United States Department of Agriculture

Biennial Monitoring Evaluation Report for the Wasatch-Cache National Forest



Forest Service

Wasatch-Cache National Forest

September 2026

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About our Plan Monitoring Program

Purpose

The purpose of the biennial monitoring evaluation report is to help the responsible official (Forest Supervisor) determine whether a change is needed in forest plan direction, such as plan components or other plan content that guide management of resources in the plan area. The biennial monitoring evaluation report represents one part of the Forest Service's overall monitoring program for this national forest unit. The biennial monitoring evaluation report is not a decision document—it evaluates monitoring questions and indicators presented in the Plan Monitoring Program chapter of the forest plan, in relation to management actions carried out in the plan area.

Our monitoring plan covers these eight topics required under FSH 1909.12, in addition to social, economic and cultural sustainability. You'll find each of these topics addressed in this report, with a cross-reference to the Wasatch-Cache NF Monitoring Questions provided on page 7.

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, conserve proposed and candidate species, and maintain 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 on the plan area related to climate change and other stressors that may be affecting the plan area.
7. 7. Progress toward meeting the desired conditions and objectives in the plan, including for providing multiple use opportunities.
8. The effects of each management system to determine that they do not substantially and permanently impair the productivity of the land (16 U.S.C. 1604(g)(3)(C)). (36 CFR 219.12(a))

How Our Plan Monitoring Program Works

Monitoring and evaluation requirements have been established through the National Forest Management Act (NFMA) at 36 CFR 219. Additional direction is provided by the Forest Service in Chapter 30 – Monitoring – of the Land Management Handbook (FSH 1909.12). The Wasatch-Cache National Forest monitoring program was updated on November 20, 2015 for consistency with the 2012 planning regulations [36 CFR 219.12 (c)(1)]. The Wasatch-Cache National Forest Plan was administratively changed to include the updated monitoring program (Chapter 6: Monitoring and Evaluation Plan). For a copy of the current monitoring program go to https://www.fs.usda.gov/r04/uinta-wasatch-cache/planning. Monitoring questions and indicators were selected to inform the management of resources on the plan area and not every plan component was determined necessary to track [36 CFR 219.12(a)(2)].

The monitoring evaluation implementation guide (monitoring guide) is part of the overall plan monitoring program and provides more specific direction for implementing the more strategic plan monitoring program and details monitoring methods, protocols, and roles and responsibilities. The Monitoring Guide is not part of the plan decision and is subject to change as new science and methods emerge. The Uinta-Wasatch-Cache National Forest monitoring guide is available at upon request. Please contact Paul Cowley at the address on Page 2. Providing timely, accurate monitoring information to the responsible official and the public is a key requirement of the plan monitoring program. This biennial monitoring evaluation report is the vehicle for disseminating this information and identifying updates to the plan to keep it current.

Monitoring Objectives

The objectives of our plan monitoring plan include:

- Assess the current condition and trend of selected forest resources.
- Document implementation of the Plan monitoring Program
- Evaluate relevant assumptions, changed conditions, management effectiveness, and progress towards achieving the selected desired conditions, objectives, and goals described in the Forest Plan.
- Assess the status of previous recommended options for change based on previous monitoring & evaluation reports.
- Document scheduled monitoring actions that have not been completed and the reasons and rationale why.
- Present any new information not outlined in the current plan monitoring program that is relevant to the evaluation of the selected monitoring questions.
- Present recommended change opportunities to the responsible official.

Monitoring Results Summary

Tables 1 and 2 below summarize current adaptation recommendations for line officer consideration. Table 1 shows that at this time no monitoring items have been identified as needing change. Table 2 shows that two monitoring questions have the plan intent and recommendations as uncertain and the reason for a plan change may be under consideration in the future.

