

**Cooperative Watershed Management and Restoration
Stream Crossing Inventory & Stream Restoration**

Appendix C: Statement of Work
*****Updates Modification 9*****

I. Objectives:

1. Data collection at road and trail stream crossings in the project area (Figure 1).
2. Evaluate inventory data for road stream crossing risk analysis and prioritization for replacement.
3. Conduct training and QA/QC with contractor (MSA).
4. Collect data at up to approximately 1,000 sites each field season (March to November) during the 2021 & 2022 field seasons.
5. Enter into agreements with County Highway Departments to address high priority fish passage barriers and failing culverts to restore streams and provide broad local benefits (timber harvest access, public recreation access, town road infrastructure, flood resiliency, etc.)
6. To be eligible for a culvert replacement stream restoration the project needs to address the following issues:
 - a. failing infrastructure
 - b. negative environmental impacts
 - c. involvement of the local County Highway Department
 - d. meet all best management practices to protect water quality
 - e. a resolution in support of the project must be passed by the appropriate Town and/or County Board

II. Tasks and Timeline:

Timeline	Task Description	Cost Estimate
Winter 2021	Pay for 2020 inventory work once QA/QC is complete (64 sites inventoried)	\$9,700
	DNR Project Management	\$2,400
2021 Field Season*	DNR contractor will inventory approximately 1,000 sites.	\$150,000 – \$200,000
	Taylor County Stream Restoration (6 culverts)	\$120,000
	Ashland County Stream Restoration (1 culvert)	\$70,000
	DNR Project Management	\$4,800
Winter 2022	DNR Data analysis & Project Management	\$2,400
2022 Field Season*	DNR contractor will inventory approximately 1,000 sites.	\$150,000 – \$200,000
	Enter into agreements with County Highway Departments to address high priority stream restoration sites. (Locations to be determined.)	\$200,000
	DNR Project Management	\$4,800

* The field season typically runs from March through November. The DNR project manager will also track expenditures by DNR fiscal year.

III. Point of Contacts:

- Forest Service: Chris Ester 715-362-1304, Christopher.Ester@usda.gov
- Wisconsin DNR: Jon Simonsen 715-367-1936, Jonathan.Simonsen@wisconsin.gov

IV. Maps/Diagrams:

- Next page shows a map of project area watersheds for the stream crossing inventory (Figure 1) and 2021 stream crossing replacement locations (figure 2 and 3)

