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Sawtooth National Forest Land and Resource Management Plan

Biennial Monitoring and Evaluation Report 2018-2019



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Sawtooth National Forest

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1. INTRODUCTION

The 2012 USDA Forest Service Planning Rule ensures that collaborative and science-based plans are developed to provide for ecosystem sustainability, species diversity and conservation, watershed protection, and benefits to public users and communities. The planning rule's three-part adaptive management framework consists of assessments; developing, amending, or revising a plan; and monitoring.

Monitoring provides feedback for the Forest planning cycle by testing assumptions, tracking relevant conditions over time, measuring management effectiveness, and evaluating effects of management practices. Monitoring information should enable the Forest to determine if a change in plan components or other plan management guidance may be needed, forming a basis for continual improvement and adaptive management. Direction for monitoring and evaluating forest plans is found under the 2012 Planning Rule at 36 CFR 219.12 and in the directives in Forest Service Handbook (FSH) 1909.12, Chapter 30.

The monitoring program for the Forest Plan must contain one or more monitoring questions and associated indicators addressing each of the following:

1. The status of select watershed conditions
2. The status of select ecological conditions, including key characteristics of terrestrial and aquatic ecosystems
3. The status of focal species to assess the ecological conditions required under §219.9
4. The status of a select set of the ecological conditions required under § 219.9 to contribute to the recovery of federally listed threatened and endangered species, conservation of proposed and candidate species, and maintenance of a viable population of each species of conservation concern
5. The status of visitor use, visitor satisfaction, and progress toward meeting recreation objectives
6. Measurable changes of the plan area related to climate change and other stressors which may be affecting the plan area
7. Progress toward meeting the desired conditions and objectives in the plan, including providing for multiple use opportunities
8. The effects of each management system to determine it does not substantially and permanently impair the productivity of the land

The Sawtooth National Forest has been operating under the 2003 Land and Resource Management Plan (Forest Plan), with several amendments. To comply with the 2012 Planning Rule, modifications to plan monitoring requirements were developed in 2016 to assess key ecological conditions and public benefits. The Sawtooth National Forest's monitoring and evaluation strategy was published in June 2016 and was incorporated into Chapter IV of the Forest Plan. It can be found at

https://www.fs.usda.gov/Internet/FSE_DOCUMENTS/fseprd539048.pdf.

This report generally represents monitoring information for 2018-2019, but covers more years, depending on availability of data for each indicator. The next report will be published in the spring of 2022 and will cover monitoring in fiscal years 2020 and 2021.

2. INFORMATION ON MONITORING QUESTIONS AND INDICATORS

In Chapter IV of the Forest Plan, tables IV-1 through IV-4 identify the questions and indicators that will be monitored to determine the success of the Forest Plan management strategy in progressing toward desired conditions. Information pertaining to some of the indicators requires multiple years of collection before any meaningful evaluation of an element and its related question can be made. Therefore, not all monitoring questions and their related indicators will be addressed in this report.

2.1 Physical and Biological Ecosystem

2.1.1 TERRESTRIAL ECOSYSTEMS AND VEGETATION

Monitoring Question: *Are planned treatments being implemented within Wildlife Conservation Strategy (WCS) and Vegetation Restoration Strategy priority watersheds to meet desired outcomes?*

Indicator: *Proportion of acres treated in WCS priority watersheds compared to total acres treated on the Forest annually*

This monitoring question and indicator is currently undergoing an administrative change to better align the monitoring question with the indicator.

2.1.2 WILDLIFE SPECIES OF CONSERVATION CONCERN

Monitoring Question: *Have habitat restoration and conservation been prioritized in watersheds identified in the Forest Plan WCS and priority Sage-Grouse habitat watersheds?*

Indicator: *Acres of restoration treatments in high priority WCS versus other 5th field watersheds*

This monitoring question and indicator is currently undergoing an administrative change.

Monitoring Question: *Are restoration and conservation actions being implemented within Sage-Grouse Priority Habitat Management Area (PHMA), Important Habitat Management Area (IHMA), and General Habitat Management Area (GHMA) to meet desired outcomes?*

Indicator: *Number of acres restored in PHMA, IHMA, and GHMA habitat*

This monitoring question and indicator is currently undergoing administrative change.

Monitoring Question: *Are the distribution, abundance, and habitat quality of threatened, endangered, proposed, and candidate (TEPC) terrestrial species being maintained and/or restored?*

Indicator: *Population trend data for select focal species in potential habitat*

This monitoring question and indicator is currently undergoing administrative change.

2.1.3 FIRE

Monitoring Question: *In Wildlife Conservation Strategy (WCS) priority watersheds, is wildland fire and/or management ignited fire moving landscapes towards desired conditions for resiliency and fire condition class?*

Indicator: *Wildland fire and or management ignited fire acres burned in WCS priority watersheds contributing to desired conditions*

There were no wildland fire acres or management ignited fire acres burned in WCS priority watersheds. Therefore, fire was not a factor in moving WCS landscapes toward desired conditions for resiliency and fire condition class.