Table 1. Quantitative summary of adaptive management recommendations for all monitoring questions addressed in this report (3 total)

Recommendation	Yes, need for change	Unsure	No
Results inconsistent with Forest Plan direction	0	0	16
Change to Forest Plan warranted	0	0	16
Change to management activities warranted	0	0	16
Change to Plan monitoring program warranted	0	0	16
Focused assessment needed	0	0	16

Table 2. Summary of findings for each plan monitoring item (questions and indicators).				
Monitoring Item	**Last Year Updated**	**Consistency with Plan Intent[1]** *Do results demonstrate intended progress of the plan components associated with this monitoring item?*	**Recommendation[2]** *Based on the evaluation of monitoring results, may changes be warranted?*	**Type of Change(s) under consideration[2]** *Where may the change be needed?*
Monitoring Question #4, Are vegetation conditions stable or moving toward desired future conditions?	2017	B-Uncertain	B-Uncertain	More time needed to understand effect of wooly adelgid
Monitoring Question #12 Are Forest management activities and natural events affecting watershed conditions? Indicator #2 Air Quality - Trends of lichen biomonitoring sites.	2017	A – Uncertain	A - Uncertain	The lichen monitoring interval is 10 years. Next lichen station monitoring expected to be 2026
All Other Monitoring Questions and Indicators	2017	Yes	None	N/A

[1]Plan intent:
(A) Uncertain – Interval of data collection beyond this reporting cycle (indicate date of next time this monitoring item will be evaluated);
(B) Uncertain – More time/data are needed to understand status or progress of the Plan Component(s);
[2]Refer to pages below for more details regarding any specific recommendations for change.

Past Monitoring Recommendation and Status Summary

In 2018, two Forest Plan amendments were completed in response to issues of obsolete standards, guidelines, and definitions in the WCNF plan for Canada Lynx (Scoping, analysis, and decision information can be found at https://www.fs.usda.gov/project/?project=56203), to correct inaccurate delineation of Wilderness Management Prescriptions of a small area in the Henrys Fork and Beaver Creek watersheds in the High Uintas Wilderness.

Monitoring from 2020-2021 identified two issues in the WCNF Forest Plan. The first one was that management direction was lacking on many acquired land parcels and on Forest Service lands that were inaccurately delineated during the 2003 WCNF revision. The second one was the need to allow vegetation/fuels treatments

in undeveloped areas (Management Prescription 2.6) such as in pinion/juniper areas of the Forest. The first issue was resolved through a Forest Plan update for land acquired and/or were adjusted and moved into or out of wilderness designation. The second issue was resolved through a Forest Leadership decision that Management Prescription 2.6 areas would be dealt with on a project-by-project basis.

This monitoring and evaluation report has no recommendations for changes to the forest plan, management activities for implementing the forest plan, or the monitoring program or to conduct an assessment to determine if there exists a preliminary need to change the plan.

Other Considerations for Adaptive Management

No other considerations related to the monitoring program have been identified.

Forest Supervisor's Certification

This report documents the results of monitoring activities that occurred through Fiscal Year 2024-2025 on the Wasatch-Cache Planning unit of the Uinta-Wasatch-Cache National Forest. Monitoring on some topics is long-term and evaluation of those data will occur later in time.

I have considered the monitoring and evaluation results presented in this report. Based on the monitoring, I find no need to change the 2003 Land Management Plan, as amended, at this time and, therefore, consider it sufficient to continue to guide land and resource management of the Wasatch-Cache Planning Area for the near future. I also find no need to change the plan monitoring program or to conduct an assessment to determine if there exists a preliminary need to change the plan.

I will further examine the identified changes to the plan in response to non-monitoring related issues. If changes are needed, appropriate analysis and public engagement will occur.

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Kelly Orr
Forest Supervisor
Uinta-Wasatch-Cache National Forest

Date

Cross-Walk between Eight Requirements and Wasatch-Cache NF Monitoring Questions

This section of the report presents a cross-walk between the eight requirements which are noted at 36 CFR 219.12(a)(5) and the Wasatch-Cache Forest Plan monitoring questions

Monitoring Question #1, Education-Information:

Are we delivering key education/ enforcement messages to Forest employees and users? Addresses Requirement v. The status of visitor use, visitor satisfaction, and progress toward meeting recreation objectives.

