



### MODIFICATION OF GRANT OR AGREEMENT

1. U.S. FOREST SERVICE GRANT/AGREEMENT NUMBER: <b>15-GN-11091300-109</b>	2. RECIPIENT/COOPERATOR GRANT or AGREEMENT NUMBER, IF ANY:	3. MODIFICATION NUMBER: <b>010</b>
4. NAME/ADDRESS OF U.S. FOREST SERVICE UNIT ADMINISTERING GRANT/AGREEMENT (unit name, street, city, state, and zip + 4): <b>Chequamegon-Nicolet National Forest Attention: Nicole Peltier 500 Hanson Lake Road Rhinelander, WI 54501</b>	5. NAME/ADDRESS OF U.S. FOREST SERVICE UNIT ADMINISTERING PROJECT/ACTIVITY (unit name, street, city, state, and zip + 4): <b>Chequamegon-Nicolet National Forest Attention: Adam Felts 500 Hanson Lake Road Rhinelander, WI 54501</b>	
6. NAME/ADDRESS OF RECIPIENT/COOPERATOR (street, city, state, and zip + 4, county): <b>Wisconsin Department of Natural Resources Attention: Rebecca Diebel P.O. Box 7921 Madison, WI 53707</b>	7. RECIPIENT/COOPERATOR'S HHS SUB ACCOUNT NUMBER (For HHS payment use only):	

### 8. PURPOSE OF MODIFICATION

CHECK ALL THAT APPLY:	This modification is issued pursuant to the modification provision in the grant/agreement referenced in item no. 1, above.
<input type="checkbox"/>	CHANGE IN PERFORMANCE PERIOD:
<input type="checkbox"/>	CHANGE IN FUNDING:
<input type="checkbox"/>	ADMINISTRATIVE CHANGES:
<input checked="" type="checkbox"/>	OTHER (Specify type of modification): Appendix A - Restoration Projects Operating Plans Year 6; Appendix B - Financial Plan Year 6 & Year 7 (additions and updates); and Appendix C - Restoration Projects Statement of Work Project Areas Year 6

**Except as provided herein, all terms and conditions of the Grant/Agreement referenced in 1, above, remain unchanged and in full force and effect.**

9. ADDITIONAL SPACE FOR DESCRIPTION OF MODIFICATION (add additional pages as needed):

### 10. ATTACHED DOCUMENTATION (Check all that apply):

<input checked="" type="checkbox"/>	Revised Scope of Work
<input checked="" type="checkbox"/>	Revised Financial Plan
<input type="checkbox"/>	Other:

### 11. SIGNATURES

**AUTHORIZED REPRESENTATIVE:** BY SIGNATURE BELOW, THE SIGNING PARTIES CERTIFY THAT THEY ARE THE OFFICIAL REPRESENTATIVES OF THEIR RESPECTIVE PARTIES AND AUTHORIZED TO ACT IN THEIR RESPECTIVE AREAS FOR MATTERS RELATED TO THE ABOVE-REFERENCED GRANT/AGREEMENT.

11.A. WISCONSIN DNR SIGNATURE  (Signature of Signatory Official)	11.B. DATE SIGNED <b>6/3/2021</b>	11.C. U.S. FOREST SERVICE SIGNATURE <b>PAUL STRONG</b> Digitally signed by PAUL STRONG Date: 2021.06.04 06:47:47 -05'00' (Signature of Signatory Official)	11.D. DATE SIGNED
11.E. NAME (type or print): <b>HEATHER BERKLUND</b>		11.F. NAME (type or print): <b>PAUL I.V. STRONG</b>	
11.G. TITLE (type or print): <b>Chief State Forester</b>		11.H. TITLE (type or print): <b>Forest Supervisor</b>	

### 12. G&A REVIEW

12.A. The authority and format of this modification have been reviewed and approved for signature by: <b>NICOLE PELTIER</b> Digitally signed by NICOLE PELTIER Date: 2021.05.24 16:01:45 -05'00' <b>NICOLE PELTIER</b>	12.B. DATE SIGNED
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#### Burden Statement

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**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:**

<b>Timeline</b>	<b>Task Description</b>	<b>Cost Estimate</b>
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

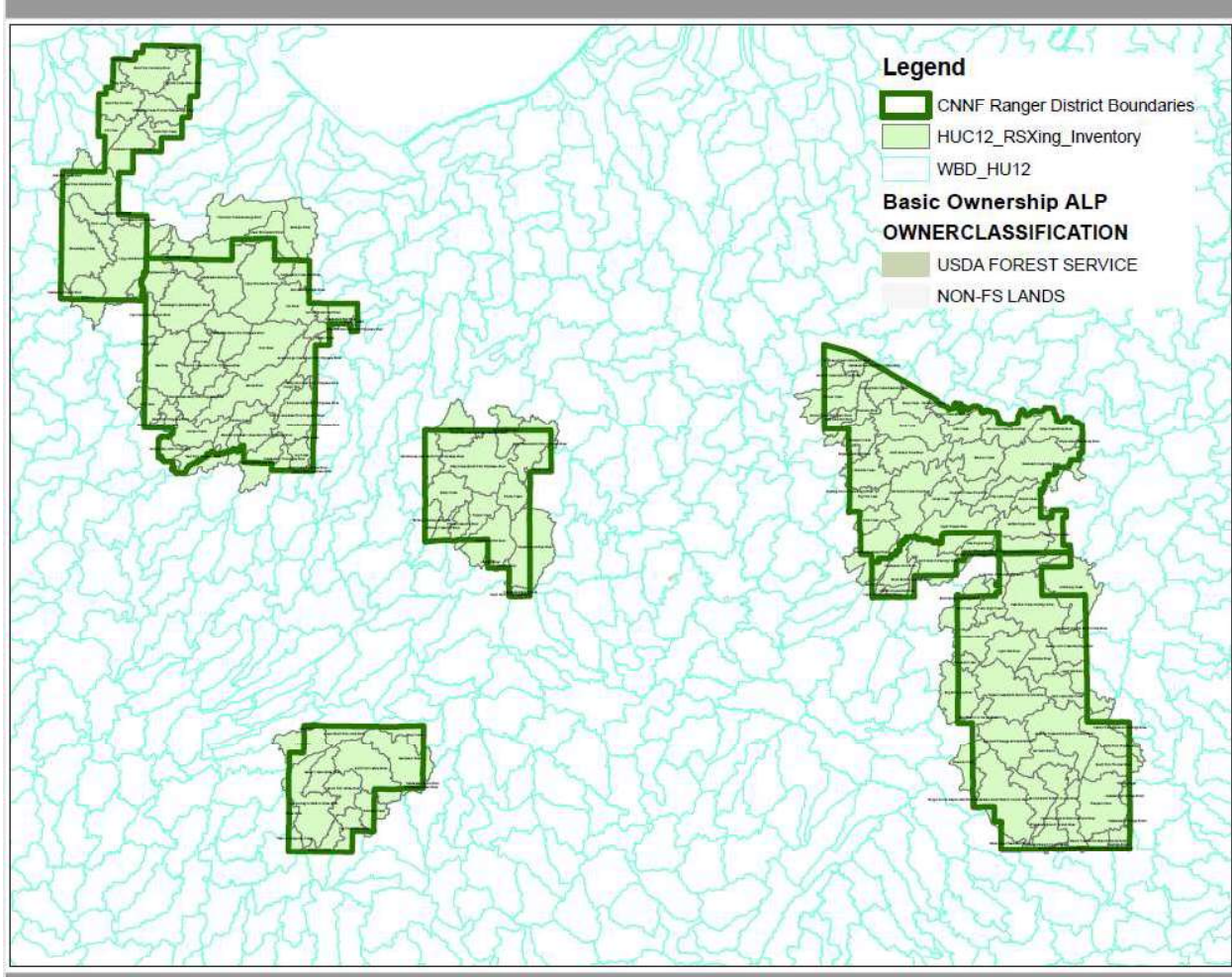
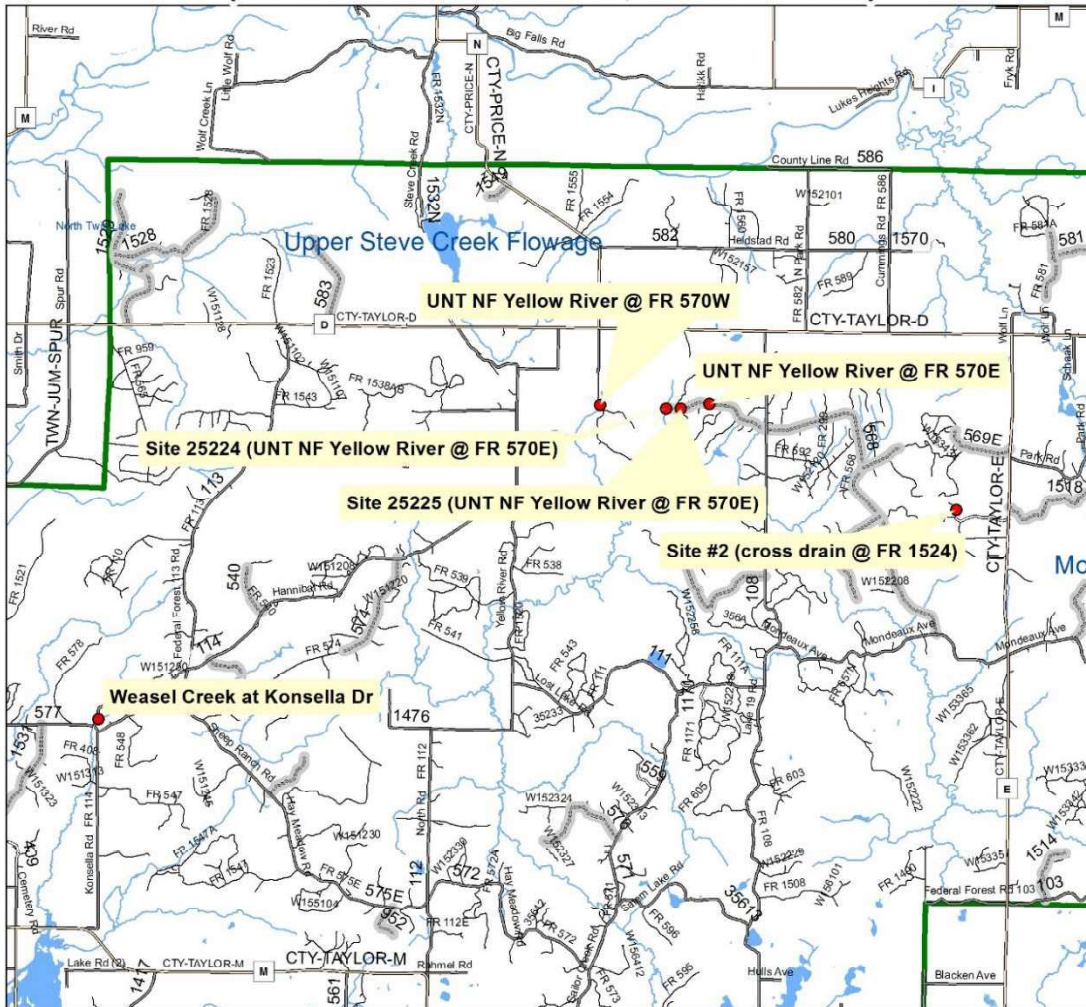