Monitoring Question: *Are high wildfire risk areas being identified within the wildland urban interface (WUI) and are those acres being subsequently treated to reduce that risk?*

Indicator: *Acres of high wildfire risk within WUI treated in a manner that reduces risk*

High wildfire risk areas were identified within the WUI and 17,325 acres were treated to reduce that risk (Table 1). That is a 75% increase from the 2016-17 treatment total of 9,920 acres.

Table 1. Wildland Urban Interface Acres Treated in 2018 and 2019

WUI Treatment	Acres Treated in 2018	Acres Treated in 2019	Total Acres Treated
Wildfire	266	0	266
Rearrangement of Fuels	430	3,158	3,588
Thinning	2,525	3,957	6,482
Pile Burning	539	187	726
Piling	680	347	1,027
Low Intensity Under burn	550	1,080	1,630
Broadcast Burning	1,439	58	1,497
Compacting/Crushing of Fuels	0	600	600
Patch Clearcut/Control Understory Vegetation	0	58	58
Tree Release and weed	0	117	117
Fuel Break	50	0	50
Salvage/Single Tree Cut	130	0	130
Re-vegetation treatments	0	524	524
Yarding	0	630	630
TOTAL	6,609	10,716	17,325

2.1.4 AQUATIC ECOSYSTEMS

Monitoring Question: *Are planned treatments being implemented within ACS priority watersheds to meet desired outcomes-desired conditions?*

Indicator #1: *Miles of stream habitat improved*

Indicator #2: *Acres treated annually in wetlands, floodplains and RCA's within ACS priority watersheds*

This monitoring question and indicators are currently undergoing administrative change.

2.2 Productivity of the Land

Monitoring Question: *Is the Forest maintaining or restoring long-term soil productivity?*

Indicator #1: *Amount of activity area in non-detrimentally disturbed condition (annual review of selected projects)*

Indicator #2: *Amount of activity area Total Soil Resource Commitment (TSRC) (annual review of selected projects)*

Yes, by adhering to Forest Plan standards SWST02 and SWST03, the Forest is maintaining/restoring long-term soil productivity. For each individual project undertaken soil detrimental disturbance (DD) and TSRC are calculated to ensure compliance with the Forest Plan. The assumption is that if each project maintains compliance with SWST02 and SWST03 then the productivity of the soil is maintained.

There were 20 Decision Notices signed for projects in 2018 and 2019, 12 for 2018 and 8 for 2019 (Table 2). A random sample of these completed projects were reviewed for compliance with Forest Plan standards on soil productivity (SWST02, SWST03). One project was selected from each District on the forest with two additional projects selected from the remaining 16 projects pooled together.

Table 2. Soil Disturbing Projects in 2018 and 2019

District	Year	Project Name
Forest-wide	2019	Boise & Sawtooth Forest-wide Invasive Plant Species Treatments
Minidoka	2018	Black Pine Exploration Plan of Operations
		Cabin-Harry Neil Springs Restoration Project*
		Hadley Small Tracts Act
	2019	Albion-Raft River Aspen Habitat Restoration Project
		Goose Creek Sage Grouse Habitat Restoration Project*
Ketchum	2018	Johnson Creek Aquatic Habitat Project
		Sun Valley Heliski Guides Special Use Permit
		Sun Valley Ski Area (Cold Springs) Project

	2019	Deer Creek Bridge Replacement & Road Replacement*
		Eagle Creek Diversion & Ditch Special Use Permit
Sawtooth NRA	2018	Big Wood Travel Management
		Elk Mountain East Vegetation Management*
		Hemingway-Boulders & White Cloud Wilderness Management Plan
		MMW Acquisition Land Treatments
		Replacement of Road 205 Crossing of Cabin Creek
	Valley Creek Road Rehabilitation	
	2019	MTE Communications Fiber Optic Installation
Fairfield	2018	Over-snow Vehicle Travel Management in Northern Portion of FRD*
	2019	Smokey Mountain Outfitter and Guide Special Use Permit Renewal*

* Selected for review

Table 3. Projects Reviewed for Detrimental Disturbance (DD) and Total Soil Resource Commitment (TSRC)

District	Project Name	DD	TSRC
Minidoka	Cabin-Harry Neil Springs Restoration Project	1.7%	0.08%
	Goose Creek Sage Grouse Habitat Restoration Project	6.0%	0.1%
Ketchum	Deer Creek Bridge Replacement & Road Replacement	8.1%	-0.3%
Sawtooth NRA	Elk Mountain East Vegetation Management	5.3%	0.1%
Fairfield	Over-snow Vehicle Travel Management in Northern Portion of FRD	0.0%	0.0%
	Smokey Mountain Outfitter and Guide Special Use Permit Renewal	0.0%	0.0%

The six projects range from 0 to 8.1% for DD and from -0.3% to 0.1% for TSRC (Table 3). The Deer Creek Bridge Replacement & Road Replacement project had negative TSRC due to the obliteration of a road segment. The review of these six projects reveal that projects on the Forest are maintaining soil productivity by keeping DD below 15% and not increasing TSRC beyond 5%.

