Application Name: UGR PLANTSKYDD

By: Grande Ronde Model WS Foundation

Offering Type: Upper Grande Ronde Initiative

Application Type: Restoration

OWEB Region: Eastern Oregon
County: Union
Coordinates: 45.057602,-118.457459

Applicant:
Jeff Oveson
1114 J Avenue
La Grande OR 97850-2073
(541) 663-0570
jeff@grmw.org

Payee:
Mary Estes
1114 J Avenue
La Grande OR 97850
(541) 663-0570
mary@grmw.org

Project Manager:
Joe Platz
3502 HWY 30
LaGrande OR 97850
(541) 962-8571
jplatz@fs.fed.us

Budget Summary:
OWEB Amount Requested: $0
Total Project Amount: $0

Administrative Information

Abstract

Provide an abstract statement for the project in 250 words or less. Include the following information: 1) Identify the project location; 2) Briefly state the project need; 3) Describe the proposed work; 4) Identify project partners.

The project would involve spraying Plantskydd three times a year (April, July and October) on 24 miles of streams within the Upper Grande Ronde River, Meadow Creek and Grande Ronde River - Five Points Creek Watersheds. Plantskydd is an organic spray developed in Sweden to prevent wild ungulate browse. All deciduous seedlings/plants 5' tall or less will be sprayed within the riparian areas of the above streams, three times a year for 2 years.

Location Information

What is the ownership of the project site(s)?

✓ *Public land (any lands owned by the Federal government, the State of Oregon, a city, county, district or municipal or public corporation in Oregon)*

What agency(ies) are involved?

US Forest Service, Grande Ronde Model Watershed, and Bonneville Power Administration

❑ *Private (land owned by non-governmental entities)*

❑ *This grant will take place in more than one county.*

Permits

Other than the land-use form, do you need a permit, license or other regulatory approval of any of the proposed project activities?

❍ Yes
● No

Racial and Ethnic Impact Statement

Racial and Ethnic Impact Statement

❍ The proposed grant project policies or programs could have a disproportionate or unique POSITIVE impact on the following minority persons. (indicate all that apply)

❍ The proposed grant project policies or programs could have a disproportionate or unique NEGATIVE impact on the following minority persons. (indicate all that apply)

● The proposed grant project policies or programs WILL HAVE NO disproportionate or unique impact on minority persons.

Insurance Information

❑*Working with hazardous materials (not including materials used in the normal operation of equipment such as hydraulic fluid)*

❑*Earth moving work around the footprint of a well*

❑*Aerial application of chemicals*

❑*Transporting individuals on the water*

❑*Removal or alteration of structures that hold back water on land or instream including dams, levees, dikes, tidegates and other water control devices (this does not include temporary diversion dams used solely to divert water for irrigation)*

❑*Applicant's staff or volunteers are working with kids related to this project (DAS Risk assessment tool not required, additional insurance is required)*

❑*Applicant's staff are applying herbicides or pesticides (DAS Risk assessment tool not required, additional insurance is required)*

Additional Information

❑*This project affects Sage Grouse.*

Problem Statement

Describe the watershed problem(s) that this restoration project seeks to address.

The streams identified in this proposal have a lack of riparian deciduous shrub vegetation. All of the streams have been planted with native riparian shrubs. Wild ungulate browse is affecting the survival, growth and vigor of these shrubs. The project would spray all of the shrubs within 50'-100' of the streams that are 5' or less in height. Positive results have been shown through first year monitoring efforts on 7.5 of the 24 miles of stream identified for treatment.

The 24 miles of streams within this project were selected for treatment, based on the following.

(1) All of the streams have had restoration completed in the past. Past restoration efforts included planting of deciduous shrubs/trees.
(2) The streams were originally planted, due to a lack of riparian deciduous vegetation.
(3) All of the streams have exhibited significant browse, primarily from wild ungulates.
(4) These streams have habitat that is crucial to chinook salmon, steelhead and bull trout.
(5) Deciduous shrubs/trees are important for floodplain health, beavers, stream shade, stream temperatures and the food web for threatened fish.

How have past or current land management practices contributed to the problem?