Figure 2

### 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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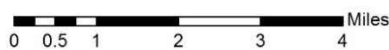
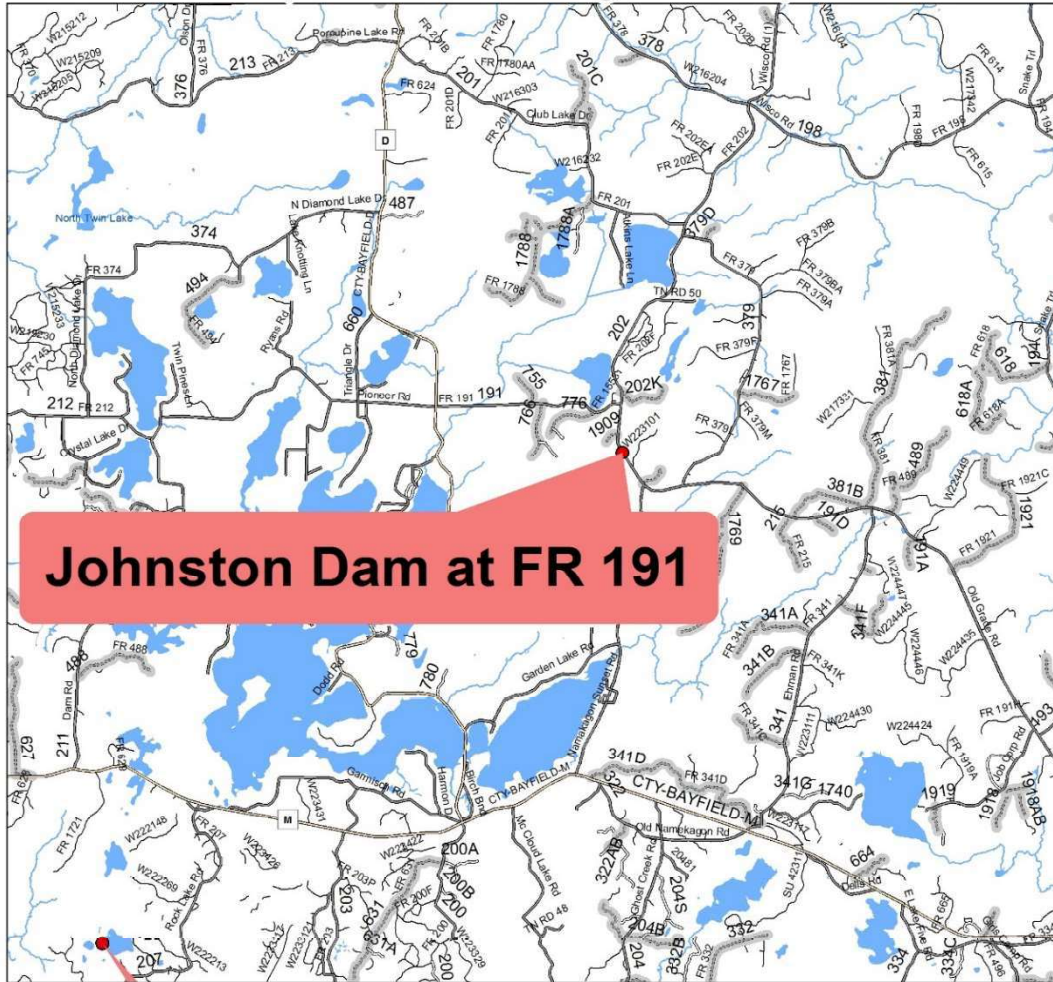


Figure 3

**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**

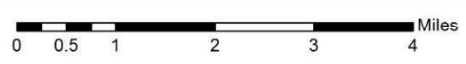
- Local Road
- County Highway
- State Highway

**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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## Coldwater Community Restoration and Maintenance

### Appendix C: Statement of Work

#### \*\*\*Update from Modification 8\*\*\*

#### I. Objectives/Project Description:

1. Restore and protect coldwater ecosystems by implementing beaver management on selected wild rice beds and other infrastructure.
2. Streamline the existing cooperative beaver management program among USDA FS, WDNR and USDA-WS, to:
  - a. Gain efficiency in the restoration and protection of coldwater stream systems.
  - b. Accomplish in-stream habitat improvement projects.
  - c. Protect infrastructure (road-stream crossings, impoundments, etc).
  - d. Protect wild rice resources.
3. Maintain approximately 560 miles of free flowing streams on National Forest lands.

#### II. Tasks and Timeline:

The tasks below are expected to occur annually for the life of the GNA Supplemental Project Agreement #1 (unless the USDA Forest Service or the WDNR choose otherwise) and the money amount on the financial plan is a per year amount. Estimated annual costs are around \$200,000.

The tasks and general timeline for this project are as follows:

Time	Description
Around January (occurs annually)	Have signed agreement with USDA-Wildlife Services for beaver control activities on CNNF lands. Beaver control starts in the Spring.
Around Oct./Nov. (occurs annually)	Conduct Fall beaver colony surveys (flights) in coordination with USDA-Wildlife Services.

#### III. Point of Contacts:

- Forest Service: **Jason Krebill**, 715-362-1300 x1330, [Jason.krebill@usda.gov](mailto:Jason.krebill@usda.gov)
- Wisconsin DNR: **Rebecca Diebel**, 608-444-5774, [rebecca.diebel@wisconsin.gov](mailto:rebecca.diebel@wisconsin.gov)

**Common Stand Exam**

**Appendix C: Statement of Work**

**\*\*\*Adding 1,267 plots to original Modification 7 proposal\*\***

**Table 1: Summary of Previous Acres within CSE Project**

District	Project Area	Est. No. Stands	Estimated Acres	Est. No. Plots	Data Needed By	Cost Estimate	GNA Agreement
<del>Great Divide**</del>	<del>Morse-Stockfarm</del>	<del>431</del>	<del>14,097</del>	<del>2,315</del>	<del>June 30, 2020</del>	<del>-</del>	<del>Modification #7</del>
<del>Washburn**</del>	<del>Red Pine Rotation</del>	<del>116</del>	<del>6,555</del>	<del>741</del>	<del>June 30, 2020</del>	<del>-</del>	<del>Modification #7</del>
<del>Eagle River-Florence**</del>	<del>Lone Duck</del>	<del>211</del>	<del>3,540</del>	<del>852</del>	<del>June 30, 2020</del>	<del>-</del>	<del>Modification #7</del>
Great Divide	Morse	143	4,846	777	June 30, 2021	\$39,000	Modification #9
<b>Totals:</b>		143	4,846	777	-	\$39,000	

\*\*This workload was mutually canceled due to capacity and contracting issues that were not foreseen. In summary, all workload from Modification #7 was canceled if it wasn't added to Agreement #1, Modification #9.

**Table 2: Summary of Additional Acres**

District	Project Area	Est. No. Stands	Estimated Acres	Est. No. Plots	Data Needed By	Cost Estimate	GNA Agreement
Lakewood-Laona	Armstrong Creek	88	4,974	593	July 1, 2022	\$30,000	Modification #10
Great Divide	Stockfarm	136	3,973	674	July 1, 2022	\$34,000	Modification #10
<b>Totals:</b>		224	8,947	1,267	-	\$64,000	

**Table 3: LKLN Stand Details, Modification #10**

Compartment	Stand	Acres	# of Plots
05093	25	42	7
05093	9	14	4
05093	27	33	6
05093	4	358	20
05093	26	30	5
05093	29	55	7
05093	24	29	5
05093	10	31	6
05093	8	53	7

Estimated Start: In Progress

Estimated Completion: June 2022

Good Neighbor Supplement Project Agreement 1 – Modification 10

<b>Table 3: LKLN Stand Details, Modification #10</b>			
<b>Compartment</b>	<b>Stand</b>	<b>Acres</b>	<b># of Plots</b>
05093	23	25	5
05093	1	43	7
05093	32	409	22
Sub-Total		1123	101
05096	23	52	7
05096	8	33	6
05096	27	22	5
05096	10	29	5
05096	26	21	5
05096	1	32	6
05096	7	31	6
05096	6	30	5
05096	21	44	7
Sub-Total		294	52
05097	14	282	17
05097	5	79	8
05097	10	28	5
05097	1	42	7
05097	4	22	5
05097	15	18	4
05097	20	23	5
05097	16	25	5
05097	21	81	9
05097	6	87	9
Sub-Total		687	74
05098	5	157	12
05098	18	59	7
05098	15	137	11
05098	19	56	7
05098	17	45	7
05098	11	12	4
05098	12	103	10
05098	23	33	6
05098	10	43	7
05098	21	48	7
05098	26	17	4
05098	24	45	7
Sub-Total		754	89
05099	5	26	5

Estimated Start: In Progress  
 Estimated Completion: June 2022



Good Neighbor Supplement Project Agreement 1 – Modification 10

<b>Table 3: LKLN Stand Details, Modification #10</b>			
<b>Compartment</b>	<b>Stand</b>	<b>Acres</b>	<b># of Plots</b>
05099	13	13	4
05099	3	26	5
05099	12	51	7
05099	19	41	7
05099	6	16	4
05099	11	78	8
05099	33	51	7
05099	7	25	5
05099	27	26	5
05099	20	56	7
05099	31	27	5
05099	9	76	8
05099	14	67	8
05099	28	15	4
05099	1	11	4
05099	8	41	7
05099	2	263	16
05099	4	174	13
Sub-Total		1081	129
05100	2	184	13
05100	12	28	5
05100	11	10	3
05100	10	34	6
05100	13	10	3
05100	15	23	5
05100	7	35	6
05100	6	33	6
05100	18	52	7
05100	14	32	6
05100	4	21	5
05100	16	24	5
Sub-Total		486	70
05101	21	81	9
05101	7	13	4
05101	8	19	4
05101	13	20	4
05101	22	18	4
05101	10	22	5
05101	11	30	5
05101	3	25	5
05101	2	18	4

Estimated Start: In Progress  
 Estimated Completion: June 2022

Good Neighbor Supplement Project Agreement 1 – Modification 10

<b>Table 3: LKLN Stand Details, Modification #10</b>			
<b>Compartment</b>	<b>Stand</b>	<b>Acres</b>	<b># of Plots</b>
05101	20	23	5
05101	9	38	6
05101	4	12	4
05101	17	37	6
05101	5	193	13
Sub-Total		549	78

<b>Table 4: Great Divide Stand Details (Contract), Modification #10</b>		
<b>Compartment/Stand #</b>	<b>Acres</b>	<b># of Plots</b>
053/2	10	3
053/7	19	4
053/10	26	5
053/12	88	9
053/16	9	3
053/18	15	4
053/20	13	4
053/33	6	3
053/37	22	5
053/39	8	3
053/40	12	4
053/41	15	4
053/42	15	4
053/45	23	5
053/48	14	4
059/1	5	3
059/4	100	9
059/5	11	4
059/7	7	3
059/9	28	5
059/10	13	4
059/12	64	8
059/13	18	4
059/15	24	5
059/16	49	7
059/17	9	3
059/19	49	7
059/21	44	7