Figure 1

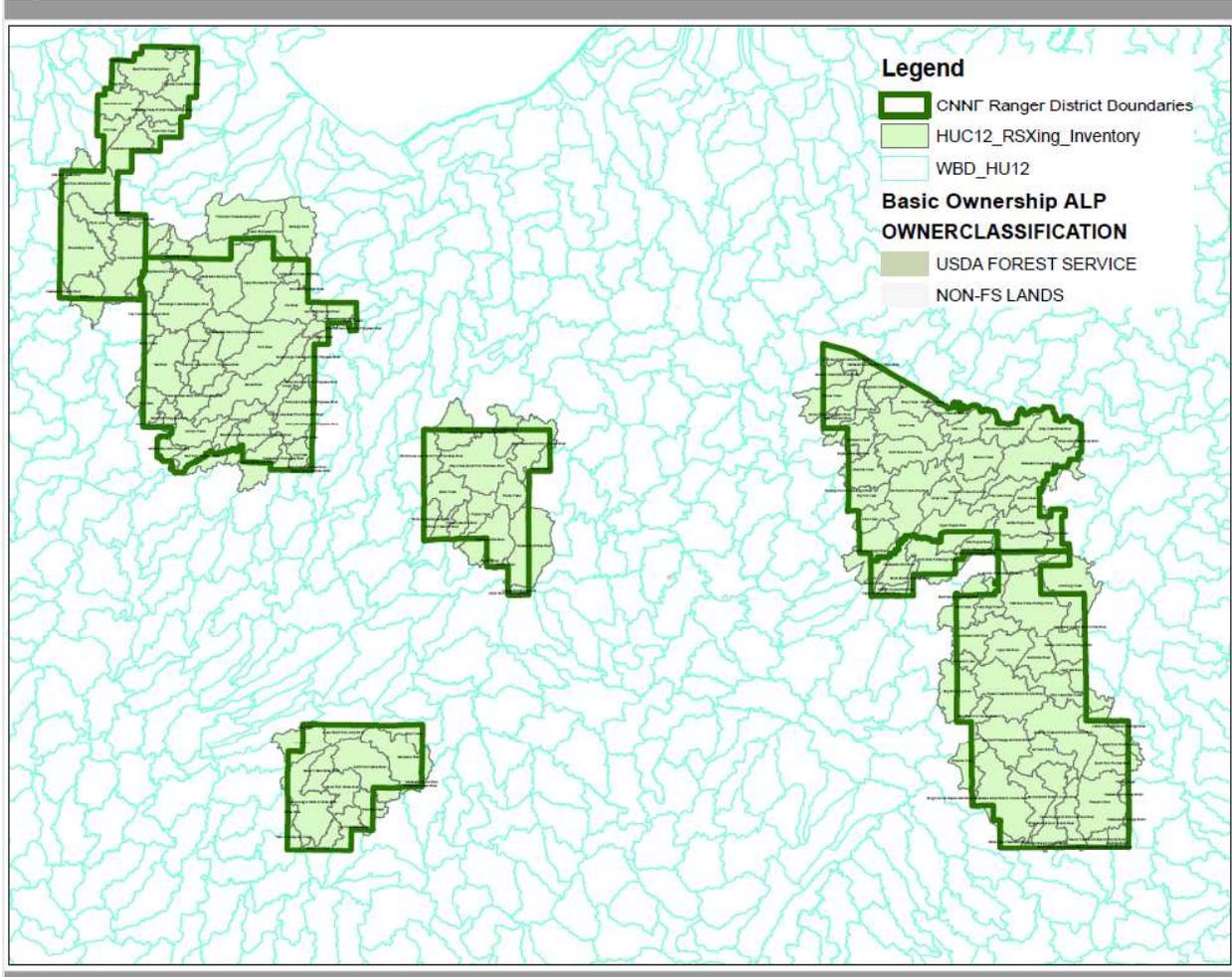