Monitoring Question: Are Forest management strategies effectively controlling or eradicating targeted populations of noxious weeds and preventing new invader species from becoming established?

Indicator #1: Acres of known infestation in management areas identified for eradication or control

Indicator #2: Acres treated of new invader species to the forest

Indicator #3: Acres treated of new infestations

This monitoring question and indicators are currently undergoing administrative change.

2.3 Human Uses and Designations

2.3.1 FACILITIES

Monitoring Question: *Is the transportation system providing recreation opportunities, safe and efficient public and agency access, and are environmentally compatible?*

Indicator #1: *Miles of roads maintained by maintenance level*

Yes, the transportation system is providing recreation opportunities and safe, efficient public and agency access that is environmentally compatible.

National Forest System Roads can be broken down into various categories with the most common being maintenance level. Maintenance levels define the level of service provided by, and maintenance required for, a specific road consistent with road management objectives and maintenance criteria. Maintenance levels range from one to five and are defined in the Forest Service’s Travel Routes Data Dictionary and Forest Service Handbook (FSH 7709.59, 62.32). Table 4 shows the miles of roads maintained by maintenance level.

Table 4. Roads Receiving Maintenance

Fiscal Year	Operation Maintenance Level	Miles Receiving Maintenance	System Miles	%
2018	5	0.39	20.94	1.86
	4	13.69	16.80	81.49
	3	219.10	268.73	81.53
	2	98.67	1,292.4	7.63
	1	0.5	212.86	0.23
	2018 Totals	332.35	1,811.7	18.34
2019	5	0.0	22.46	0.0
	4	16.80	16.80	100.0
	3	198.45	268.66	73.87
	2	220.11	1,285.6	17.12
	1	0.5	215.02	0.23
	2019 Totals	437.80	1,808.6	24.21

Indicator #2: *National Visitor Use Monitoring Results Percent Satisfaction Index for facilities, road conditions, trail conditions, and services provided*

National Visitor Use Monitoring (NVUM) satisfaction surveys were last monitored in 2015 (Table 5). Updated NVUM visitor satisfaction monitoring will be completed in 2020 and the updated data will be available in 2021.

Table 5. Visitor Satisfaction Survey for Recreation Facilities and Services

Satisfaction Element	Percent Rating Satisfaction as:					Mean Ratings¹	Mean Importance²	No. Obs³
	Very Dissatisfied	Somewhat Dissatisfied	Neither Satisfied or Dissatisfied	Somewhat Satisfied	Very Satisfied			
Restroom Cleanliness	0.0	1.2	4.1	14.3	80.4	4.7	4.7	200

Developed Facilities	0.8	1.6	5.3	11.0	81.4	4.7	4.7	231
Condition of Environment	0.0	1.1	5.6	12.7	80.6	4.7	4.8	315
Employee Helpfulness	2.1	0.0	1.8	7.2	88.9	4.8	4.7	169
Interpretive Displays	0.0	2.7	9.4	19.7	68.3	4.5	4.3	193
Parking Availability	.03	1.1	10.0	15.8	72.7	4.6	4.3	293
Parking Lot Condition	1.2	1.4	7.8	14.1	75.6	4.6	4.1	280
Rec. Info. Availability	1.3	2.7	11.1	15.3	69.6	4.5	4.4	261
Road Condition	1.9	5.7	10.7	25.4	56.3	4.3	4.5	194
Feeling of Safety	0.0	0.0	2.4	8.7	89.0	4.9	4.6	308
Scenery	0.6	0.0	2.2	3.8	93.4	4.9	4.8	316
Signage Adequacy	0.3	2.1	9.8	21.3	66.4	4.5	4.3	293
Trail Condition	0.0	1.2	4.0	18.0	76.7	4.7	4.7	250
Value of Fee Pay	4.3	7.9	8.4	18.2	61.3	4.2	4.7	179

¹Mean Ratings Scale: 1 = Very Dissatisfied, 2 = Somewhat Dissatisfied, 3 = Neither Satisfied nor Dissatisfied, 4=Somewhat Satisfied, and 5 = Very Satisfied

²Mean Importance Scale: 1 = Not Important, 2 = Somewhat Important, 3 = Moderately Important, 4 = Important, 5 = Very Important

³Number of Observations is the number of survey respondents who responded to this item.

Indicator #3: Miles of trail maintained

Table 6 lists the miles of trails maintained. The accomplishment for miles of trail maintained can be defined as the miles of National Forest System trail on which at least one maintenance task is performed to standard during the fiscal year. “Standard” refers to the Trail National Quality Standards (FSH 2309.18, Section 15, exhibit 01). This measure includes annual/routine maintenance and deferred maintenance. (Trail and structures all serviceable and Trails and structures in disrepair).