Monitoring Question #2, Visitor Satisfaction:

What is visitor satisfaction on Forest Service lands? Addresses Requirement v. The status of visitor use, visitor satisfaction, and progress toward meeting recreation objectives.

Monitoring Question #3, Access:

Is adequate access to and across the Forest being provided? Addresses Requirement v. The status of visitor use, visitor satisfaction, and progress toward meeting recreation objectives and Requirement vii. Progress toward meeting the desired conditions and objectives in the plan, including for providing multiple use opportunities.

Monitoring Question #4, Vegetation Conditions:

Are vegetation conditions stable or moving toward desired future conditions? Addresses Requirement vi. Measurable changes on the plan area related to climate change and other stressors that may be affecting the plan area.

Monitoring Question #5, Fuels Reduction:

Are fuels reduction projects protecting property, human health and safety, and reducing the potential for unwanted fire effects (in the Wildland Urban Interface (WUI) and non-WUI)? Addresses Requirement vii. Progress toward meeting the desired conditions and objectives in the plan, including for providing multiple use opportunities.

Monitoring Question #6, Fire Management:

Are natural ignitions being managed to accomplish resource management objectives? Addresses Requirement vii. Progress toward meeting the desired conditions and objectives in the plan, including for providing multiple use opportunities.

Monitoring Question #7, Rangeland Management:

What is the extent of the change of ecological conditions due to invasive species? Do rangeland plant communities have desired species composition and is ground cover adequate? Addresses Requirement i. The status of select watershed conditions.

Monitoring Question #8, Focal species and Ecological Conditions:

Are Forest management activities and natural events affecting the ecological conditions indicated by the status of Focal species? Addresses Requirement iii. The status of focal species to assess the ecological conditions required under § 219.9.

Monitoring Question #9, Species Distribution:

Is there a change in species distribution across the Forest? Addresses Requirement vi. Measurable changes on the plan area related to climate change and other stressors that may be affecting the plan area.

Monitoring Question #10, Endangered Species Act Protected Species:

Are Forest management activities and/or natural events affecting ecological conditions that contribute to the recovery of federally listed threatened and endangered species, conserve proposed and candidate species, and maintain a viable population of each species of concern? Addresses Requirement iv. 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, conserve proposed

and candidate species, and maintain a viable population of each species of conservation concern.

Monitoring Question #11, Ecosystem Conditions:

Are Forest management activities and natural events affecting the ecological conditions of terrestrial and aquatic ecosystems? Addresses Requirement ii. The status of select ecological conditions including key characteristics of terrestrial and aquatic ecosystems.

Monitoring Question #12, Watershed Conditions:

Are Forest management activities and natural events affecting watershed conditions? Addresses Requirement i. The status of select watershed conditions.

Monitoring Question #13, NFMA compliance:

Are we complying with appropriate NFMA requirements? Addresses Requirement vii. Progress toward meeting the desired conditions and objectives in the plan, including for providing multiple use opportunities and Requirement viii. The effects of each management system to determine that they do not substantially and permanently impair the productivity of the land (16 U.S.C. 1604(g)(3)(C)).

Monitoring Question #14, Timber and Soil Productivity:

Are timber management activities impairing soil productivity of the land? Addresses Requirement viii. The effects of each management system to determine that they do not substantially and permanently impair the productivity of the land (16 U.S.C. 1604(g)(3)(C)).

Monitoring Question #15, Goods and Services:

Are goods and services being provided in accordance with Forest Plan goals and objectives? Addresses Requirement vii. Progress toward meeting the desired conditions and objectives in the plan, including for providing multiple use opportunities.