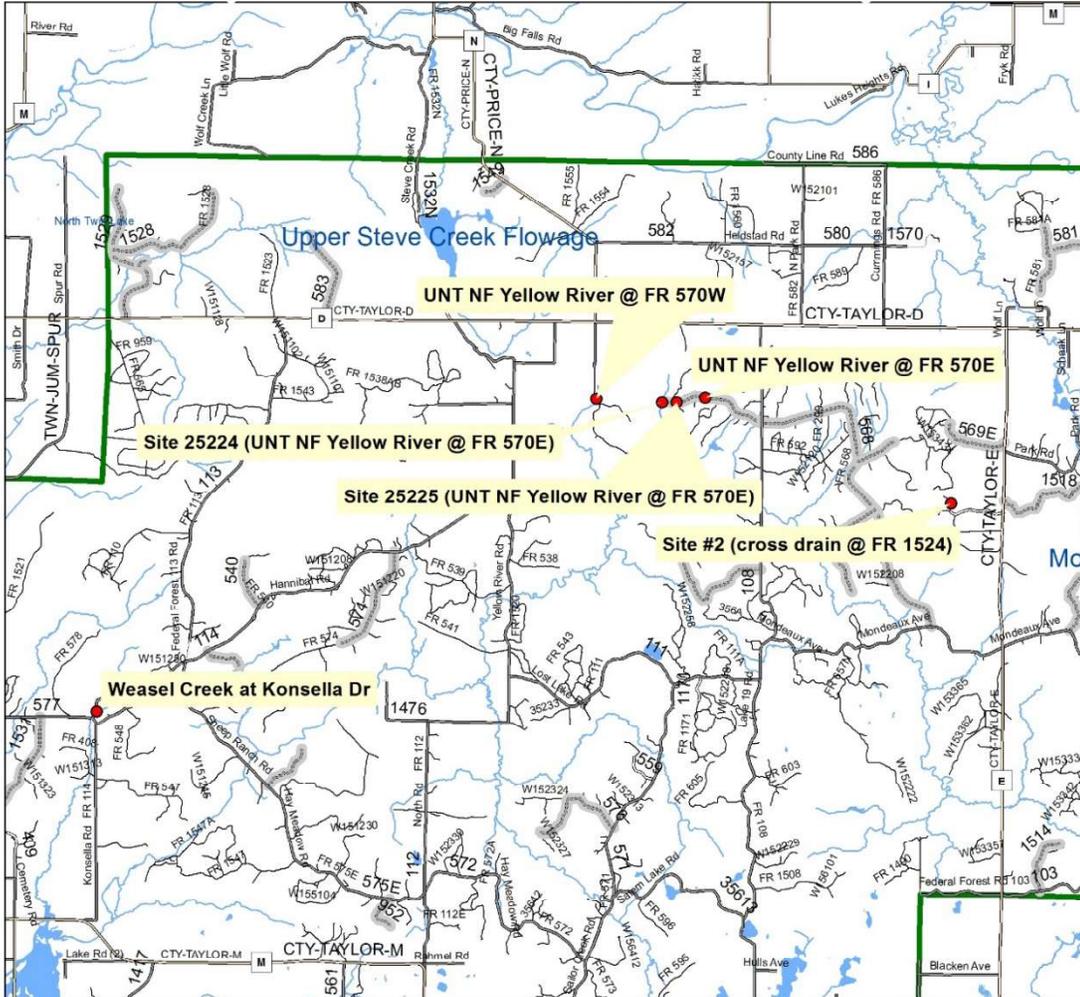