Estimated Start: In Progress  
 Estimated Completion: June 2022

Good Neighbor Supplement Project Agreement 1 – Modification 10

<b>Table 4: Great Divide Stand Details (Contract), Modification #10</b>		
<b>Compartment/Stand #</b>	<b>Acres</b>	<b># of Plots</b>
059/23	100	9
059/24	23	5
059/26	28	5
059/31	16	4
059/39	24	5
059/47	32	6
075/3	17	4
075/6	50	7
075/8	323	18
075/14	22	5
075/15	37	6
075/16	33	6
075/18	17	4
075/19	8	3
075/20	11	4
075/21	16	4
075/24	15	4
075/25	65	8
075/28	37	6
075/30	15	4
075/32	23	5
075/34	15	4
075/36	11	4
075/37	19	4
075/38	17	4
075/39	26	5
075/40	12	4
075/43	25	5
075/44	26	5
075/45	67	8
075/48	16	4
075/49	11	4
075/51	8	3
076/1	71	8
076/5	5	3
076/8	55	7
076/15	4	3

Estimated Start: In Progress  
 Estimated Completion: June 2022

Good Neighbor Supplement Project Agreement 1 – Modification 10

<b>Table 4: Great Divide Stand Details (Contract), Modification #10</b>		
<b>Compartment/Stand #</b>	<b>Acres</b>	<b># of Plots</b>
076/20	21	5
076/24	3	3
076/31	22	5
076/34	31	6
076/35	40	6
076/40	6	3
076/46	103	10
076/49	104	10
076/55	22	5
076/57	50	7
076/58	10	3
076/59	17	4
076/60	20	4
076/61	38	6
076/62	12	4
076/63	8	3
076/66	8	3
076/67	77	8
077/1	22	5
077/2	10	3
077/4	20	4
077/13	11	4
077/14	6	3
079/1	13	4
079/2	76	8
079/3	16	4
079/4	9	3
079/7	29	5
079/8	65	8
079/16	8	3
079/20	14	4
081/9	6	3
081/13	31	6
081/14	36	6
081/15	10	3
081/21	53	7

Estimated Start: In Progress

Estimated Completion: June 2022

Good Neighbor Supplement Project Agreement 1 – Modification 10

<b>Table 4: Great Divide Stand Details (Contract), Modification #10</b>		
<b>Compartment/Stand #</b>	<b>Acres</b>	<b># of Plots</b>
081/22	40	6
081/23	23	5
081/25	28	5
081/27	13	4
081/33	5	3
081/35	7	3
082/1	44	7
082/3	82	9
082/5	22	5
082/6	13	4
082/8	26	5
082/12	105	10
082/14	98	9
106/8	109	10
106/12	54	7
106/22	34	6
115/1	13	4
115/2	17	4
115/3	38	6
115/4	20	4
115/28	8	3
115/29	13	4
<b>Totals</b>	<b>3,355</b>	<b>592</b>



<b>Table 5: Great Divide Stand Details (WDNR), Modification #10</b>		
<b>Compartment/Stand #</b>	<b>Acres</b>	<b># of Plots</b>
118/2	14	4
118/3	43	7
118/4	132	12
118/6	19	4
118/16	32	6
135/1	20	4
135/2	7	3
135/3	189	14
135/4	33	6
135/5	34	6
135/11	66	8
135/16	22	5
135/17	7	3
<b>Totals:</b>	<b>618</b>	<b>82</b>

More detailed maps, specifications, data codes, etc. will be provided when needed.

Stand data updated 03/18/2021  
Ben Walker and Adam Felts

## **Groundwater and Geological Resource Inventory and Investigations Phase 2**

### **Appendix C: Statement of Work**

#### **\*\*\*Update from Modification 9\*\*\***

**I. Project Description:** Conduct groundwater and geological resource inventories and investigations of identified groundwater/surface water management issues within the Chequamegon-Nicolet National Forest (CNNF). Prepare reports and maps and make this information available to the Forest Service and public.

Phase 2 includes two years of work starting in FY2022. A separate statement of work will be provided for future phases.

#### **II. Forest Service Shall:**

1. Coordinate with WGNHS on project activities to support field work and deliverables.
2. Provide peer review for draft reports.

#### **III. State Shall:**

Complete the proposed project activities for three projects: 1) Drummond area water level investigation, 2) Investigation of hydrogeology near the Bend deposit in Taylor County, and 3) Groundwater level monitoring. See below for study tasks and timeline. The projected project end date for this phase of the work is June 2023.

#### **IV. Goals:**

1. Seepage lakes near Drummond WI, including Pigeon Lake, have historically fluctuated widely and currently are at a record high. The goals of this study are to improve our understanding of the groundwater-surface water system to manage and protect the water resource.
2. The Bend copper-gold ore deposit, located in Taylor County, is a potentially viable deposit for mining in an area with fairly little hydrogeologic data. An improved understanding of the local hydrogeology and surface water-groundwater interactions will improve the effectiveness of future management and protection of water resources in this region. The goals of this project are to collect baseline data and characterize the hydrogeology near the Bend ore deposit to contribute to the existing body of knowledge of hydrogeology in Northern Wisconsin and to inform management decisions and future environmental assessments should a mine be proposed.
3. Measure, report, and archive groundwater levels in monitoring wells; TA-217 and nested piezometers PR-088 and PR-089 (deep bedrock well).
4. Protect and manage the groundwater/surface water resource and associated ecosystems.

#### **V. Objectives:**

1. For the Drummond area seepage lakes: Characterize the hydrogeologic system around Pigeon Lake and evaluate potential future water level conditions. The deliverable for this phase is an interim project report.

Estimated Start: In Progress

Estimated Completion: June 2023

## Good Neighbor Supplement Project Agreement 1 – Modification 10

2. For the Bend deposit study: 1) Characterize the groundwater and surface water system near the Bend deposit to inform the protection of water resources in this area, with a focus on characteristics relevant to a potential future mine; 2) collect and publish baseline water chemistry, water table, and stream flow data; and 3) contribute to our understanding of groundwater-surface water interactions in this part of the state where there is little hydrogeologic data. This is planned to be a 3-year project. The project deliverables will consist of an interim summary of work (included in this phase) and a final report in the following phase (year 3). A stream gage installed as part of this project is intended to continue with funding from GNA in future years.
3. Continue funding for US Geological Survey to measure, report, and archive groundwater levels in monitoring wells; TA-217 (Bend well) in the Medford Unit, Taylor County, and nested piezometers PR-088 and PR-089 (deep bedrock well) in the Park Falls Unit, Price County. The water level data will be published on the statewide monitoring level network website.

### **VI. Tasks and Timeline:**

The tasks and general timeline are as follows.

State FY 2021 – FY2022 (April 1, 2021 – June 30, 2022): Total Budget \$209,913

1. Bend hydrogeology (year 1 of 3): Budget \$134,696 (includes approximately \$25K installation and \$15.5K annual maintenance and reporting for stream gage)
  - a. Install 3-4 water-table monitoring wells in the glacial deposits overlying and near the Bend ore body. Monitor water levels and temperature in the wells.
  - b. Install long-term streamflow gaging station on the Yellow River at FR112/Yellow River Rd (completed by USGS). Real-time precipitation and discharge will be recorded on USGS website.
  - c. Monitor stream stage and temperature both at gaging station and at second location on the river. Collect periodic streamflow measurements at second location.
  - d. Collect baseline water quality data for both groundwater and surface water.
  - e. If Aquila plans more exploratory drillholes, coordinate with them to collect geophysical logs, packer tests, and flow logging.
2. Drummond area water level investigation: Budget \$70,228
  - a. Continue to monitor groundwater wells and sample water quality
  - b. Conduct geophysical surveys to evaluate bedrock depth and subsurface changes in key locations
  - c. Evaluate lake water balance
  - d. Prepare interim project report for USFS
3. Bayfield Peninsula: Budget \$4,989
  - a. Continue to monitor groundwater wells and precipitation
  - b. Interpret water quality samples and collected data

Good Neighbor Supplement Project Agreement 1 – Modification 10

4. Groundwater level monitoring: Budget included in Task 2
  - a. USGS will continue to monitor TA-217 (Bend well) in the Medford Unit, Taylor County, and nested piezometers PR-088 and PR-089 (deep bedrock well) in the Park Falls Unit, Price County from July 2021 to June 2023.

State FY 2023: Total budget \$150,822

1. Bend hydrogeology (year 2 of 3): Budget \$81,147 (includes approximately \$15.5K annual maintenance and reporting for stream gage)
  - a. Continue monitoring
    - i. Water levels and temperature in the groundwater wells.
    - ii. Real-time precipitation and discharge (completed by USGS).
    - iii. Stream stage and temperature both at gaging station and at second location on the river. Collect periodic streamflow measurements at second location.
    - iv. Baseline water quality data for both groundwater and surface water (quarterly sampling).
  - b. Evaluate groundwater interactions with the North Fork Yellow River using mini-piezometers, seepage meters, or similar instruments.
  - c. If river is accessible, collect spatially-dense stream data via canoe.
  - d. Conduct pumping tests in the groundwater wells to investigate hydraulic properties.
  - e. Provide an interim summary of data and work to USFS. This will consist primarily of monitoring data and a summary of the conceptual hydrogeologic model of the groundwater and stream system. A final report will be completed in the following phase.
2. Drummond area water level investigation: Budget \$69,675
  - a. Continue to monitor groundwater wells
  - b. Evaluate patterns in precipitation and lake levels with respect to future conditions through water balance analysis
  - c. Continue to analyze results of data collection
3. Groundwater level monitoring: Budget included in Task 2
  - a. USGS will continue to monitor TA-217 (Bend well) in the Medford Unit, Taylor County, and nested piezometers PR-088 and PR-089 (deep bedrock well) in the Park Falls Unit, Price County from July 2021 to June 2023.
  - b. Add Bayfield Peninsula wells to monitoring network.

For context, the below table inserts the above specific tasks with the tasks expected to be completed during the full lifetime of the project.