Table 6. Miles of Trail Maintained by District

District	2018	2019
Minidoka	85	98
Ketchum	284	300
Sawtooth NRA	250	350
Fairfield	330	357
Forest-wide	949	1,105

Monitoring Question: Do potable water systems meet federal, state, and local requirements?

Indicator: Water quality monitoring results and condition surveys

Substantially yes, the potable water systems on the forest meet federal, state, and local requirements. The forest has approximately 55 active potable water systems for administrative sites and campgrounds. In fiscal years 2018 and 2019, the forest had one instance where an Idaho Department of Environmental Quality health-based violation occurred. That violation was resolved.

The water systems are on a five-year rotation for condition surveys. In 2018, nine systems were surveyed (17%). In 2019, eleven systems were surveyed (20%).

2.3.2 RECREATION SETTING

Monitoring Question: *Are recreation activity levels changing, and are shifts occurring between types of activities and locations of recreational use?*

Indicator: *Specific changes to the Recreation Opportunity Spectrum (ROS)*

Multiple decisions signed in 2018 led to changes in ROS Class acres. Table 7 reflects updated ROS Class acres resulting from the Hemingway-Boulders and White Cloud Wilderness Management Plan decision and the Big Wood Travel Management decision. Table 8 reflects updated ROS acres resulting from the Over-Snow Vehicle Travel Management in Northern Portion of Fairfield Ranger District decision. See Sawtooth Forest Plan Appendix F for more information on ROS class descriptions.

Table 7. 2018 ROS Class Acres

Winter 2018		Summer 2018	
ROS	Acres	ROS	Acres
Primitive	412,464	Primitive	411,321
Rural	2,177	Rural	8,594
Roaded Modified	488	Roaded Modified	513,155
Roaded Natural	85,435	Roaded Natural	323,224
Semi-Primitive	1,584,982	Semi-Primitive Motorized	685,214
Semi-Primitive Non-Motorized	104,271	Semi-Primitive Non-Motorized	248,308
Total	2,189,817	Total	2,189,816

Table 8. 2019 ROS Class Acres

Winter 2019		Summer 2019	
ROS	Acres	ROS	Acres
Primitive	444,556	Primitive	448,875
Rural	2,177	Rural	8,594
Roaded Modified	488	Roaded Modified	505,177
Roaded Natural	83,110	Roaded Natural	317,107
Semi-Primitive	1,493,354	Semi-Primitive Motorized	679,486
Semi-Primitive Non-Motorized	166,138	Semi-Primitive Non-Motorized	230,585
Total	2,189,823	Total	2,189,824

Monitoring Question: *Are conflicts arising between recreational uses? Are conflicts being resolved?*

Indicator: *Number of plans or other mechanisms developed to resolve conflicts*

Conflicts are present between recreational uses on the forest. To address these conflicts, the forest developed and signed two decisions in 2018. The Big Wood Travel Management Plan was implemented in 2018. This designated routes open to motorized vehicles. The Over-Snow Vehicle Travel Management in the Northern Portion of the Fairfield Ranger District was implemented in 2019.

This decision opened additional areas for snowmobile use by the general public that were historically only open to private landowners. In addition, the decision closed the northern portion of the Fairfield Ranger District to snowmobile use to reduce conflicts between winter motorized use and wintering wildlife.

2.4 Economic, Cultural, and Social Environment

2.4.1 SOCIAL AND ECONOMIC

Monitoring Question: *Is the Forest meeting the expected outcomes as by-products of restoration?*

Indicator: *Levels of commercial and non-commercial timber products provided (Allowable Sale Quantity [ASQ] and Total Sale Program Quantity [TSPQ])*

The Sawtooth National Forest has offered and sold an average of 1,152.51 million board feet (MBF) timber sale volume per year that contributes to the ASQ. This represents about 21% of the ASQ as stated in Forest Plan Objective TROB02. The Forest has sold an average of 1,730.21 total forest product volume per year (generated from restoration vegetation management activities) which represents about 22% of the estimated TPSQ in Forest Plan Objective TROB03. Based on this, the Forest is not meeting expected outcomes as by-products of restoration. The primary limiting factor that constrains the ability to increase timber sale volume is the limited market capacity for forest products in the south half of the forest. The Fairfield District and north part of the SNRA are within reasonable haul distances of larger timber purchasers in southwest Idaho and eastern Oregon. A new lumber processing facility in Emmett (Woodgrain Millwork) has not bid on any sales on the Forest to date, but the Fairfield District and SNRA are within reasonable haul distance of Emmett.