Beaver trapping and historic livestock grazing, riparian logging, and roading have contributed to the current condition. Presently, there are 11 miles of streams grazed by livestock and 13 miles with no livestock grazing. Riparian timber harvest and roading no longer occurs. Wild ungulate browse is one of the leading causes of riparian shrub mortality with the above stream systems.

Does this project address one or both of the following:

✓ *Habitat needs for one or more Endangered Species Act-listed species and/or species of concern*
❑ *Concerns identified on 303(d) listed streams*
❑ *No*

Proposed Solution

Goals and Objectives

Provide a goal statement for this restoration application.

The goal is to improve spring/summer chinook, summer steelhead, and bull trout habitats, specifically, through increasing deciduous shrub survival, growth, and vigor.

List the objectives of this restoration application.

The objectives include:

(1) Improve riparian and wetland diversity, vigor and function.
(2) Improve floodplain function.
(3) Improve water capture and storage within the floodplain.
(4) Improve stream shade and temperatures.
(5) Increase food web forage for threatened fish.
(6) Improve the food source for beaver.

Project History

Continuation - Are you requesting funds to continue work on a project previously funded by OWEB where that work did not result in a completed project?

❍ Yes
● No

Resubmit - Have you submitted, but were not awarded an OWEB application for this project before?

❍ Yes
● No

Phased - Is proposed work in this application a phase of a comprehensive watershed restoration plan or project?

❍ Yes
● No

Plans and Salmon

Is the proposed restoration activity(ies) identified in a local assessment or other plan?

● Yes
❍ No

Provide name of local plan, Watershed assessment or other locally relevant document.

This project is located on Tier 1, 2 and 3 streams within the Upper Grande Ronde Atlas.

Will this project benefit salmon or steelhead?

● Yes
❍ No

✓Snake River Basin - Steelhead
✓Snake River Spring/Summer-run - Chinook Salmon

How will the resulting restoration project benefit salmon or steelhead or their habitat?

The project will benefit salmon and steelhead habitat through increasing and improving deciduous shrub survival, growth and vigor. As a result, floodplain function will improve, stream shade will increase, stream temperatures will decrease, summer flows will increase, forage for fish will improve, and food sources for beavers will increase.

Does the project address a restoration action identified in a regional assessment or recovery plan?

❍ Yes
● No

Habitat Types

In which habitat type(s) are you proposing to work?

❑*Instream Habitat: below the ordinary high water mark (includes in-channel habitat restoration, bank stabilization, flow, fish screening, and fish passage)*

✓*Riparian Habitat: above the ordinary high-water mark of the stream and within the stream's floodplain. -- Details will follow.*

❑*Upland Habitat: above the floodplain and improves native habitat and watershed function.*

✓*Wetland Habitat: land or areas covered, often intermittently, with shallow water or have soil saturated with moisture. -- Details will follow.*

❑*Estuarine Habitat: tidally influenced areas.*

Riparian Habitat

Select all applicable Riparian categories.

❑**Riparian road activities**

✓Fencing and other materials for habitat protection

Select all the actions you propose to implement to address the problem.

❑*Fencing*
✓*Exclusion other than fencing*

Specify materials
Plantskydd will be applied to all deciduous vegetation 5' or less within 50' to 100' of the stream.

Miles of fencing and other materials for habitat protection
24

Riparian acres protected by fencing and/or other exclusion
364

✓Vegetation establishment or management

Select all the actions you propose to implement to address the problem.

❑*Planting*
❑*Non-native plant control*
❑*Prescribed burnings, stand thinning, stand conversions, silviculture*
❑*Juniper treatment*

❑Livestock management
❑Debris and Structure Removal

Is an objective of the riparian treatment(s) to address water quality limiting factors?
● Yes
❍ No

✓High Temperature

Total riparian acres to be treated:
364

Total riparian streambank miles to be treated
24

Are you proposing to treat one or both sides of streambank?
❍ One side
● Both sides

Left side of bank (miles)
24

Right side of bank (miles)
24

Stream miles
24

Wetland Habitat

Are you working in artificial or historic wetland habitat? (select one or both)

❑*Artificial wetland*
✓*Historic wetland*

Select all applicable Wetland categories.