Time	Description	Phase
FY 2020 Projects	Bayfield Peninsula hydrogeology field data collection core drilling and cross section as part of WGNHS Pleistocene geologic mapping inventory for Bayfield County.	1
	Drummond area seepage lakes investigation of water level fluctuations. Install piezometers, collect data.	1
	Continue annual funding for US Geological Survey to measure, report, and archive groundwater levels in monitoring wells; TA-217 (Bend	1

Estimated Start: In Progress  
 Estimated Completion: June 2023

Good Neighbor Supplement Project Agreement 1 – Modification 10

	well) in the Medford Unit, Taylor County, and nested piezometers PR-088 and PR-089 (deep bedrock well) in the Park Falls Unit, Price County. The water quality/level data will be published on the statewide monitoring level network website.	
FY 2021 Projects	2nd year Bayfield Peninsula hydrogeology data analysis bore hole(s) and cross section as part of WGNHS Pleistocene geologic mapping inventory for Bayfield County.	1
	2nd year Drummond area seepage lakes investigation water level fluctuations.	1
	Measure, report, archive monitoring wells; TA-217, PR-088 and PR-089.	1
	Begin Bend site groundwater baseline study (April 2021).	2
FY 2022 Projects	Measure, report, archive monitoring wells; Two Bayfield Highlands wells (names TBD), TA-217, PR-088 and PR-089.	2
	3 <sup>rd</sup> year Bayfield Peninsula hydrogeology data collection	2
	3rd year Drummond area seepage lakes investigation water level fluctuations.	2
	1 <sup>st</sup> (full) year Bend Site groundwater baseline study.	2
FY 2023 Projects	Measure, report, archive monitoring wells; TA-217, PR-088 and PR-089, and Bayfield Peninsula well(s).	2
	4th year Drummond area seepage lakes investigation water level fluctuations.	2
	2 <sup>nd</sup> year Bend Site groundwater baseline study.	2
FY 2024 Projects	Measure, report, archive monitoring wells; TA-217, PR-088 and PR-089, and Bayfield Peninsula well(s).	
	5th year Drummond area seepage lakes investigation water level fluctuations.	
	3 <sup>rd</sup> year Bend site groundwater baseline study	
	Begin investigation of surface water/groundwater interactions in the Elvoy and Brule creeks watershed located within the Eagle River/Florence Ranger District in Vilas and Forest Counties.	
FY 2025 Projects	Measure, report, archive monitoring wells; TA-217, PR-088 and PR-089, and Bayfield Peninsula well(s).	
	Measure, report, archive Yellow River stream gage.	
	6 <sup>th</sup> year Drummond area seepage lakes investigation water level fluctuations.	
	2 year investigation of surface water/groundwater interactions in the Elvoy and Brule creeks watershed located within the Eagle River/Florence Ranger District in Vilas and Forest Counties.	

**IV. Point of Contacts:**

- **Forest Service: Greg Knight, 715-748-4875, [greg.knight3@usda.gov](mailto:greg.knight3@usda.gov)**
- **Wisconsin DNR: Rebecca Diebel, 608-444-5774, [Rebecca.diebel@wisconsin.gov](mailto:Rebecca.diebel@wisconsin.gov)**
- **Wisconsin Geological and Natural History Survey: Anna Fehling, [anna.fehling@wisc.edu](mailto:anna.fehling@wisc.edu)**

Estimated Start: In Progress  
 Estimated Completion: June 2023



## **Hazardous Fuels Reduction Projects**

### **Appendix A: Operating Plan**

#### **\*\*\*New Project\*\*\***

#### **I. Project Description:**

Across the Chequamegon-Nicolet National Forest (CNNF), hazardous fuel or woody biomass levels have exceeded desired levels outlined in our Forest Plan. The Good Neighbor Authority can help implement activities that help the Forest reduce these hazardous fuel levels to reduce the probability of wildfire occurrence. This project will outline these actions.

#### **II. Forest Service Shall:**

- Provide support and guidance on decisions regarding what needs to be accomplished, clarify the outputs.
  - Prepare and provide maps, shapefiles, work specifications, timing, and desired outcomes of projects to be accomplished.
- Provide limited field support to support the project and ensure it meets the agreed upon specifications.

#### **III. STATE Shall:**

- Facilitate hazardous fuels work agreed to in attached Statement of Works or Appendix C attachments.
- Coordinate with Forest Service local personnel on project details to be implemented via GNA on their Districts, ensuring a full understanding of the project's local goals, objectives, and anticipated delivery outcomes.
- Be responsible for conducting quality control of work being implemented to ensure it meets descriptions and specifications of the project outlined in the Statement of Work.
- Document, care for, and secure any equipment or materials purchased with funds from this agreement. Note, all equipment purchases must be below \$5,000 per unit.

#### **IV. Goals:**

- Accomplish needed workload that aids the CNNF in accomplishing hazardous fuels goals in the CNNF Land and Resource Management Plan (i.e. Forest Plan)
- Increase the efficiency of CNNF efforts in accomplishing the Forest Plan

#### **VII. Long Term Benefits:**

Reducing vegetation determined to be hazardous fuels reduces the wildfire threat to local communities, infrastructure, and forest resources. By managing and reducing hazardous fuels throughout the CNNF, the Forest is reducing the probability of forest resource loss and financial losses across Northern Wisconsin.

Also through this project, the Chequamegon-Nicolet National Forest will move closer to achieving the Forest Plan ecological goals, standards, and guidelines within hazardous fuels. One of these goals include, increasing the health and sustainability of the ecosystems within the National Forest (Forest Plan Goal 1).

**Hazardous Fuels Reduction Project**

**Appendix C: Statement of Work**

**\*\*\*New Project\*\*\***

Across the Chequamegon-Nicolet National Forest (CNNF) fuel or woody biomass levels have exceeded desired levels. Annually, the CNNF has hundreds of acres where fuels reduction is needed, and the Good Neighbor Authority will be able to help accomplish this. These actions will move the CNNF toward desired conditions described in the Land and Resource Management Plan (i.e., Forest Plan).

**I. Objectives:**

The CNNF’s overall objective is to treat, manipulate, or remove hazardous fuels, including but not limited to wind thrown trees, standing green trees, dead and down trees, dead standing trees, root sprung trees, broken trees, damaged trees, understory vegetation, saplings, regeneration, brush, and logging slash. Vegetation determined to be hazardous fuels by Forest Service employees need to be manipulated in a way to pose less of a threat to local communities, infrastructure, and forest resources in the event of a wildfire. This will be accomplished by whole tree removal, processing, chipping, masticating, off site removal, piling, roller chopping, incinerating etc.

**II. Tasks and Timeline:**

The tasks and general timeline for this project are as follows:

Time	Description	Cost Estimates
Beginning Summer 2021; estimate 18 months completion	Forest Service will supply stands/acres to perform designated fuel reduction activities, obtaining desired fuel heights and loads on given acres in Lakewood – Laona for <b>200-400 acres</b> . Acres completed will depend on stand sizes and ease of access.	\$200,000*
	Work can be accomplished anytime the snow depth is less than 4 inches. If resource damage is not occurring, the work can be completed or accomplished.	N/A

Additional detail concerning possible tasks and specifications can be found below.

\*Costs for this project range widely and will be calibrated as we accomplish this work. The Forest Service and the State will be in close communication during the project implementation and the project will stay within Grants and Agreement 10% cost estimation guidelines.

**ADDITIONAL DETAIL**

**General Specifications**

Different locations will require different treatments to achieve objectives set by Forest Service employees. Equipment likely to be used includes but is not limited to processors, forwarders, self-loading log trucks, skid steers, masticating heads, excavators, roller choppers, air curtain incinerators, chippers, etc. Operators are expected to have all necessary equipment to

## Good Neighbor Supplemental Project Agreement 1 – Modification 10

successfully accomplish tasks outlined here and any mutually agreed to before implementation begins.

- Removal of all downed timber greater than specified diameter within a specified area
- Removal of all standing timber greater than specified diameter with a lean of 10% or more
- Removal of all broken and root sprung timber
- Processing of merchantable timber 5" DBH or greater to 100" lengths
- Decking of processed merchantable timber near roadside
- Decking timber separately based on hardwood, conifer, and aspen
- Offsite removal of all materials to a site chosen by contractor
- Chipping, mulching, masticating and or incinerating of all woody material
- Removing, masticating, chipping, mulching, or incinerating of all non-merchantable size timber of a specified diameter
- Masticating, mulching, or chipping of logging slash and woody regeneration
- Once work has begun in a unit awarded by task order, work must be completed before moving to new location awarded by separate task order
- Prior to taking any equipment off a gravel-surfaced road into the woods, trails and openings, the Forest Service or State must inspect all equipment to be visually free of dirt, seeds, or plant parts that may contain invasive species. Expectation is for equipment to have been cleaned with stiff broom or thoroughly washed prior to arrival at work site. If moving between work sites, the operator will not be expected to clean their equipment. If equipment leaves the Chequamegon-Nicolet National Forest and works elsewhere, we expect the equipment to be cleaned and we will inspect it before allowing work to resume at these project sites.
- If fire danger is High or above, Forest Service or State may temporarily suspend operations until fire danger declines.
- If rutting is occurring, Forest Service or State may temporarily suspend mechanical operations until ground conditions improve.
- If snow depth is determined to be too great by Forest Service or State representatives to successfully achieve desired results operations may be suspended at discretion of Forest Service or State.
- Work can be completed any time conditions allow for the operator to achieve desired objectives with the approval of a Forest Service or State Representative.
- If Federally threatened or endangered plants, dens, or nests of these species are found and occupied, work will cease immediately, and the Forest Service or the State biologist will be contacted to determine next steps.
- If any heritage resources are discovered or believed to be discovered, work will cease immediately, and the Forest Service archaeologist or State's equivalent will be contacted to determine next steps.

### **Workload Activities**

The CNNF will not prescribe what specific equipment be used. The State will have the discretion about what specific piece equipment is used if the desired outcome is achieved. However, possible activities may include:

- *Brush Mastication*: Cut all brush within the project area to the specifications negotiated at time of task order award.
- *Slash Mastication*: Masticate all Slash within the project area to the specifications negotiated at time of task order award.
- *Mastication by Task Order*: Includes specialized work not described in the above. Specifications will be provided for each task order.
- *Removal of Dead and Down Timber*: Removal of all dead and down woody material within the project area to specifications negotiated at time of task order.
- *Removal of Standing, Broken and Root Sprung Timber*: Removal of standing, broken and root sprung timber within the project area to specifications negotiated at time of task order.
- *Chipping or Mulching of Top Wood, Tip Wood, Branches, Slash and Woody Material Greater than a Specified Diameter*: Chipping, mulching or masticating of all woody material within the project area to specifications negotiated at time of task order.
- *Processing and Decking of Merchantable Timber*: Merchantable timber 5” DBH or greater to be processed, cut to 100” or other specified length and decked near roadside or other specified area separated by hardwood, conifer, and aspen species.
- *Off-site Removal of Non-Standing Woody Material Greater than a Specified Diameter*: Removal of all woody material to specifications negotiated at time of task order to a site of the contractors choosing off National Forest lands not provided by Forest Service personnel.
- *Incineration of Woody Material*: Incineration of woody materials of a specified diameter negotiated at time of task order within a fully enclosed self-contained incinerator.
- *Processing of Standing and Down Timber by Task Order*: Includes specialized work not described in the above. Specifications will be provided for each task order.

