological future of the Yampa Valley. We are working together to establish an effective program of integrated management for leafy spurge—an emerging threat to our regional agricultural economy and riparian watershed health.

July 30, 2018

Craig Godbout
Colorado Water Conservation Board
1313 Sherman St., Suite 718
Denver, CO 80203

Re: Yampa River Leafy Spurge Project—Integrated Management & Predictive Modelling—Research Component

This letter represents a pending commitment by the volunteers and unaffiliated partners involved in the Yampa River Leafy Spurge Project (YRLSP) to provide \$ 20,000 in-kind matching support toward the Yampa River Leafy Spurge Project application for a Yampa-White-Green Basin Roundtable—Water Supply Reserve Fund (WSRF) grant in support of a project entitled “Yampa River Leafy Spurge Project—Integrated Management and Predictive Modelling—Research Component.” The support will be provided between October 1, 2018 and December 31, 2020.

Over the next two-and-a-half years, YRPSP volunteers and unaffiliated partners will contribute time valued at \$20 per hour toward project planning and implementation, partner coordination, administrative tasks, and public outreach, etc. (300 hours = \$6,000), leafy spurge mapping (500 hours = \$10,000), and youth engagement in biological control implementation and monitoring (200 hours = \$4,000). This commitment represents a total in-kind value of at least \$20,000.

Sincerely,

Tamara Naumann
Grant Management Contact
970-620-0182