❑**Wetland road activities**
❑**Channel modification including creation**

✓**Vegetation establishment or management**

Select all the actions you propose to implement to address the problem.

❑*Planting*
❑*Non-native plant control*

✓**Fencing and other materials for habitat protection**

Select all the actions you propose to implement to address the problem.

❑*Fencing*
✓*Exclusion other than fencing*

Specify materials
Plantskydd will be applied to deciduous vegetation via backpack sprayers.

Miles of fencing and other materials for habitat protection

24

Wetland acres protected by fencing and/or other exclusion
29

❑**Structure removal/modification/installation**
❑**Nonstructural removal and placement protection**

Total wetland acres to be treated:
29

Wrap-Up

Outcomes

Explain how the proposed restoration activities address the watershed problem described in the Problem Statement and Goals and Objectives.

Plantskydd reduces or eliminates browse on deciduous vegetation. Riparian deciduous vegetation is crucial to the development of a functioning floodplain, decreased stream temperatures and increased summer flows.

Describe the steps you will take to minimize adverse impacts to the site and adjacent lands during and after project implementation .

Plantskydd is an organic product and it is applied with back pack sprayers. Little if any disturbance occurs during all project activities.

Does this proposed project include outreach activities?

● Yes
❍ No

Describe these activities, as well as any related products, and explain how the proposed activities relate to the project's objectives.

The project will spray all deciduous vegetation 5' or less within 50' on each side, 3 times year, on the following streams: Sheep Creek (3 miles), Upper Grande Ronde River (2.5 miles), Chicken/West Chicken Creeks (2 miles), Meadow Creek (1 mile), Bear Creek (4.5 miles), Battle/Campbell Creeks (3 miles), and Fly Creek (2 miles). On Five Points Creek, deciduous vegetation will be sprayed 100' on each side of the stream for 6 miles.

As mentioned earlier, plantskydd is an organic spray, developed to prevent wild ungulate browse. The spray lasts for three months during the growing season and 6 months over the winter. Dry conditions must persist for 24 hours after treatment. The proposal is to spray the above streams for two years and establish photo points and conduct ocular utilization estimate surveys for browse.

Plantskydd is the "browse deterrent of choice" for leading North American forest companies, who use it to successfully to prevent plantation damage to millions of conifer and hardwood trees by deer, rabbits, elk, and moose. Nurseries and landscapers find it to be equally effective in protecting flowers, shrubs and ornamentals. It works by emitting an odor that animals associate with predator activity, repelling the animal before it nibbles on plants. The odor is not unpleasant to the applicator.

This product was applied on 7.5 miles of Sheep Creek, Upper Grande Ronde River and Chicken Creek for the past year and a half. The first year results consisted of 0 - 24% browse, depending on location and the type of protection around the plant (refer to attached power point for more information).

According to the research conducted on Meadow Creek, “Wild ungulate herbivory decreased planting survival by 30%, and growth by 73%, and was most detrimental to cottonwood….,increased likelihood of mortality by 5 times and suppressed growth by more than90%). “ This research was conducted over 2 grazing seasons.

Therefore, plantskydd potentially provides for a 50% decreased morality rate.

In order to ensure the effectiveness of the treatments, the following monitoring will occur:

* The Starkey Experimental Forest is going to conduct research on Upper Meadow Creek to determine the effectiveness of Planskydd as a browse deterrent. A detailed research plan will be conducted over a two year period. A separate proposal will be submitted by the Experimental Station, outlining the research plan and budget.

* Reports: A preliminary final report that describes the actual implementation of this project will be completed in the winter of 2018/2019. A final report would be completed in the winter of 2019/2020.

Design

Were design alternatives considered?

● Yes
❍ No

If yes, describe the design alternatives that were considered and why the preferred alternative was selected.

Alternative browse deterrents were considered, but determined to be less effective than Plantskydd.

Select the appropriate level of design for your project.

● No design is required.
❍ 10-30%: Conceptual design (evaluation of alternatives, concept-level plans, design criteria for project elements, rough cost estimates).
❍ 30-85%: Preliminary design (selection of the preferred alternative, draft plans, draft design report, preliminary cost estimates).
❍ 85-100%: Final design (final design report, plans, and specifications, contracting and bidding documents, monitoring plan, final cost estimate).