### **III. Point of Contacts:**

- Forest Service:
  - Scott Linn, 715-362-1300, [scott.linn@usda.gov](mailto:scott.linn@usda.gov)
  - Patrick Krage, 715-891-2358, [Patrick.krage@usda.gov](mailto:Patrick.krage@usda.gov)
- Wisconsin DNR:
  - Jeff Olsen, 715-331-9017, [Jeffrey.Olsen@wisconsin.gov](mailto:Jeffrey.Olsen@wisconsin.gov)
  - Richard Lietz, 715-850-2770, [Richard.lietz@wisconsin.gov](mailto:Richard.lietz@wisconsin.gov)

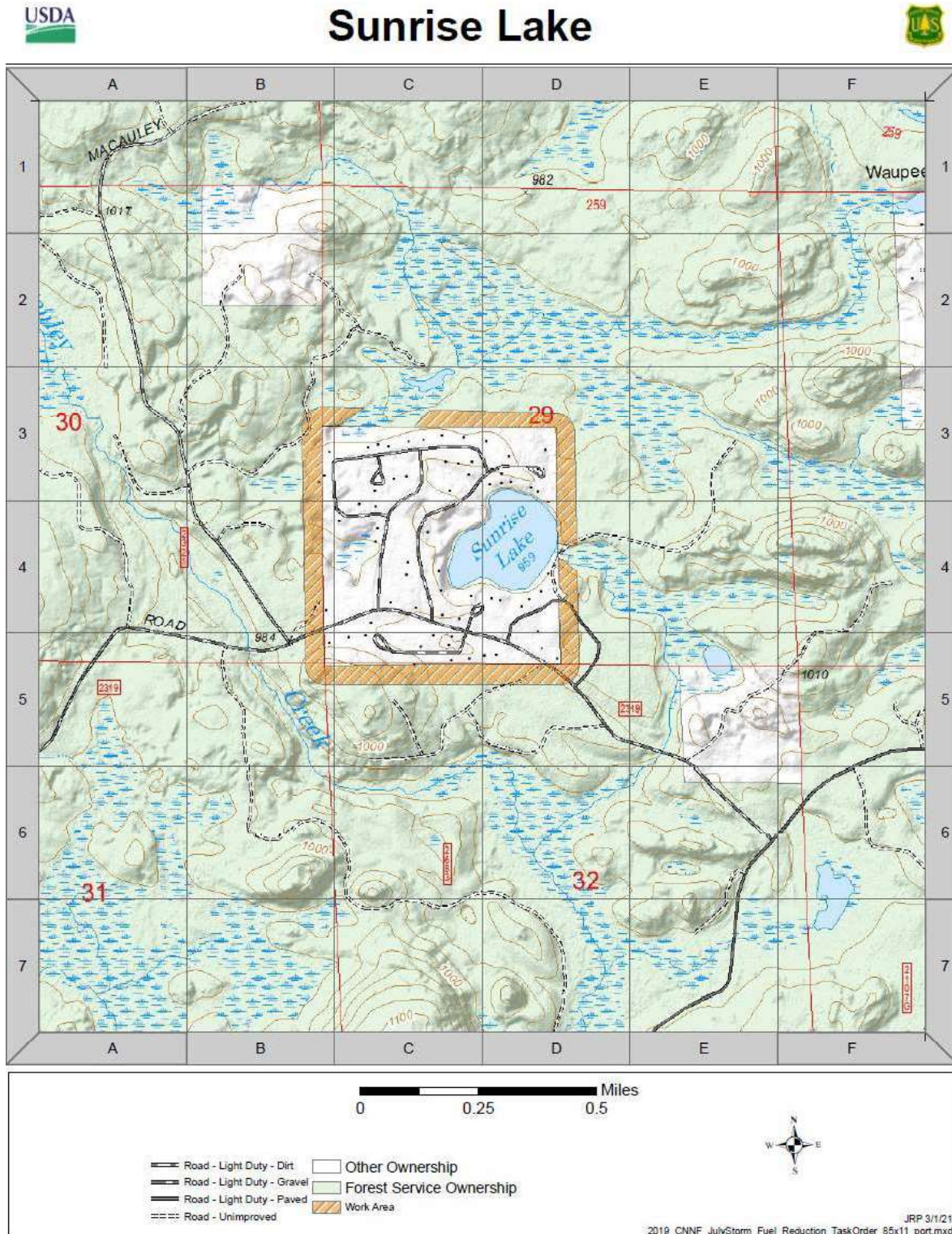
**IV. Maps/Diagrams:**

Unit boundaries will be designated on maps, aerial photos and/or in GPS shape files. On the ground boundary designation may be by obvious roads, timber lines, vegetation type changes and/or other features. Perimeters of the work areas may be identified on aerial photos, as well as referenced maps, included with Task Orders. It is the expectation of the Forest Service, State or the entities acting on behalf of the State or the State themselves will have the ability to use geo-referenced maps to stay within unit boundaries using Avenza or a similar type program. It is the implementor's responsibility to stay within unit boundaries. Where possible, the gross size of work units in each item has been determined via (GPS) Global Positioning Systems and/or Geographic Information Systems (GIS). Accessible reference points along the perimeter of work areas may be identified with boundary flagging, i.e., corners. The entire perimeters of inaccessible work areas may not be flagged. Where aerial photos or maps and the on-ground designation conflict, the on-ground designation shall govern unless otherwise directed by the Forest Service or State Representative.



**Figure 1: First priority work to get completed in Summer of 2021, Sunrise Lake Fuels Reduction**

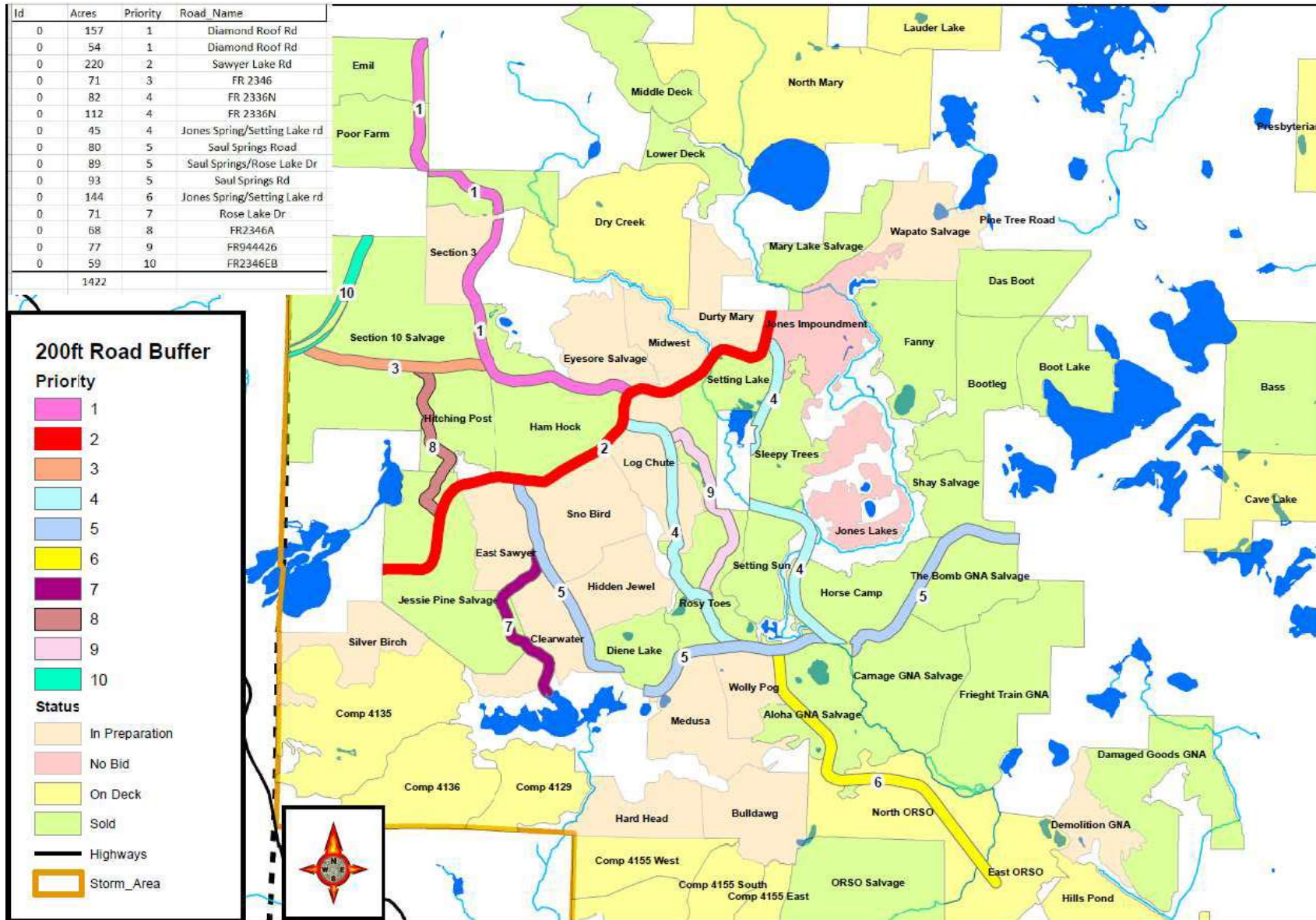
Project parameters unique to this area include, the State needs to create 200 feet no activity buffer extending from the private land line. Some of the area has been salvaged most has not been. This project area is 50 acres.



Estimated Start: June 2021  
 Estimated Completion: Dec. 2022



Figure 2: Second priority work to get completed after Sunrise Lake



Estimated Start: June 2021  
 Estimated Completion: Dec. 2022

## **Insect and Disease Survey**

### **Appendix A: Operating Plan**

**\*\*\*New Project\*\*\***

#### **I. Project Description:**

This project's main purpose is to collect watershed scale information that can better inform and produce more effective vegetation management on the Chequamegon-Nicolet National Forest (CNNF). Specifically, the WDNR will gather insect and disease data on the National Forest that will inform restoration efforts. All the activities will support prescription writing updates, inform revegetation needs, and allow the Forest to understand what additional restoration activities are needed.

#### **II. Forest Service Shall:**

1. Prepare and provide maps, shapefiles, work specifications, timing, and desired outcomes of projects to be accomplished.
2. Provide limited field support to support the project and ensure it meets the agreed upon specifications.

#### **III. State Shall:**

1. Facilitate collecting occurrence data (scope and scale) of the impacted area or high frequency areas.
2. Coordinate with the Forest Service personnel on project to be implemented via GNA to ensure full understanding of the project goals, objectives, and anticipated delivery outcome.
3. Be responsible for conducting quality control of work being implemented to ensure it meets descriptions and specifications agreed upon.
4. Provide timely and accurate reporting to the US Forest Service as detailed in the GNA Agreement or as requested by the Forest Service.

#### **IV. Goals:**

1. Provide data to update current vegetation prescriptions in the impacted area
2. Better understand the restoration needs in the impacted area
3. Better understand the revegetation needs in the impacted area
4. Maintain or enhance the productivity and health of the Forest

#### **V. Long Term Benefits:**

Forest diseases and insects are an increasing problem due to the introduction of Non-native species. Gypsy moth and oak wilt infestation is spreading in the north, and new pests such as the emerald ash borer are expected.

Early detecting insect and disease impacts on the CNNF are key components of minimizing the impact of serious forest insect pests and diseases impacts, like high tree mortality, reduced forest growth, and increasing wildfire probability. This detection will also allow the CNNF to minimize the financial burden insect and diseases restoration has on future forest management

## Good Neighbor Supplemental Project Agreement 1 – Modification 10

needs. Internally, this cooperative effort will provide a way to inform prescription writing updates, inform revegetation needs, and allow the Forest to understand what additional restoration activities are needed.