Monitoring Question #16, National Historic Preservation Act as amended:

Are cultural resources being protected as the Forest Plan is implemented and are mitigation measures sufficient prevent damage to cultural resources from project activities? Are *Historic Properties* receiving adverse effects from project implementation, vandalism, looting, and/or neglect? Addresses Requirement vii. Progress toward meeting the desired conditions and objectives in the plan, including for providing multiple use opportunities.

SUMMARY OF CHANGES TO THE FOREST PLAN SINCE THE 2022-2023 REPORT

The Forest Service completed the following amendments, corrections, and updates:

- Upper Weber Watershed Restoration Project project-specific Forest Plan Amendment to allow for Fuels Treatments in Management Prescription in 2.6.

Summary of Vegetative Changes in 2024-2025

The largest area of vegetative changes on the Wasatch-Cache Planning Area (WCNF) are from timber harvest and fuels treatments. In 2024-2025, the main ecological change is from 393 acres of commercial timber sales and 17,373 acres of fuel treatments (Heber RD (Uinta Planning Area) and Kamas RD are combined). These treatments are primarily the result of management actions taken to move toward desired future conditions. These activities account for a total 18,191 acres that were treated on the WCNF. In 2024-2025, natural events caused little change in ecosystem conditions because there were very few wildfires and those that occurred were small. In 2023, a deep record snowpack fell on northern Utah and the spring runoff occurred at a good rate and there were very few problems for the streams on the WCNF.

INFORMATION ON MONITORING QUESTIONS AND INDICATORS

<u>Monitoring Question #1</u> Education-Information: Are we delivering key education/ enforcement messages to Forest employees and users? (Key Focus Areas are OHV use, recreation user ethics, fire's role/hazardous fuels, noxious weeds, watershed health).

Finding: *No changes are needed. The WCNF delivers key education/enforcement messages to the Forest employees and users.*

Indicator #1 - Number of key messages.
Data source: Uinta-Wasatch-Cache NF Public Affairs Officer, information gathered during the National Visitor Use Monitoring surveys, responses from Forest visitors during field personnel interactions regarding effectiveness of messaging on kiosks, and Forest website and social media.

Monitoring result: Forest-wide messaging campaigns, Recreate Responsibly and Know Before You Go continued to be implemented in 2024-2025. Key messages were delivered through the Forest website and social media, employee interactions with visitors, partners amplifying through their social media, inclusion of messages on kiosks throughout Forest recreation sites, publications including visitor guides, media interviews, and State and local tourism centers. The primary audience for the messaging campaigns is the 9 million visitors the Forest receives annually.

<u>Monitoring Question #2</u> What is visitor satisfaction on Forest Service lands?

Finding: *No changes are needed.*

Indicator #1 - Level of visitor satisfaction.
Data source: The WCNF is currently collecting NVUM data every five years. Last data collected in 2022.
Monitoring result: A search of the NVUM database confirmed no new data has been collected since 2022. 2022 NVUM data indicate the Uinta-Wasatch-Cache had 9,378 estimated visits reported. Of those visits, 79.2 % were very satisfied. 16.3 % were somewhat satisfied, 2.6% were neither satisfied or dissatisfied and 1.9% were either somewhat or very dissatisfied.