If work remains on the project's design, describe the work that remains to be done and when you expect to have it completed. If no design is required put "N/A"

N/A

Project Management

List the key individuals, their roles, and qualifications relevant to project and post project implementation. At a minimum include the following: project management, project design, project implementation, and project inspection.

Role	Name	Affiliation	Qualifications	Email	Phone
Project management.	Joe Platz	USFS	Joe Platz has a BS degree from OSU in Fisheries Science. He has been involved in designing/implementing restoration projects since 1989. Joe has been a biological technician for 10 years s & was a fish biologist for 14 years .	jplatz@fs.fed.us	(541) 962-8571
Project implementation and project inspection.	Scott Schaefer	USFS	Scott has a BS degree in Biology. He has worked on and/or monitored stream restoration projects for 8 years. He is currently our weed specialist is very familiar with treating vegetation.	sschaefer@fs.fed.us	(541) 962-8550

List the major project elements and time schedule for each, including post project implementation.

Element	Start Date	End Date
Agreements, contract, and project management.	8/2017	4/2018
project imlementation and project inspection.	4/2018	11/2019

Element	Q3 2017	Q4 2017	Q1 2018	Q2 2018	Q3 2018	Q4 2018	Q1 2019	Q2 2019	Q3 2019	Q4 2019
Agreements, contract, and project management.										
project imlementation and project inspection.										

Optional Monitoring

OPTIONAL: Restoration Project Monitoring

❑*Salmonid Monitoring*
❑*Non-salmonid biological monitoring*
❑*Water (quantity) flow monitoring*
❑*Water quality monitoring*
❑*Rangeland monitoring*
✓*Onsite*
❑*Downstream*
❑*Upstream*
❑*Upslope*
✓*Effectiveness monitoring will be conducted for this project*

Budget

Item	Unit Type	Unit Number	Unit Cost	OWEB Funds	External Cash	External In-Kind	Total Costs
Salaries, Wages and Benefits							
			$0	$0	$0	$0	$0
Category Sub-total				$0	$0	$0	$0
Contracted Services							
			$0	$0	$0	$0	$0
Category Sub-total				$0	$0	$0	$0
Travel							
			$0	$0	$0	$0	$0
Category Sub-total				$0	$0	$0	$0
Materials and Supplies							
			$0	$0	$0	$0	$0
Category Sub-total				$0	$0	$0	$0
Equipment and Software							
			$0	$0	$0	$0	$0
Category Sub-total				$0	$0	$0	$0
Other							
			$0	$0	$0	$0	$0
Category Sub-total				$0	$0	$0	$0
Modified Total Direct Cost Amounts				$0	$0	$0	$0
Indirect Costs							
		0%			Indirect Cost Total: $0		
Total				$0	$0	$0	$0

If the budget includes unusually high costs and/or rates, provide justification for those costs and/or rates.

If the budget identifies a contingency amount for specific line item(s) within the Contracted Services and Materials and Supplies budget categories, explain the specific reasons a contingency is needed for each line item. Contingencies are line-item specific and cannot be used for other costs.

Funding and Match

No Fund Sources have been identified for this application.

Do match funding sources have any restrictions on how funds are used, timelines or other limitations that would impact the portion of the project proposed for OWEB funding?

❍ Yes
❍ No

Do you need state OWEB dollars (not Federal) to match the requirements of any other federal funding you will be using to complete this project?

❍ Yes
❍ No

Does the non-OWEB funding include NOAA/PCSRF funds?