## **Insect and Disease Surveys**

### **Appendix C: Statement of Work**

**\*\*\*New Project\*\*\***

#### **I. Objectives:**

This project's main objective is to restore Chequamegon-Nicolet National Forest (CNNF) lands that have been impacted by insect and diseases (e.g. spruce budworm or oak wilt). In almost all cases, this is accomplished through early detection and swift management. Forest health assessment surveys assist with early detection and identify the extent of a particular outbreak if one were to occur. These surveys are critical to the detection of new insects or diseases within the boundaries of the CNNF (e.g. emerald ash borer or heterobasidion root disease), not previously known to be present. These surveys are primarily focused on the common, already established forest health issues on the forest, but not limited to just these issues.

There are needs for insect and disease surveys, specialized surveys, and surveys when FS State and Private are unable to complete workloads. These surveys would occur on an annual basis and when needs arise based on insect and disease outbreaks.

#### **General Proposal:**

- Conduct surveys across the CNNF to find insect and disease issues (or outbreaks) on a yearly basis, if needed.
- The state will determine the best method for performing these surveys.

#### **II. Tasks and Timeline:**

##### **Deliverables:**

- The State will supply location data for areas within the CNNF that have been negatively impacted by insects or diseases.
  - a. If possible, a Forest Service observer will aid the State in identifying hot spots or focused areas, where there are more potential for forest health concerns. If not possible, mutually agreed upon parameters will be established before survey is conducted.

<b>Time</b>	<b>Description</b>	<b>Cost Estimate</b>
~ June 2021	Start surveys on assigned 'hotspot' areas.	\$10,000 (whole Forest)
~ Sept. 2021	Complete surveys. Most insect and disease issues usually become more difficult to identify after this month.	-

**III. Point of Contacts:**

- Forest Service: Matt Bushman, Forest Silviculturist, 715-362-1300 x1319, [matthew.bushman@usda.gov](mailto:matthew.bushman@usda.gov)
- WI DNR: John Jorgenson (Aeronautics Team Leader), 608-219-3194, [JohnA.Jorgensen@wisconsin.gov](mailto:JohnA.Jorgensen@wisconsin.gov)

**IV. Maps/Diagrams/Shapefiles:**

- Additional information provided upon request



**Wetland Mapping**  
Utilizing the WDNR Wisconsin Wetland Inventory Map Production SOP

**Appendix A: Operating Plan**

**\*\*\*New Project\*\*\***

**I. Project Description:**

Wisconsin Department of Natural Resources (DNR) staff, utilizing DNR’s Integrated Wetland and Surface Waters Pilot Study: Progress Toward and Improved, Modernized GIS Data Production Model for the Wisconsin Wetland Inventory (WWI) and SOP, will map wetlands across the Chequamegon-Nicolet National Forest (CNNF) and classify them utilizing the National Wetland Inventory “Cowardin” classification system. In addition, stream courses will be digitized to better represent spatial location and extent of surface waters to the extent possible utilizing the remote sensing data.

Area to be mapped includes all lands within the CNNF’s proclamation boundary, including private inholdings. This equals 1,998,055 acres in total. There will be no mapping outside of the proclamation boundary.

**II. Forest Service Shall:**

1. Work cooperatively with the DNR to develop a multi-year work plan and frequently check in on progress or discuss challenges.
2. Provide field review of draft products for verification or confirmation in new fluvial landscapes or when questionable areas are encountered.

**III. State Shall:**

1. Map wetlands and streams on the CNNF in accordance with the latest WWI Map Production SOP.
2. Work cooperatively with the USFS to develop a multi-year work plan, frequently check in on progress and report challenges or delays to project deliverables.
3. Enable key DNR staff to meet with CNNF staff in the field for review and verification of newly mapped wetlands, with a focus on questionable areas (mineral soils, new fluvial landscapes, etc.).
4. Facilitate the training of DNR staff and continually ensure quality of data collected.
5. Ensure data collected will be preserved and in an electronic/GIS format so that project partners and the general public will have appropriate data access.
6. See that data is submitted to NWI review teams and once approved, would be uploaded to the Surface Water Data Viewer.

**IV. Goals:**

1. Provide improved mapping of wetlands and streams on the CNNF; thus, improving natural resource management and impact analysis.

**VII. Long Term Benefits:**

Improved mapping of wetlands and streams will enable CNNF resource managers to better protect water quality and the aquatic ecosystem. Increasingly, the Forest's timber and recreation management planning processes rely on GIS data. Accurate mapping of these aquatic features is essential to ensure these areas are adequately protected.

**Wetland Mapping**  
Utilizing the WDNR Wisconsin Wetland Inventory Map Production SOP

**Appendix C: Statement of Work**

**\*\*\*New Project\*\*\***

Additional background on the project: For several years DNR have been planning and piloting this new wetland mapping protocol across the state utilizing EPA grant funding (see 2020 DNR publications for more information). For 9 months, CNNF watershed and soils staff have been collaborating with DNR staff to pilot this mapping methodology in three USFS managed watersheds on the Lakewood Laona Ranger District. CNNF staff field verified the accuracy and usefulness of this mapping to provide a forest wide wetland and stream layer update. The pilot project caused a 16% increase in mapped wetlands and surface waters verse the existing Wisconsin Wetland Inventory, equaling 2,121 ac (3.3 square miles) of previously unmapped wetland to the GIS inventory. In addition, stream networks were mapped much more accurately than the existing Wisconsin 24K Hydro or National Hydrography Dataset flowlines. Also, the spatial accuracy of previously inventoried wetland boundaries was improved remarkably.

Better wetland data will allow the Forest Service to manage the forest and its resources more efficiently. For example, this data will reduce unnecessary wetland impacts and reduce mis-managing areas of the forest that are only supposed to be managed a certain way by Law.

**I. Objectives:**

1. Finalize the extent of mapping effort, methods, and the watersheds that will be mapped.
2. Map wetlands and streams in accordance with the latest WWI Map Production SOP at the rate of approximately 20 wetlands per year.
3. Complete project within five years.

**II. Tasks and Timeline:**

<b>Timeline</b>	<b>Task Description</b>	<b>Cost Estimate</b>
2021	Finalize extent, methods, deliverables, QAQC and field verification plan, and develop 5-year work plan.	-
	Map at least 20 HUC 12 watersheds	\$105,000
2022	Map at least 20 HUC 12 watersheds	\$105,000
2023	Map at least 20 HUC 12 watersheds	\$105,000
2025	Map at least 20 HUC 12 watersheds	\$105,000
<b>Total:</b>		<b>\$425,000</b>

Estimated Start: June 2021

Estimated Completion: August 2025 (end of Agreement date)

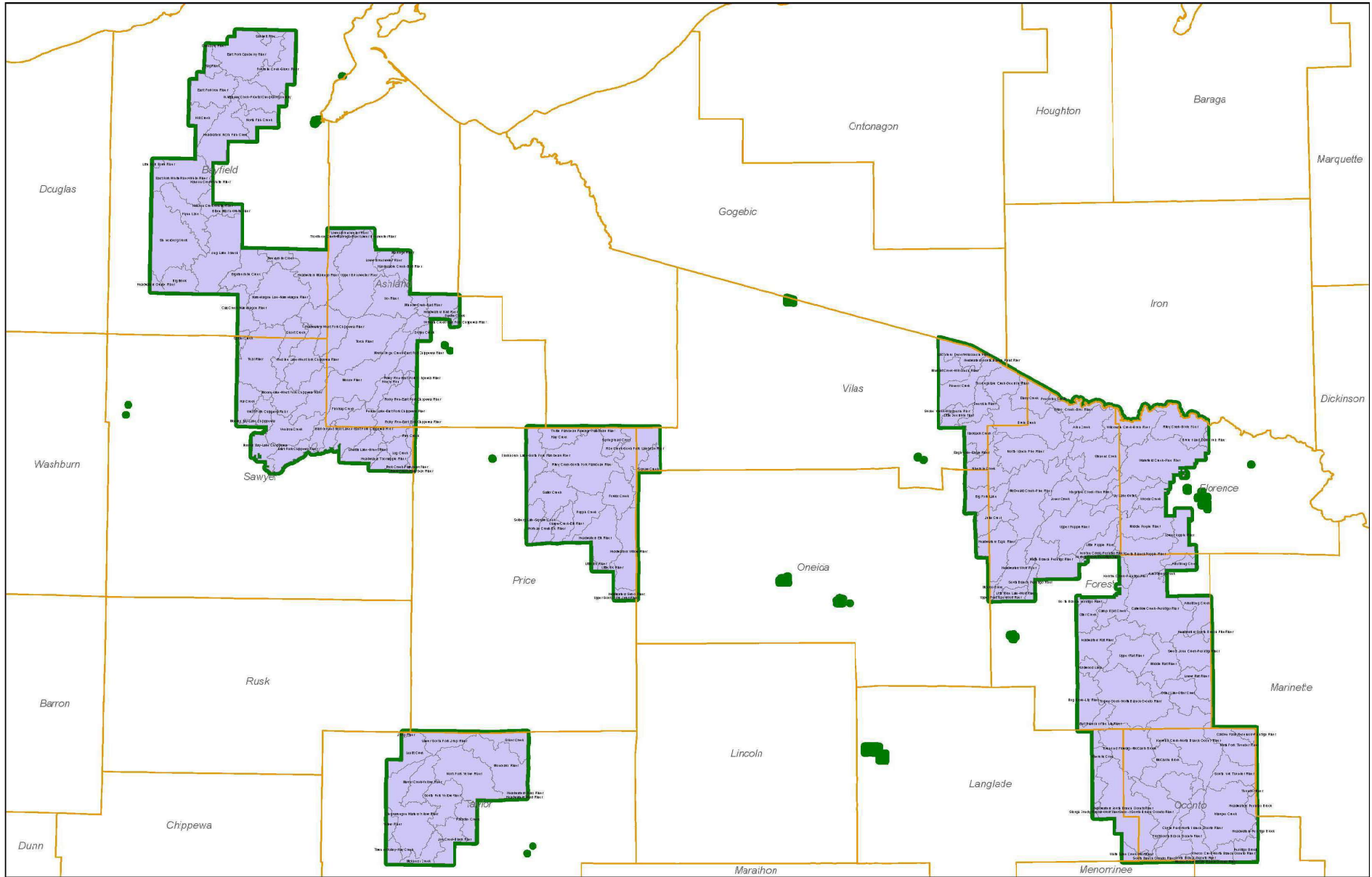
**III. Point of Contacts:**

- Forest Service: Chris Ester 715-362-1304, [Christopher.Ester@usda.gov](mailto:Christopher.Ester@usda.gov)
- Wisconsin DNR: Sally Jarosz (608) 225-2918, [Sarah.jarosz@wisconsin.gov](mailto:Sarah.jarosz@wisconsin.gov)
- Wisconsin DNR (wetland mapper): Christopher Noll (608) 220-4759, [Christopher.Noll@wisconsin.gov](mailto:Christopher.Noll@wisconsin.gov)
- Wisconsin DNR (program supervisor): Amanda Minks (608) 220-0368, [Amanda.Minks@wisconsin.gov](mailto:Amanda.Minks@wisconsin.gov)

**IV. Maps/attachments:**

- Next page shows a map of watersheds to be mapped across the entire project timeline.
- [DNR publication](#) outlining the mapping method that will be utilized in this project (June 2020 document).
- [DNR report](#) to EPA outlining project goals and deliverables so far under the current grant (December 2020 document).
- [Map](#) of the extent of new wetlands in the three pilot watersheds on the CNNF, summer of 2020.