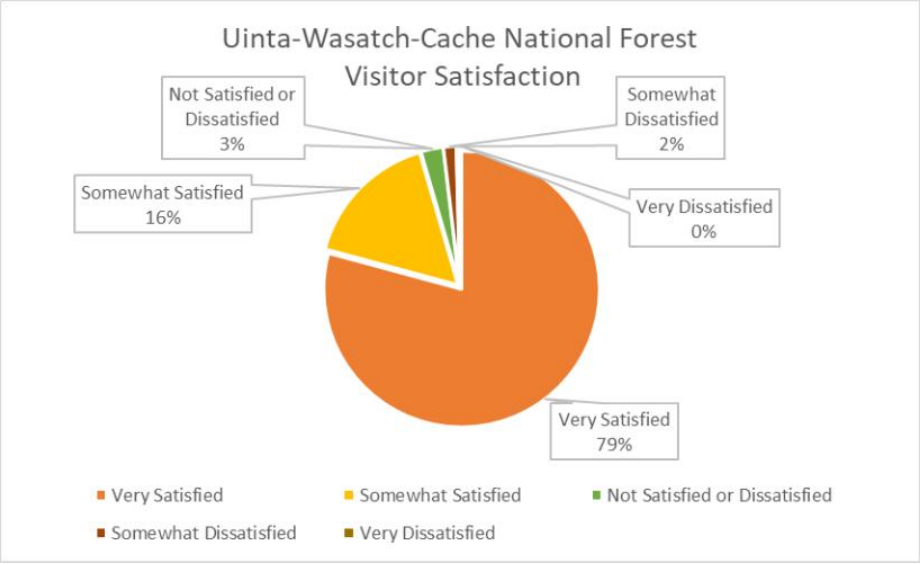


Figure 1: Visitor Satisfaction on Uinta-Wasatch-Cache National Forest

<u>Monitoring Question #3</u> Is adequate access to and across the Forest being provided?

Finding: *No changes are needed. Access is adequate.*

Indicator #1 - Miles of classified road open for public use, miles of motorized trail, miles of non-motorized trail.
Data source: *Uinta-Wasatch-Cache NF Motor Vehicle Use Map.*
Monitoring result: *At the end of FY 2025, there was a small increase in miles of classified roads open for public use this was due to improved mapping and mapping corrections. There was a small decrease in motorized trails also due to improved mapping and mapping corrections. There was an increase in non-motorized trails by 26 miles (2.4%), and no change ski/ snowshoe trails or snowmobile trails.*

Table 3. Forest Access for selected features in miles.

Year	***Classified roads open for public use[1]***	***Motorized trails***	***Snowmobile trails***	***Non-motorized trails***	***Ski/ snowshoe trails***
2019	*1,182*	*No data[2]*	*No data[2]*	*No data[2]*	*No data[2]*
2021	*1,185*	*252*	*254*	*1,098*	*87*
2023	*1,186*	*257*	*254*	*1,106*	*92*
2025	*1,190*	*256*	*254*	*1132*	*92*
Change from 2023-2025	*+4[3]*	*-1[3]*	*0*	*26*	*0*

[1] These are Forest Service public roads only and does not include State highways, administrative roads, or private roads.
[2] Data for the miles of motorized trails and non-motorized trails is not available in 2019 because of data review and re-digitizing in GIS.
[3] Changes due to improved mapping

<u>Monitoring Question #4</u> Are vegetation conditions stable or moving toward desired future conditions?

Finding: *No changes are needed.*

Indicator #1 Forested Vegetation –Extent of insect/disease infestations.
Data source: Forest Health Protection Annual Aerial Detection Survey, FACTS Database, and recorded accomplishments.

In 2024, the forest collected seed on 35 acres of Engelmann Spruce to increase inventory of seed on hand for reforestation if necessary. Also, in the spring 2025, in cooperation with Brighton Ski Resort, 40 acres of Engelmann Spruce, infested with spruce beetle were felled, debarked, and burned to prevent spruce beetle build-up. All other treatments were primarily to mitigate hazardous fuel build-up and improve wildlife habitat.

Information on Forest Health is consolidated by forest administrative unit and are not separated by Uinta or Wasatch-Cache Planning Areas. Below are two tables that include hazard ratings (i.e., potential susceptibility and/or mortality should an insect outbreak occur) for the UWC based on insect hazard models calculated using VCMQ data. The hazard ratings are broken into three categories: hazard more likely, hazard less likely, and no host (no hazard) and are broad estimates of moderate-to-high hazard for specific host types across the UWC. These numbers are intended to get a broad understanding of potential hazard but are not concrete

estimates due to the limitations of the underlying geospatial data resolution, rating methodologies employed, and data age. The data are intended for broadscale, mid-level planning, not site-specific planning.