Objective TRBO02 - *On a decadal basis make available 54 million board feet of timber which will contribute to Allowable Sale Quantity (ASQ). (FLRMP page III – 44).*

Accomplishment: Timber volume is reported in thousand board feet (MBF), therefore 54 million board feet is 54,000 MBF over 10 years (average 5,400 MBF per year). Table 9 shows the total sawlog volume sold by fiscal year for the analysis period.

Table 9. Summary of Total Sawlog MBF Volume Sold Contributing to ASQ by Fiscal Year

District/Area	MBF Volume by Fiscal Year					5-year Total MBF Sold
	2015	2016	2017	2018	2019	
Minidoka	1,133.87	302.36	728.59	8.74	376.40	2,549.96
Ketchum		19.15		118.10	66.12	203.37
SNRA	13.62	518.49	15.11	13.37	648.62	1,209.21
Fairfield	782.50			969.02	48.48	1,800.00
Forest Total	1,929.99	840.00	743.70	1,109.23	1,139.62	5,762.54

The average annual ASQ volume sold during the analysis period is 1,152.51 MBF (5,762.54/5), which is approximately 21 percent of the annual objective ASQ of 5,400 MBF. The Minidoka District sold the most volume while the least was sold on the Ketchum District. Sawlog volume sold in 2019 would have been higher but two sales that were planned to be advertised and sold in FY2019 were deferred and sold in FY2020. Table 10 displays the sawlog volume that was offered but not sold (“No Bid”)

during the analysis period.

Table 10: Summary of Sawlog MBF Volume Offered but Not Sold (No Bid).

District/Area	MBF Volume by Fiscal Year					Grand Total
	2015	2016	2017	2018	2019*	
Minidoka	320.09	298.83	57.48	317.49		993.89
Ketchum						
SNRA			15.00	1,285.39		1,300.39
Fairfield			786.19			786.19
Forest Total	320.09	298.83	858.67	1,602.88	0.00	3,080.47

- There weren't any "No Bid" sales in FY2019

A total of 7 timber sales were offered but not sold during the analysis period, totaling 3,080.47 MBF (average 616.09 MBF per year) (Table 10). All of the sales, except one in 2017, eventually sold, but some had to be offered 3 times over a period of 3 years before they sold. For example, the South Summit timber sale on the Minidoka District was offered in 2015 with a total sale volume of 320.09 MBF. It was reoffered in 2016 and did not sell. It was offered for a 3rd time in 2017 and sold. The Little Redfish timber sale on the SNRA was reoffered twice in FY2017. The primary reason for "No Bid" sales is due to the limited market capacity for sawlogs in South Central Idaho. All sales offered in 2019 received bids and were awarded.

Objective TRBO03 - Utilize wood products (e.g., fuelwood, posts, poles, house logs, etc.) generated from vegetation treatment activities, on both suited and not suited timberlands, to produce an estimated 25.9 million board feet of volume on a decadal basis. This volume, when combined with ASQ, is the Total Sale Program Quantity (TSPQ). On a decadal basis, the TSPQ is estimated to be 80 million board feet" (FLRMP page III - 44).

Accomplishment: Non-sawlog wood products such as fuelwood, post and poles, and house logs are also referred to as "convertible wood products" because they are sold in cords or by the piece which can be converted to MBF with standard conversion formulas. Non-convertible products such as Christmas trees, cannot be converted to MBF volume and are not included in this report. Table 11 displays the total non-sawlog MBF volume sold during the analysis period which includes commercial fuelwood, post and poles. Personal use fuelwood sales are not included in Table 11 because generally they are not generated from vegetation treatment activities.

Table 11: Summary of Non-Sawlog Volume Sold during the Analysis Period

District/Area	MBF Volume by Fiscal Year					5-year Total
	2015	2016	2017	2018	2019	
Minidoka	30.18	21.26	53.13		233.88	338.45
Ketchum				122.46	27.82	150.28
SNRA	109.52	918.94	330.54	257.48	545.42	2,161.90
Fairfield						
Forest Total	139.70	940.20	383.67	379.94	807.12	2,650.63

The volume in Table 11 contributes to the non-sawlog portion of the TSPQ (Forest Plan objective TROB03). The average non-sawlog volume sold annually for the Forest is 530.13 MBF, mostly on the SNRA. This represents about 21% of the objective sale quantity for non-sawlog forest products. Table 12 displays the total volume of timber sold for the analysis period and includes sawlogs, commercial fuelwood, and post/poles products.

Table 12: Summary of Total Timber MBF Volume Sold for Sawlog and Non-sawlog for the Analysis Period.