Good Neighbor Supplemental Project Agreement 1 – Modification 10



Estimated Start: June 2021  
Estimated Completion: Dec. 2026

## **Wildlife Opening and Trail Maintenance**

### **Appendix A: Operating Plan**

#### **\*\*\*New Project\*\*\***

#### **I. Project Description:**

The purpose of this project is to manage and restore level one roads, trails, and wildlife openings on the Chequamegon-Nicolet National Forest (CNNF). The results of the activity will be promoting/maintaining an open vegetative condition used by wildlife on established forest opening across the CNNF, advancing Forest Plan priorities and the Forest Service mission.

#### **II. Forest Service Shall:**

1. Provide support and guidance on decisions regarding work to be accomplished. This includes preparing and providing maps, shapefiles, technical and mechanical work specifications, timing, and desired outcomes of projects to be accomplished.
2. Provide limited field support to support the project and ensure it meets the agreed upon specifications.

#### **III. State Shall:**

1. Manage and restore wildlife openings and trails agreed to in attached Statement of Works or Appendix C attachments.
2. Coordinate with Forest Service local personnel on project details to be implemented via GNA on their Districts, ensuring a full understanding of the project's local goals, objectives, and anticipated delivery outcomes.
3. Be responsible for conducting quality control of work being implemented to ensure it meets descriptions and specifications of the project outlined in the Statement of Work.

#### **IV. Goals:**

- Prolong life of infrastructure (dikes, roads, trails) by performing needed maintenance, construction, and reconstruction
- Increase accomplishment of habitat improvement for wildlife, including young forest species
- Improve recreational experiences on motorized and non-motorized trails through improved maintenance.
- Sustain public access to NF lands.
- Sustain management of a globally imperiled ecosystem (Moquah Barrens) that contributes to WDNR NW Sands Initiative.
- Sustain management for two of the last nine managed sharp-tailed grouse populations in Wisconsin.

#### **VII. Long Term Benefits:**

The Chequamegon-Nicolet National Forest should move closer to achieving the Forest Plan ecological goals, standards, and guidelines within wildlife and recreation resources. One of these goals include, increasing the health and sustainability of the ecosystems within the National Forest (Forest Plan Goal 1).

**Wildlife Opening and Trail Maintenance**

**Appendix C: Statement of Work**

**\*\*\*New Project\*\*\***

The purpose of this project is to manage and restore level one roads, trails, and wildlife openings on the Chequamegon-Nicolet National Forest (CNNF). The results of the activity will be promoting/maintaining an open vegetative condition used by wildlife on established forest opening across the CNNF, advancing Forest Plan priorities and the Forest Service mission.

**I. Objectives:**

Perform level one road, trail, and wildlife opening maintenance on the CNNF. The results of the activity will be promoting/maintaining an open vegetative condition used by wildlife on established forest opening across the CNNF, in addition to providing efficient road systems for use and management. This will be accomplished through vegetation control, brushing and grading, access management, and minor surface improvements.

**II. Tasks and Timeline:**

The tasks and general timeline for this project are as follows:

<b>Timeline*</b>	<b>Task Description*</b>	<b>Cost Estimate</b>
Spring/Summer 2021	Forest Service provides information on projects to be conducted over the next two years to the State	\$50,000
	State develops bid specs for projects to be completed in calendar year 2021	
Field Season 2021	Maintenance is completed on identified sites for calendar year 2021	\$150,000
	State conducts QA/QC and reports back to Forest Service	
	Project management	
*More details concerning the timeline and task can be found below (under the Additional Detail heading).		

**ADDITIONAL DETAIL**

**Timeline**

The first bid packages are expected to go out by summer or early fall of 2021. Groundwork may be weather dependent, and certain projects may have specific start and end dates, as determined by the USFS. For example, on the Washburn Ranger District, work should not start before August 1 and should be completed by April 1 of the following year to prevent the spread of Oak Wilt, should oaks be damaged in the process of work implementation. Further, some locations on Great Divide, Eagle River/Florence and Lakewood-Laona will need a walk through prior to daily work to ensure no wood turtles are in the work area or work can occur after Oct. 15th each year on these locations to avoid harm to any wood turtles that maybe in the area.



### **Technical Requirements**

The State shall facilitate all equipment, labor, materials, transportation, supervision, and incidentals necessary to conduct the roads, trails, and wildlife opening maintenance. Mechanical equipment used should be approved by the Forest Service, with input from the Forest Service Point of Contact below, and may include an ASV machine, skid-steer with cutting or masticating head, farm (wheeled) tractor with mower or other cutting attachment, chainsaws and brush saws, or excavator/brush mower. Equipment used must be clean of vegetation and soil prior to arrival on CNNF to prevent the spread of Non-native invasive that could come from previous off forest site of work. The implementor is responsible for a quality control plan, operations plan, and hazmat control/clean-up plan approved by State and the CNNF.

### **Maintenance Specifications**

All woody vegetation (not marked or flagged for reserve) within the flagged boundaries of the wildlife openings should be cut level and flush with the ground. Brush cuttings under 3 inches diameter may be left where it falls or scattered within the opening or in the adjacent forest. Larger diameter brush (greater than 3-inch diameter at stump) will be scattered in the adjacent forest or placed in piles that are no more than six feet in diameter at the base and no more than six feet tall on the edge of the opening or hunter walking trail. These piles must be placed no less than 10 feet from the opening edge boundary or other piles and trees that are to be retained.

Certain trees within the opening will be retained for their wildlife value, these include mast, cavity, nesting, roosting, denning, and thermal cover trees. Trees that are to be retained are flagged with pink flagging and shall be avoided.

Trails and wildlife opening access roads will be maintained to the width of the underlying roadbed, generally 16 feet wide plus any marked widenings along the trail. The road or trail will be kept free of debris and any stumps from mowed brush will be cut level with the ground. Trees that have fallen across the road or trail will be removed and the debris may be discarded into the adjacent forest in a manner that does not interfere with wetlands or streams. Branches that overhang the trail at 8 foot of high or less will be trimmed back to the road shoulder. Trimming of any oak shall not occur until after August 1 of that given year to prevent spread of oak wilt unless approved by the State in consultation with Forest Service inspector.

In most instances forest openings will be marked with pink flagging tape by CNNF. Trails and roads for access to the openings may also be marked by CNNF. Boundary trees are marked with pink flagging. Boundary trees shall not be cut. All equipment must be operated within the marked boundary. Reserve trees and reserve islands will also be marked with pink flagging for avoidance. Reserve trees shall not be cut, and reserve islands shall not be entered with equipment. Care must be taken to prevent damage to residual standing trees when operating along the designated opening boundary or adjacent to marked reserve trees and reserve islands. Damage to adjacent forest shall be maintained to a minimum necessary to maintain the trail and opening.

Each opening will receive one mowing during the work period unless specified for more in the one of the attachments that contain a description of work to be done at that opening site. Mowing shall be accomplished by mechanically mowing the grass/forb vegetation not higher than 6 inches to stem tip in the opening. Because these sites can contain undulating topography,

## Good Neighbor Supplement Project Agreement 1 – Modification 10

this mowed height shall be the majority height over 80% to the area mowed. Some sites will have areas reserved to maintain important forb habitat that would not meet the 80% objective and is acceptable. These sites for mowing avoidance will be flagged with pink ribbon around the boundary and should be avoided.

If a berm blocks access to the contracted openings, the State will remove the berm upon commencement of mowing services and replace it upon completion. Berm material can be used to fill the trench for equipment access. Upon completion of the work, the implementor shall replace the berm following the berm specification provided unless the site has been designated to receive a gate (see berm specification).

### **Monitoring**

The State is responsible for monitoring the work.

### **III. Point of Contacts:**

- Forest Service:
  - Main Contact: **Dan Eklund, 715-762-5194; [Daniel.Eklund@usda.gov](mailto:Daniel.Eklund@usda.gov)**
  - Local Contacts:
    - Medford-Park Falls: Ken Pemble 715-762-5117 or Ann Dassow 715-748-4875 ext. 7484824
    - Great Divide: Carrie Nelson 715-634-4821 ext. 2339
    - Washburn: Brian Heeringa 715-373-2667 ext. 5234
    - Eagle River-Florence: Scott Anderson 715-479-2827
    - Lakewood-Laona: Todd Trapp at 715674-4481
- Wisconsin DNR: **Bryan Patek, 608-658-0064; [Bryan.Patek@wisconsin.gov](mailto:Bryan.Patek@wisconsin.gov)**

### **IV. Maps/Diagrams:**

Known information is attached to this Statement of Work. Additional data will be supplied as needed and upon request. For example, maps will be provided to show where the project areas are located on the ground and will include a latitude and longitude location and/or County, Township, Range, section information.

Attachment: Exhibit B

USFS Agreement No.: 15-GN-11091300-109  
 Cooperator Agreement No.:

Mod. No.: Year 6

**Financial Plan Matrix:** Note: All columns may not be used. Use depends on source and type of contribution(s).

COST ELEMENTS	FS CONTRIBUTIONS		STATE CONTRIBUTIONS + PI		(e) Total
	(a6) Noncash	(b) Cash to State	(c) Noncash	(d6) PI (from FS tbr) Project Costs	
Direct Costs					
Salaries/Labor	\$79,675.00	\$0.00	\$0.00	\$41,120.00	\$120,795.00
Travel	\$0.00	\$0.00	\$0.00	\$5,000.00	\$5,000.00
Other	\$12,405.50	\$0.00	\$0.00	\$283,350.00	\$295,755.50
Supplies/Materials	\$0.00	\$0.00	\$0.00	\$1,200.00	\$1,200.00
Contracting	\$0.00	\$0.00	\$0.00	\$225,200.00	\$225,200.00
Subtotal	\$92,080.50	\$0.00	\$0.00	\$555,870.00	\$647,950.50
Coop Indirect Costs		\$0.00	\$0.00	\$0.00	\$0.00
FS Overhead Costs	\$11,049.66				\$11,049.66
Total	\$103,130.16	\$0.00	\$0.00	\$555,870.00	
<b>Total Project Value:</b>					\$659,000.16

	Estimated	Actual
<span style="border: 1px solid black; padding: 2px;">Program Income Earned</span>	\$2,000,000.00	\$0.00
<span style="border: 1px solid black; padding: 2px;">Program Income Balance</span>	\$801,428.75	-\$642,701.25

**Program Income Project Cost Analysis, Column Yr6 (d6)**

<b>Program Income Carry over</b>		<b>-\$642,701.25</b>
<b>Program Income</b>	<b>Estimates</b>	<b>Actuals</b>
Timber Value Received	\$2,000,000.00	\$0.00
NFF Payment	\$0.00	\$0.00
KV Fund Payments	\$0.00	\$0.00
Local Road Aid Payments	\$0.00	\$0.00
SUBTOTAL	\$0.00	\$0.00
<b>Program Income Earned</b>	<b>\$2,000,000.00</b>	<b>\$0.00</b>

<b>GNA Timber Expenses</b>		
Salaries (FTE & LTE)	\$0.00	
Fringe (FTE & LTE)	\$0.00	
<b>Total DNR Salaries/Labor</b>	<b>\$0.00</b>	
<b>DNR Travel</b>	<b>\$0.00</b>	
<b>DNR Supplies &amp; Services</b>	<b>\$0.00</b>	
<b>Contracting Expenses</b>	<b>\$0.00</b>	
<b>Other</b>	<b>\$0.00</b>	

<b>TOTAL COST</b>	<b>\$0.00</b>	<b>\$0.00</b>
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<b>Program Income Projects</b>		
Salaries (FTE & LTE)	\$0.00	
Fringe (FTE & LTE)	\$0.00	
<b>Total DNR Salaries/Labor</b>	<b>\$41,120.00</b>	
<b>DNR Travel</b>	<b>\$5,000.00</b>	
<b>DNR Supplies &amp; Services</b>	<b>\$1,200.00</b>	
<b>Contracting Expenses</b>	<b>\$225,200.00</b>	
<b>Other</b>	<b>\$283,350.00</b>	

<b>TOTAL COST</b>	<b>\$555,870.00</b>	<b>\$0.00</b>
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<b>Program Income Balance</b>	<b>\$801,428.75</b>	<b>-\$642,701.25</b>
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## WORKSHEET FOR

### FS Non-Cash Contribution Cost Analysis, Column (a6)

Use this worksheet to perform the cost analysis that supports the lump sum figures provided in the matrix. NOTE: This worksheet auto populates the relevant and applicable matrix cells.