Figure 2

**Taylor County, GNA PI, 2021, Sites
(Medford Park Falls RD, Medford Unit)**



Legend	WisDOT Local Roads	MVUM Roads
● Taylor Co, 2021, Sites	— Local Road	— 1 Roads Open to All Vehicles, Yearlong
■ NHD Waterbody	— County Highway	— 2 Roads Open to All Vehicles, Seasonal
■ NHD Area (wide rivers)	— State Highway	— 3 Roads Open to Highway Legal Vehicles Only, Yearlong
— NHD Flowline		— 4 Roads Open to Highway Legal Vehicles Only, Seasonal
□ CNNF Ranger District Boundaries		— 11 Special Designation, Yearlong
		— 12 Special Designation, Seasonal
		— 14 State or US Highway
		— 15 Other Public Roads

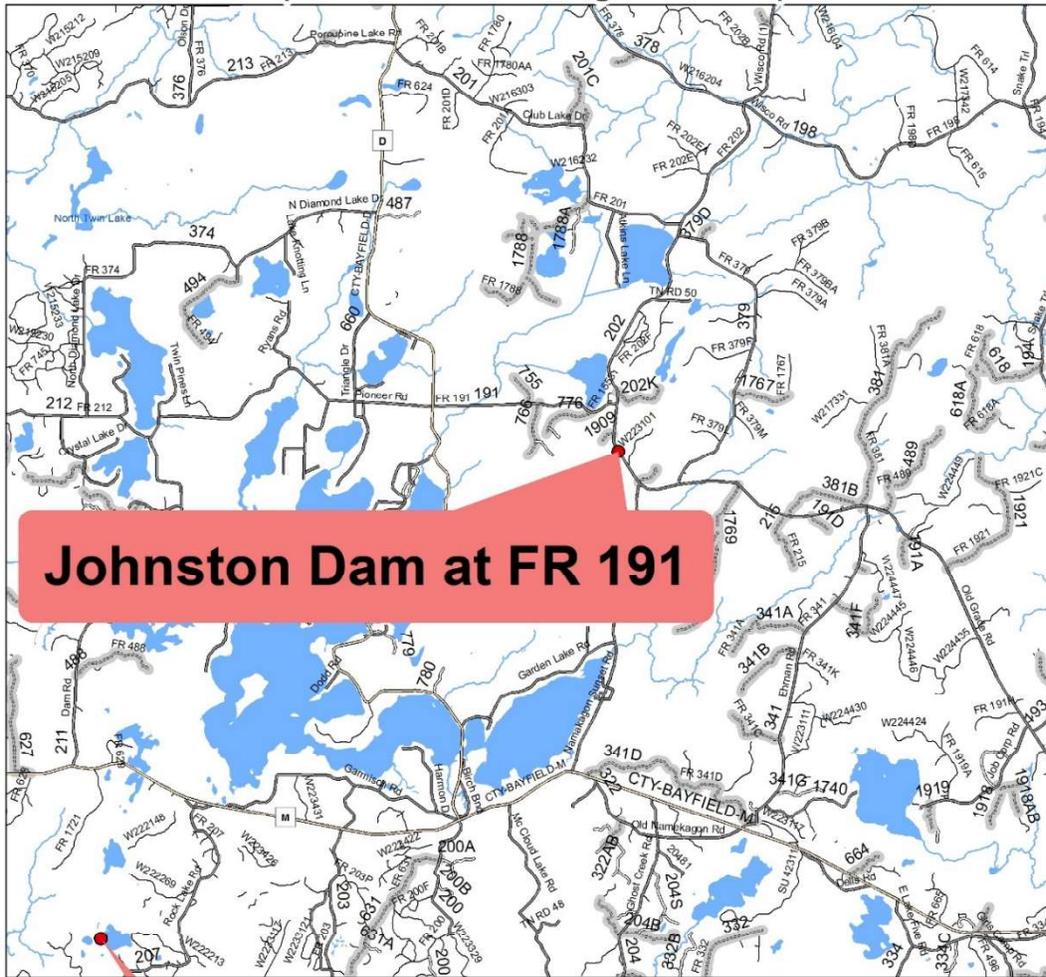


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Figure 3

Ashland County, GNA PI, 2021, Sites (Greate Divide Ranger District)



Legend

- Ashland County, 2021, Sites
- NHD Waterbody
- NHD Area (wide rivers)
- NHD Flowline
- CNNF Ranger District Boundaries

WisDOT Local Roads

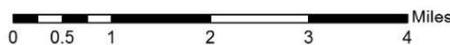
- Local Road
- County Highway
- State Highway

MVUM Roads

- 1 Roads Open to All Vehicles, Yearlong
- 2 Roads Open to All Vehicles, Seasonal
- 3 Roads Open to Highway Legal Vehicles Only, Yearlong
- 4 Roads Open to Highway Legal Vehicles Only, Seasonal
- 11 Special Designation, Yearlong
- 12 Special Designation, Seasonal
- 14 State or US Highway
- 15 Other Public Roads



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**Cooperative Watershed Management and Restoration
Stream Crossing Inventory**

APPENDIX C: Statement of Work

New Project

I. Objectives:

1. Conduct a road and trail stream crossing inventory within and adjacent to the Forest.
2. Collect GIS based data that will enable road stream crossing risk analysis and prioritization for replacement.
3. Update inventory procedures including field and GIS metrics to enable a road stream crossing prioritization and flood risk rating system.
4. Contract for GIS analysis to identify road and flowline intersections (of sufficient drainage basin size) to determine the field locations to collect inventory data.
5. Contract and train seasonal positions to collect field data.
6. Data to be collected in all watersheds within the boundary of the Forest. Select priority watersheds connected/ adjacent the Forest will also be included (see section IV).
7. Contract GIS analysis to identify watershed flood risk rating parameters (stream power, basin area, available storage, etc.).
8. Set up a web-based GIS tool for data collection and management.
9. Implement a DNR GIS ArcHub strategy for data sharing and mapping in coordination with stakeholders.
10. Complete project within five years.

II. Tasks and Timeline:

Timeline	Task Description	Cost Estimate
Project Management	Administer project, reviewing data, reporting, monitoring	\$11,170 / year
GIS: Annual- pre field season	GIS evaluation to determine inventory sites	\$5,000 / year
	GIS evaluation of flood risk watershed characteristics	\$25,000 / year
	ArcHub community license sharing with stakeholders	\$5,000 / year
Project supplies	Tablets, waders, GPS, etc. ¹	\$12,000
Annual field season (May to October)	Crew of 4 to collect inventory data ²	\$80,000 / year
	Field supplies	\$4,000/year
	Vehicle rental & gas	\$31,000/ year

¹ This is a one-time purchase. The re-occurring supply estimate is intended to reflect replacement of more durable items (waders, batteries, etc.).

² A crew of 4 would be hired for the first field season. Subsequent years may expand the field crew.

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IV. Maps/Diagrams:

- Next page shows a map of watersheds to be inventoried.