District/Area	MBF Volume by Fiscal Year					5-year Total
	2015	2016	2017	2018	2019	
Minidoka	1,164.05	323.62	781.72	8.74	610.28	2,888.41
Ketchum		19.15		240.56	93.94	353.65
SNRA	249.64	1,454.93	300.38	270.85	1,289.20	3,565.00
Fairfield	790.50		14.00	980.02	59.48	1,844.00
Forest Total	2,204.19	1,797.70	1,096.10	1,500.17	2,052.90	8,651.06

Table 12 represents the 5-year contribution towards the TPSQ. The average annual TPSQ is 7,990 MBF which is derived from adding the average annual sawlog ASQ (, 5,400 MBF, Objective TRBO02) to the annual non-sawlog ASQ (2,490 MBF, Objective TRBO03). The average annual volume sold of 1,730.21 MBF represents about 22% of the average annual objective TPSQ defined in Forest Plan objective TROB03. It is important to note that the above volume figures do not include personal use fuelwood sales which are a major portion of the volume sold on the Forest as shown in Table 13. Personal use fuelwood is not included in the TPSQ because it usually is not generated from vegetation management activities. That does not mean that personal use fuelwood does not contribute to vegetation management objectives. In some situations, removal of personal use fuelwood reduces fuels, removes harmful insects and reduces hazards adjacent to open roads.

Table 13: Summary of Personal Use Fuelwood Permit MBF Volume Sold.

District/Area	MBF Volume by Fiscal Year					5-year Total Grand Total
	2015	2016	2017	2018	2019	
Minidoka	1,301.06	1,101.71	1,321.83	1,520.40	1,668.01	6,913.01
Ketchum	903.00	955.00	903.50	949.00	995.00	4,705.50
SNRA	791.89	603.13	705.39	1,062.85	980.86	4,144.12
Fairfield	353.80	357.50	555.40	510.79	453.63	2,231.12
Forest Total	3,349.75	3,017.34	3,486.12	4,043.04	4,097.50	17,993.75

The Minidoka District has the most amount of personal use firewood sales on the Forest (over 38% of the total) due to ease of road access to large portions of the district and proximity to Twin Falls and surrounding towns with a population over 50,000. Large portions of the north zone of the Forest are inaccessible to personal use fuelwood and the towns of Hailey, Ketchum, Fairfield and Stanley have much smaller populations than Twin Falls and vicinity.

The total volume sold during the analysis period for all timber sale contracts and permits is 26,695.08 MBF, for an average of 5,339.02 per year. Personal use fuelwood sales account for 67% of the total volume sold on the Forest.

Analysis Period: 2015-2019 (5 full fiscal years since the Forest Plan Amendment was signed)

Measures: Total MBF offered per year for sawlogs and other convertible products (fuelwood, posts and poles and house logs) generated by vegetation treatment activities.

Data Source: Timber Information Manager (TIM) which is used for documenting and managing timber sales, stewardship contracts and forest products permits. TIM provides for upward reporting of timber

volume and value accomplishments (Timber Information Manager Support webpage: <http://fsweb.nrm.fs.fed.us/support/docs.php?appname=tim>)

Monitoring Question: *Are current forest management strategies providing for livestock grazing opportunities while maintaining ecological integrity?*

Indicator #1: *Number of grazing authorizations provided annually and over a 10 year period*

In order to identify the number of grazing authorizations provided annually and over a 10 year period, the annual grazing statistical forest/grassland report was generated from INFRA. From the statistical report, the total National Forest System (NFS) authorized head months (HMs) was used to compare each year, instead of number of grazing authorizations, which usually remain fairly constant.

The fluctuation seen in the authorized HMs is usually due to annual variations in precipitation and temperature, resulting in drought conditions or excess forage availability. As well as non-use for resource protection following wildfires. Authorized HMs may fluctuate due to permittees requesting non-use for personal convenience due to livestock market variability.

Table 14. Total HMs Authorized for Livestock Grazing

2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
201,373	199,156	198,111	184,482	192,389	186,615	177,272	194,205	178,686	180,376

2.4.2 TRIBAL INTERESTS AND RIGHTS

Monitoring Question: *Are Tribal interest and rights identified through consultation being addressed?*

Indicator: *Challenges identified in annual Tribal Summary Report submitted to WO Tribal Relations*

The Forest formally consults with the Shoshone-Paiute Tribe every other month and the Shoshone-Bannock Tribe quarterly. In addition, all Tribes including the Nez Perce Tribe, are formally contacted for comments on all projects requiring NEPA. No challenges were identified in 2018 or 2019.

2.4.3 HISTORIC RESOURCES

Monitoring Question: *Are historic properties being managed to standard?*

Indicator #1: *Presence of a Heritage Management Plan (HMP)*

The Forest has an HMP, but it is not complete. Currently, work is being contracted to complete a predictive model and the Forest Archeologist is completing an Archeological Site Identification Strategy. Once those are finalized, they will become part of the Forest HMP. The HMP is one piece of Heritage Program Managed to Standard.

Heritage Program Managed to Standard is the annual target for the Forest's Heritage program and is measured using a point system based on data collected from the Natural Resource Manager-Heritage system. There are 7 indicators or areas that can score a maximum of 10 point each. The

Forest needs a minimum of 45 points to have a Heritage Program that is managed to Standard. The Forest scored 53 points in 2018 and 46 points in 2019.