❍ Yes
❍ No

Uploads

Map: RipPlantskydd_Vicinity_FivePtAddition_082017.pdf **- Vicinty map**

Map: Riparian_Plantskydd_FivePtAddition_082017.pdf **- Project map**

Permit Page

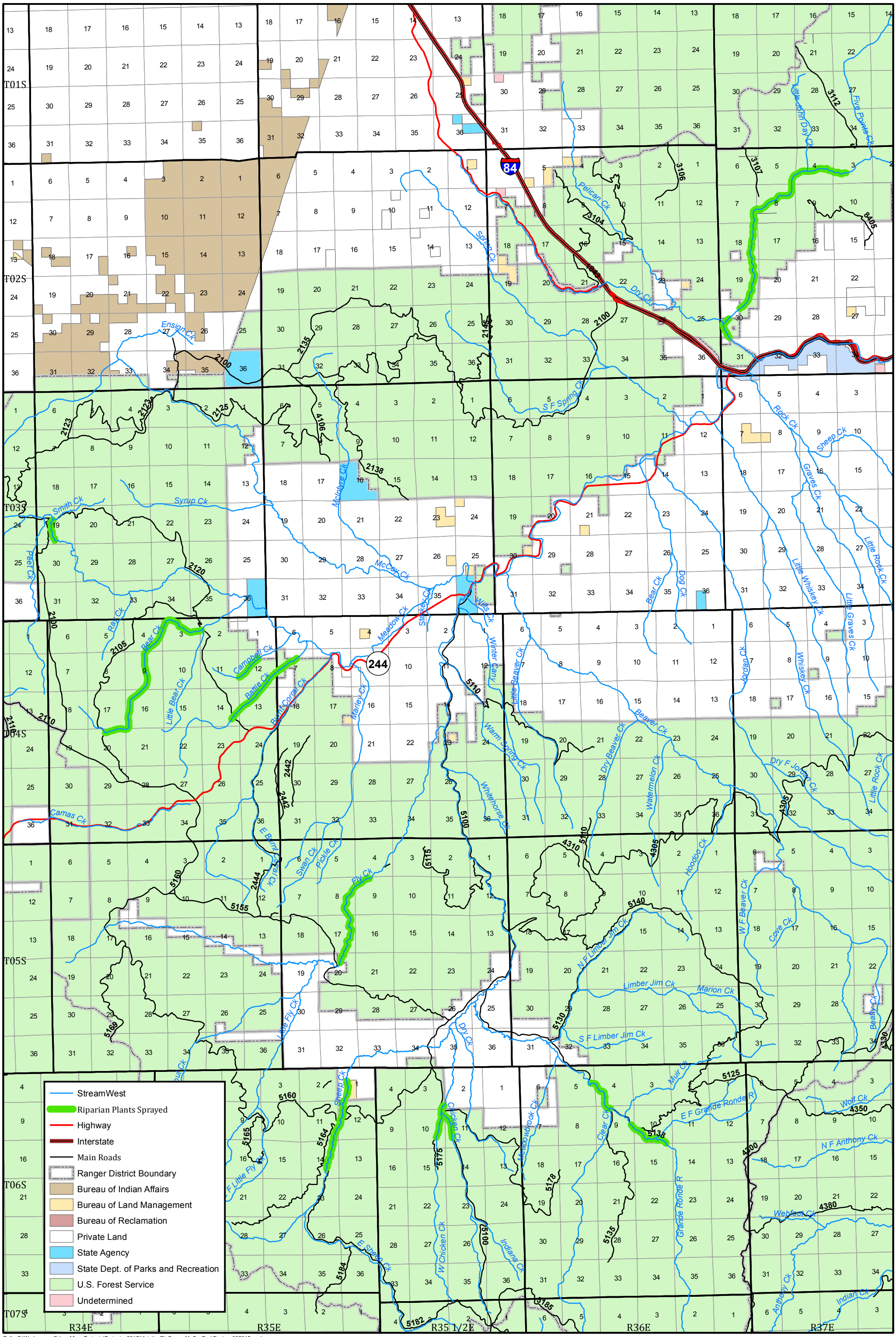
No Permits have been identified for this application.