Cost element sections may be deleted or lines may be hidden, if not applicable. Line items may be added or deleted as needed. The Standard Calculation sections provide a standardized formula for determining a line item's cost, e.g.  $\text{cost/day} \times \# \text{ of days} = \text{total}$ , where the total is calculated automatically. The Non-Standard Calculation sections provide a write-in area for line items that require a calculation formula that is other than the standardized formulas, e.g. instead of salaries being calculated by  $\text{cost/day} \times \# \text{ of days}$ , costs may be calculated simply by a contracted value that is not dependent on days worked, such as  $1 \text{ employee} \times \$1,200/\text{contract} = \$1,200$ . Be sure to review your calculations when entering in a Non-Standard Calculation, and provide a brief explanation of units used to make calculation, e.g. '1 month contract,' on a line below the figures.

#### Salaries/Labor

##### Standard Calculation

Job Description	Cost/Day	# of Days	Total
Forest Silviculturist (Overhead/Accomplishr	\$416.00	5.00	\$2,080.00
District Silviculturist (Rx Review)	\$335.00	35.00	\$11,725.00
District TMA (Contract Review/Outyear Pla	\$335.00	25.00	\$8,375.00
Program Database Inputs (Accomplishmen	\$280.00	35.00	\$9,800.00
Appraisal/Billing/Harvest Reporting	\$280.00	15.00	\$4,200.00
Quality Control/Monitoring	\$1,600.00	3.00	\$4,800.00
Quality Control Walkthroughs	\$280.00	5.00	\$1,400.00
Program Management Resource work	\$416.00	30.00	\$12,480.00
Program Management Agreements	\$375.00	20.00	\$7,500.00
Data/File Sharing and Preparation	\$280.00	8.00	\$2,240.00
Implementation Resource Review/Outyear	\$335.00	35.00	\$11,725.00
Assessment/Identification of Project Area	\$335.00	10.00	\$3,350.00
	\$0.00		\$0.00

##### Non-Standard Calculation

**Total Salaries/Labor**

**\$79,675.00**

#### Travel

##### Standard Calculation

Travel Expense	Employees	Cost/Trip	# of Trips	Total
				\$0.00

##### Non-Standard Calculation

**Total Travel**

**\$0.00**

Equipment				
Standard Calculation				
Piece of Equipment	# of Units	Cost/Day	# of Days	Total
Fleet	5.00	\$28.85	86.00	\$12,405.50
Non-Standard Calculation				
Total Equipment				\$12,405.50

Supplies/Materials				
Standard Calculation				
Supplies/Materials	# of Items	Cost/Item	Total	
			\$0.00	
Non-Standard Calculation				
Total Supplies/Materials				\$0.00

Other				
Standard Calculation				
Item	# of Units	Cost/Unit	Total	
			\$0.00	
Non-Standard Calculation				
Total Printing				\$0.00

Contracting				
Standard Calculation				
Item	# of Units	Cost/Unit	Total	
			\$0.00	
Non-Standard Calculation				
Total Other				\$0.00

<b>Subtotal Direct Costs</b>		<b>\$92,080.50</b>
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**Forest Service Overhead Costs**

Current Overhead Rate	Subtotal Direct Costs	Total
12.00%	\$92,080.50	\$11,049.66
<b>Total FS Overhead Costs</b>		<b>\$11,049.66</b>

<b>TOTAL COST</b>	<b>\$103,130.16</b>
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Attachment: Exhibit B

USFS Agreement No.: 15-GN-11091300-109  
 Cooperator Agreement No.:

Mod. No.: Year 7

**Financial Plan Matrix:** Note: All columns may not be used. Use depends on source and type of contribution(s).

COST ELEMENTS	FS CONTRIBUTIONS		STATE CONTRIBUTIONS + PI		(e) Total
	(a7) Noncash	(b) Cash to State	(c) Noncash	(d7) PI (from FS tbr) Project Costs	
Direct Costs					
Salaries/Labor	\$79,675.00	\$0.00	\$0.00	\$19,900.00	\$99,575.00
Travel	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Other	\$12,405.50	\$0.00	\$0.00	\$200.00	\$12,605.50
Supplies/Materials	\$0.00	\$0.00	\$0.00	\$540,000.00	\$540,000.00
Contracting	\$0.00	\$0.00	\$0.00	\$854,000.00	\$854,000.00
Subtotal	\$92,080.50	\$0.00	\$0.00	\$1,414,100.00	\$1,506,180.50
Coop Indirect Costs		\$0.00	\$0.00	\$0.00	\$0.00
FS Overhead Costs	\$11,049.66				\$11,049.66
Total	\$103,130.16	\$0.00	\$0.00	\$1,414,100.00	
<b>Total Project Value:</b>					\$1,517,230.16

**Program Income Project Cost Analysis, Column Yr7 (d7)**

Program Income Carry over		-\$642,701.25
Program Income	Estimates	Actuals
Timber Value Received	\$2,000,000.00	\$0.00
NFF Payment	\$0.00	\$0.00
KV Fund Payments	\$0.00	\$0.00
Local Road Aid Payments	\$0.00	\$0.00
SUBTOTAL	\$0.00	\$0.00
<b>Proram Income Earned</b>	<b>\$2,000,000.00</b>	<b>\$0.00</b>

GNA Timber Expenses		
Salaries (FTE & LTE)	\$0.00	
Fringe (FTE & LTE)	\$0.00	
<b>Total DNR Salaries/Labor</b>	<b>\$0.00</b>	
DNR Travel	\$0.00	
DNR Supplies & Services	\$0.00	
Contracting Expenses	\$0.00	
Other	\$0.00	

<b>TOTAL COST</b>	<b>\$0.00</b>	<b>\$0.00</b>
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Program Income Projects		
Salaries (FTE & LTE)	\$0.00	
Fringe (FTE & LTE)	\$0.00	
<b>Total DNR Salaries/Labor</b>	<b>\$19,900.00</b>	
DNR Travel	\$0.00	
DNR Supplies & Services	\$200.00	
Contracting Expenses	\$540,000.00	
Other	\$854,000.00	

<b>TOTAL COST</b>	<b>\$1,414,100.00</b>	<b>\$0.00</b>
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<b>Program Income Balance</b>	<b>-\$56,801.25</b>	<b>-\$642,701.25</b>
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## WORKSHEET FOR

### FS Non-Cash Contribution Cost Analysis, Column (a7)

Use this worksheet to perform the cost analysis that supports the lump sum figures provided in the matrix. NOTE: This worksheet auto populates the relevant and applicable matrix cells.

Cost element sections may be deleted or lines may be hidden, if not applicable. Line items may be added or deleted as needed. The Standard Calculation sections provide a standardized formula for determining a line item's cost, e.g. cost/day x # of days=total, where the total is calculated automatically. The Non-Standard Calculation sections provide a write-in area for line items that require a calculation formula that is other than the standardized formulas, e.g. instead of salaries being calculated by cost/day x # of days, costs may be calculated simply by a contracted value that is not dependent on days worked, such as 1 employee x \$1,200/contract= \$1,200. Be sure to review your calculations when entering in a Non-Standard Calculation, and provide a brief explanation of units used to make calculation, e.g. '1 month contract,' on a line below the figures.

Salaries/Labor				
Standard Calculation				
Job Description		Cost/Day	# of Days	Total
Forest Silviculturist (Overhead/Accomplishr		\$416.00	5.00	\$2,080.00
District Silviculturist (Rx Review)		\$335.00	35.00	\$11,725.00
District TMA (Contract Review/Outyear Pla		\$335.00	25.00	\$8,375.00
Program Database Inputs (Accomplishmen		\$280.00	35.00	\$9,800.00
Appraisal/Billing/Harvest Reporting		\$280.00	15.00	\$4,200.00
Quality Control/Monitoring		\$1,600.00	3.00	\$4,800.00
Quality Control Walkthroughs		\$280.00	5.00	\$1,400.00
Program Management Resource work		\$416.00	30.00	\$12,480.00
Program Management Agreements		\$375.00	20.00	\$7,500.00
Data/File Sharing and Preparation		\$280.00	8.00	\$2,240.00
Implementation Resource Review/Outyear		\$335.00	35.00	\$11,725.00
Assessment/Identification of Project Area		\$335.00	10.00	\$3,350.00
<b>Total Salaries/Labor</b>				<b>\$79,675.00</b>

Travel				
Standard Calculation				
Travel Expense	Employees	Cost/Trip	# of Trips	Total
				\$0.00
				\$0.00

Non-Standard Calculation
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<b>Total Travel</b>	<b>\$0.00</b>
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Equipment				
Standard Calculation				
Piece of Equipment	# of Units	Cost/Day	# of Days	Total
Fleet	5.00	\$28.85	86.00	\$12,405.50
Non-Standard Calculation				

<b>Total Equipment</b>	<b>\$12,405.50</b>
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<b>Supplies/Materials</b>			
<b>Standard Calculation</b>			
Supplies/Materials		# of Items	Cost/Item
			\$0.00

**Non-Standard Calculation**

**Total Supplies/Materials** **\$0.00**

<b>Other</b>			
<b>Standard Calculation</b>			
Item		# of Units	Cost/Unit
			\$0.00

**Non-Standard Calculation**

**Total Printing** **\$0.00**

<b>Contracting</b>			
<b>Standard Calculation</b>			
Item		# of Units	Cost/Unit
			\$0.00

**Non-Standard Calculation**

**Total Other** **\$0.00**

<b>Subtotal Direct Costs</b>	<b>\$92,080.50</b>
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**Forest Service Overhead Costs**

Current Overhead Rate	Subtotal Direct Costs		Total
12.00%	\$92,080.50		\$11,049.66
<b>Total FS Overhead Costs</b>			<b>\$11,049.66</b>

<b>TOTAL COST</b>	<b>\$103,130.16</b>
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