Indicator #2: Evaluation for eligibility for listing on the National Register of Historic Places

At least 1,761 out of 3,373 sites (52%) on the Forest have been evaluated for the National Register of Historic Places; 10 sites are listed on the National Register of Historic Places.

3. DETERMINATIONS FROM THE BIENNIAL EVALUATION

Based on evaluations that were conducted, the following are the determinations for adaptive management, per 36 CFR 219.12(d)(2):

3.1 Need for Changing the Forest Plan

Monitoring has not indicated a need for changing the Sawtooth National Forest Plan.

3.2 Need for Changing Management Activities

Monitoring has indicated a need for changing management activities, particularly in meeting the Forest Plan expected outcomes as by-products of restoration. Since annual levels of commercial and non-commercial timber products are well below the Sale Quantity and Total Sale Program Quantity (21% and 22% respectively), the Forest needs to increase its pace and scale of timber harvest and restoration activities.

3.3 Need for Changing the Monitoring Program

Monitoring and preparation of this report have indicated several administrative changes and corrections of clerical errors needed for the monitoring plan. The changes will be based on better aligning the monitoring question with the indicator. Once the Forest has determined the specific changes to the monitoring plan, the Forest Supervisor shall provide the public notice of and an opportunity to comment on those proposed changes and shall consider public comments on the proposal (FSH 1909.12, ch. 30, sec. 32.4).

3.4 Need for Conducting an Assessment to Determine Preliminary Need to Change the Plan

Monitoring has not indicated a need for conducting an assessment to determine preliminary need to change the plan.

4. DATA SOURCES

Data sources for this report are national databases used by the Forest Service. Following is a brief description of each:

4.1 Natural Resource Manager

Natural Resource Manager (NRM) is a national Forest Service organization that is responsible for coordinating software development activities for four application groups whose data are

accessible through the NRM platform or the Enterprise Data Center:

- Forest Service Activity Tracking System (FACTS)
- Infra
- Natural Resource Information System (NRIS)
- Timber Information Manager (TIM)

These applications often intersect in how they collect and share data and in how they develop software and use technology. NRM finds ways to manage and grow these applications efficiently and has already begun to standardize the processes used to develop an integrated program of work. NRM also will be looking for effective ways to use resources to reduce duplication of effort and to maximize technology investments.

4.1.1 FACTS

The Forest Service Activity Tracking System (FACTS) is an activity tracking system for all levels of the Forest Service. It supports timber sales in conjunction with TIM Contracts and Permits; tracks and monitors NEPA decisions; tracks KV trust fund plans at the timber sale level, reporting at the National level; and, it generates National, Regional, Forest, and/or District Reports.

4.1.2 INFRA

Infra is a collection of Web-based data entry forms, reporting tools, and GIS tools that enable Forests to manage and report accurate information about their inventory of constructed features and land units as well as the permits sold to the general public and to partners. This information is used by Forest supervisors for the effective management of their Forests and also by visitors, partners, and Congress. Infra is a valuable tool for:

- Forest-level management
- Forest analysis, planning, and budgeting
- Implementing core data layers such as trails, roads, cultural properties, recreation, and range allotments
- Monitoring financial accountability; capitalization, depreciation and deferred maintenance
- Collecting partnerships information such as grants, agreements, and leases
- Collecting information to be made available to the public; data warehouse, Wilderness use permits, e- government
- Administering Forest permits and billings, such as range and special uses

Infra also interfaces with several external systems to meet data sharing and financial reporting goals. Infra transmits daily feeds of permit billing and grant and agreement financial information to the Foundation Financial Information System. Infra also transmits real property information to the USDA's Corporate Property Automated Information System.

4.1.3 NRIS

The Natural Resource Information System (NRIS) combines a series of standard corporate databases and computer applications designed to support field-level users. NRIS databases contain basic natural resource and socio-economic data in standard formats built to run within

the Forest Service computing environment. Some of the products available in NRIS include:

- Air Quality Information (AIR)
- Aquatic Surveys (AqS)
- FSVeg (Common Stand Exam, includes a geospatial component)
- Inventory and Mapping (Geology, Soils, etc.)
- National Visitor Use Monitoring (NVUM)
- Rangeland Inventory and Monitoring
- Threatened, Endangered, Sensitive Plants, and Invasive Species (TESP/IS)
- Water Rights and Uses (WRU)
- Watershed Classification and Assessment Tracking Tool
- Watershed Improvement Tracking (WIT)
- Wildlife

4.1.3.1 Air Quality Information (AIR)

The AIR application helps air resource managers analyze the effects of air pollutants on natural, cultural, and social resources on lands managed by the Forest Service.

4.1.3.2 Aquatic Surveys (AqS)

Aquatic Surveys (AqS) supports ecological and physical stream variables for three hierarchical levels of the riverine system on NFS lands: valley segments, stream reaches and channel units. Data collected about aquatic fauna communities (fish, invertebrates, macroinvertebrates, amphibians, reptiles) in streams, lakes and spring environments are supported.