Riparian Plantskydd Spray Project
Vicinity Map

Date: 8/30/2017

N

Miles
2 0 2 4

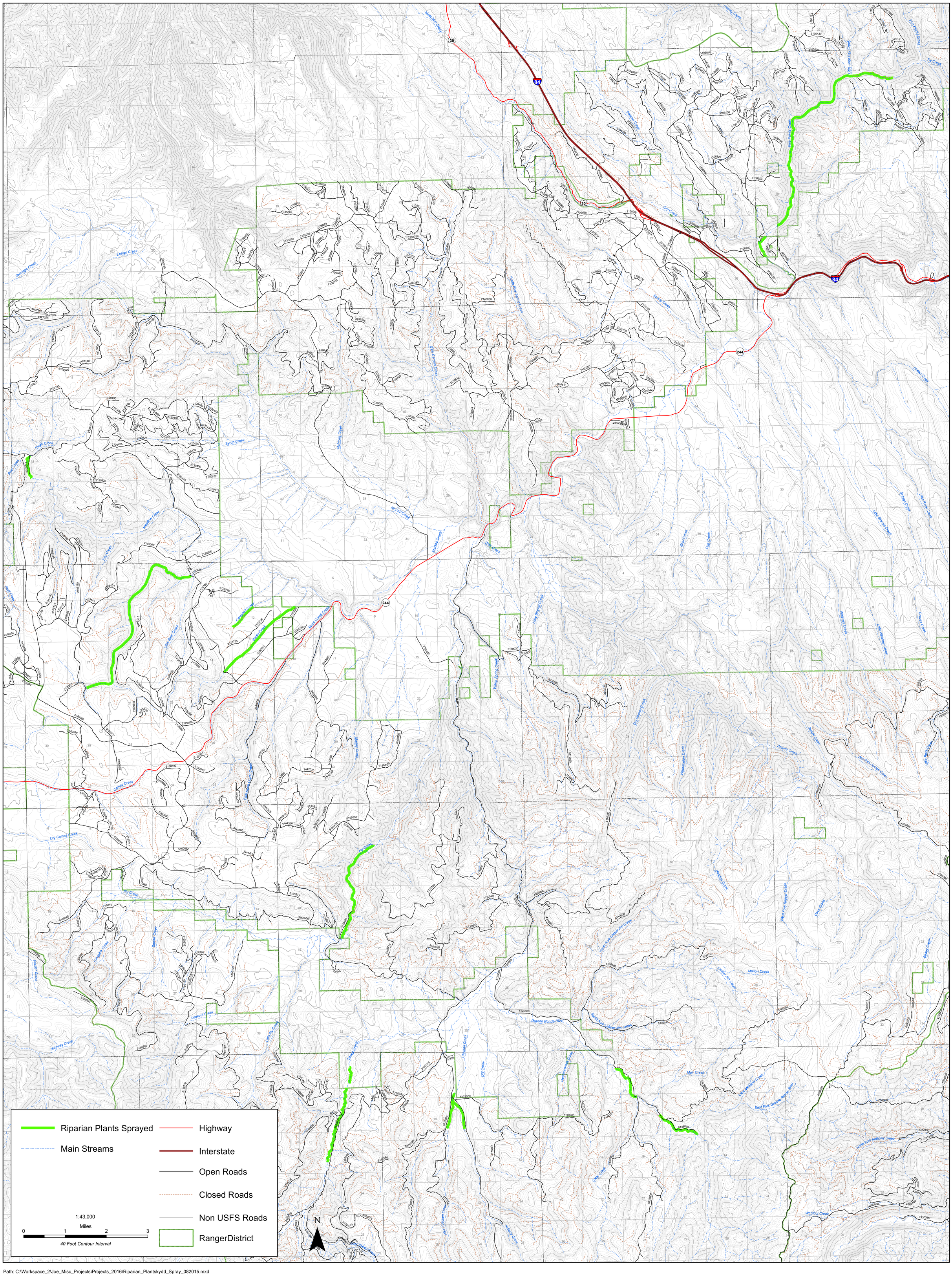


StreamWest
Riparian Plants Sprayed
Highway
Interstate
Main Roads
Ranger District Boundary
Bureau of Indian Affairs
Bureau of Land Management
Bureau of Reclamation
Private Land
State Agency
State Dept. of Parks and Recreation
U.S. Forest Service
Undetermined

Path: C:\Workspace_2\Joe_Misc_Projects\Projects_2016\Vicinity_RipSpray_McCoyDarkEnsign_082015.mxd

Date: 8/30/2017

Riparian Plantskydd Spray Project



Path: C:\Workspace_2\Joe_Misc_Projects\Projects_2016\Riparian_Plantskydd_Spray_082015.mxd