4.1.3.3 Field Sampled Vegetation (FSVeg)

Field Sampled Vegetation (FSVeg) stores data about trees, fuels, down woody material, surface cover, and understory vegetation. FSVeg supports the business of common stand exam, fuels data collection, permanent grid inventories, and other vegetation inventory collection processes.

4.1.3.4 Field Sampled Vegetation Spatial (FSVeg Spatial)

FSVeg Spatial manages spatial and tabular vegetation data in one place, at one time. It contains three types of data:

- The vegetation polygon feature class (required to use FSVeg Spatial),
- The vegetation point feature class, and
- Non-stand-exam vegetation data associated with the polygon feature class.

4.1.3.5 National Visitor Use Monitoring (NVUM)

National Visitor Use Monitoring (NVUM) software manages information gathered from on-site surveys of recreation visitors to lands managed by the Forest Service. For information about NVUM's statistical methodology, visit Recreation, Heritage & Wilderness Programs National Visitor Use Monitoring Program. Data collection is based on a stratified random sample methodology to develop sound estimates of visitor use, characteristics, satisfaction, and spending information for each national forest.

The NVUM Results software is now available to the public on the Internet. It delivers NVUM statistics at the national, regional and forest scales using 70 pre-defined reports and maps. Results from individual forests can be combined using the Results software to access multiple-forests, regional, and national estimates of the numbers and types of recreation visits. Reports are available for all years beginning with fiscal year 2005 (October 1, 2004 to September 31, 2005).

4.1.3.6 Rangeland Inventory and Monitoring

Rangeland Inventory and Monitoring supports national protocols for vegetation and ground cover sampling, general site characterization and detailed soil pedon descriptions. The application supports site characterization, interpretations and classifications; it also accommodates casual point observations with basic attributes.

National vegetation sampling protocols supported by the application include: Tree/Snag, Ocular Macroplot, Line Intercept, Cover Frequency, Nested Rooted Frequency, Robel Pole, Density, Paced Transect, Macroplot, Riparian Greenline–Winward, Riparian Cross Section–Winward, and Riparian Woody Regeneration–Winward. Rangeland Inventory and Monitoring is a spatial application intended for defined projects with formal protocol- or program-driven inventories.

4.1.3.7 Threatened, Endangered, and Sensitive Plants, and Invasive Species (TESP/IS)

TESP/IS support national data collection standards for combined TESP and invasive species surveys, TESP element- occurrences, and Invasive Species Inventories.

4.1.3.8 Water Rights and Uses (WRU)

Water Rights and Uses (WRU) tracks state and federally recognized water uses and related information regarding the water source, beneficial uses, quantity, and periods of water use. The application also tracks core information about water rights that may be associated to the water use and the legal and administrative actions that occur. Data collected during site visits to water use system components includes descriptions and dimensions of the water use system as well as site maps, reports and digital photographs. Integration with other Forest Service corporate applications including Automated Lands Project (ALP) and Infra are also supported to provide for a variety of integrated reports

4.1.3.9 Watershed Classification and Assessment Tracking Tool (WCATT)

NRM developed the Watershed Classification and Assessment Tracking Tool (WCATT) application in support of the Watershed Condition Framework (WCF) to provide a nationally consistent approach for classifying watershed condition. The tool supports the entering, editing and reporting of classification and assessment data for watersheds that contain Forest Service lands. WCATT provides a GIS approach to data input for tracking Watershed Classification by 12-digit hydrologic units by year. The Watershed, Fish, Wildlife, Air, and Rare Plants Directors area sponsor it.

4.1.3.10 WIT

Watershed Improvement Tracking (WIT) manages data, observations and planning details

about sites that need to be (or have been) restored or improved with the intent of benefiting watershed and aquatic ecosystem health and function. The application is a watershed restoration activity tracker that addresses site conditions, administrative plans and actions, and outcomes. The primary users of WIT are biologists and hydrologists; however, the reporting products deliver raw or summarized information valuable for project leaders, program managers, and public relations staff.

4.1.3.11 Wildlife

Wildlife supports terrestrial animal observations and site inventories.

4.1.4 TIM

The Timber Information Manager (TIM) supports the business of managing Timber Sales, Salvage Sales, Stewardship Contracts, and Forest Products Permits on National Forest lands. While TIM is used to complete the resource job at the field-level, it simultaneously captures information for service-wide reporting needs. TIM is integrated with other national systems, such as FACTS and PALS for project data, National Cruise applications (for timber volume), FMMI for contacts and billing information, and ATSA for payments, interest, penalties, and contract bonding.

4.2 GIS

The Sawtooth National Forest Geographic Information System (GIS) consists of both corporate Forest Service data and Sawtooth National Forest specific data as managed by the Forest's GIS Specialist.