The data below were generated in 2019 and are almost 7 years old, so some of the areas/acres for the various insects may already be dead due to insect activity. In particular, spruce beetle activity on the Mountain View killing Engelman spruce, mountain pine beetle activity on the Mountain View killing lodgepole pine and limber pine across the Forest, and fir engraver beetle across the white fir distribution within the UWC has killed many trees which would no longer be considered susceptible. The data in the tool used to produce the output in Table 1 has not been updated and are the same as they were in 2024.

Table 4. Hazard ratings of more likely, less likely, and non-host acres for key insect damage agents on the Uinta-Wasatch-Cache National Forest, Utah, 2019.

Agent	***Hazard***		
	More Likely	***Less Likely***	***No Host***
Douglas-fir Beetle	*27,534*	*184,637*	*2,335,565*
Spruce Beetle	*3,462*	*238,757*	*2,305,516*
Mountain Beetle	*5,946*	*271,119*	*2,270,671*
Fir Engraver	*12,032*	*11,110*	*2,524,594*
Pine Engraver	*110*	*75,736*	*2,471,890*
Western Spruce Budworm	*635,450*	*0*	*1,912,286*
Balsam Woolly Adelgid	*648,026*	*1,805,414*	*94,296*

To illustrate the recent extent of tree mortality or defoliation caused by the key damage agents, aerial detection survey (ADS) data from 2024 and 2025 are presented below (Table 2; Figure 1). Damage acres represent the density of tree mortality or defoliation. Most damage agents are associated with a specific host tree while some have a broader host range.

As trees become larger, older, and denser unmanaged stands will become more susceptible to the primary mortality-causing bark beetles including spruce beetle, mountain pine beetle, Douglas-fir beetle, and fir engraver in their respective host types. Environmental conditions such as dry, hot weather can interact with conducive stand conditions fueling bark beetle outbreaks at varying scales. Of additional concern are high-elevation limber pine forests. While ADS-mapped damage acres in this forest type don't typically reach alarming levels, these forests are valuable to high-elevation systems and contain limited numbers of trees. Small-scale mortality in limber pine can have large impacts over time.

Most damage caused by balsam woolly adelgid (BWA) on the UWC is occurring on the Logan, Ogden, Salt Lake, and Heber-Kamas Ranger Districts. Through time, this invasive insect will become a more prevalent mortality agent on subalpine fir across the Forest. Western spruce budworm (WSB) occurs across the UWC but is most prevalent on the Logan Ranger District. This defoliating insect is typically cyclic but can fester in some locations for a decade or more. Mortality most frequently occurs to understory host trees. Overstory trees may die from prolonged, repeated defoliation, but stress from continued defoliation may lead to subsequent mortality from bark beetles or other damage agents. Subalpine fir can also succumb to a variety of other insect and disease agents acting alone or in conjunction with each other (i.e., subalpine fir decline).

Table 5. 2024-2025 ADS Summary for Key Pests - Uinta-Wasatch-Cache National Forest, Utah.			
Survey Year		***2024***	***2025***
Total Acres Surveyed		***2,850,063***	***2,563,032***
% of Forest Surveyed		***98%***	***88%***
Agent	***Tree Species Affected***	***Damage Area (ac)***	
Balsam Woolly Adelgid	*Subalpine fir*	*2,500*	*1,400*
Fir Engraver	*White fir*	*1,200*	*630*
Subalpine Fir Decline	*Subalpine fir*	*710*	*950*
Western Spruce Budworm	*Subalpine fir, white fir, Douglas-fir, spruce*	*750*	*240*
Douglas-fir Beetle	*Douglas-fir*	*550*	*370*
Spruce Beetle	*Engelmann spruce*	*20*	*60*
Mountain Pine Beetle	*Lodgepole pine, ponderosa pine, limber pine*	*80*	*50*
Sums*		***5,810***	***3,700***

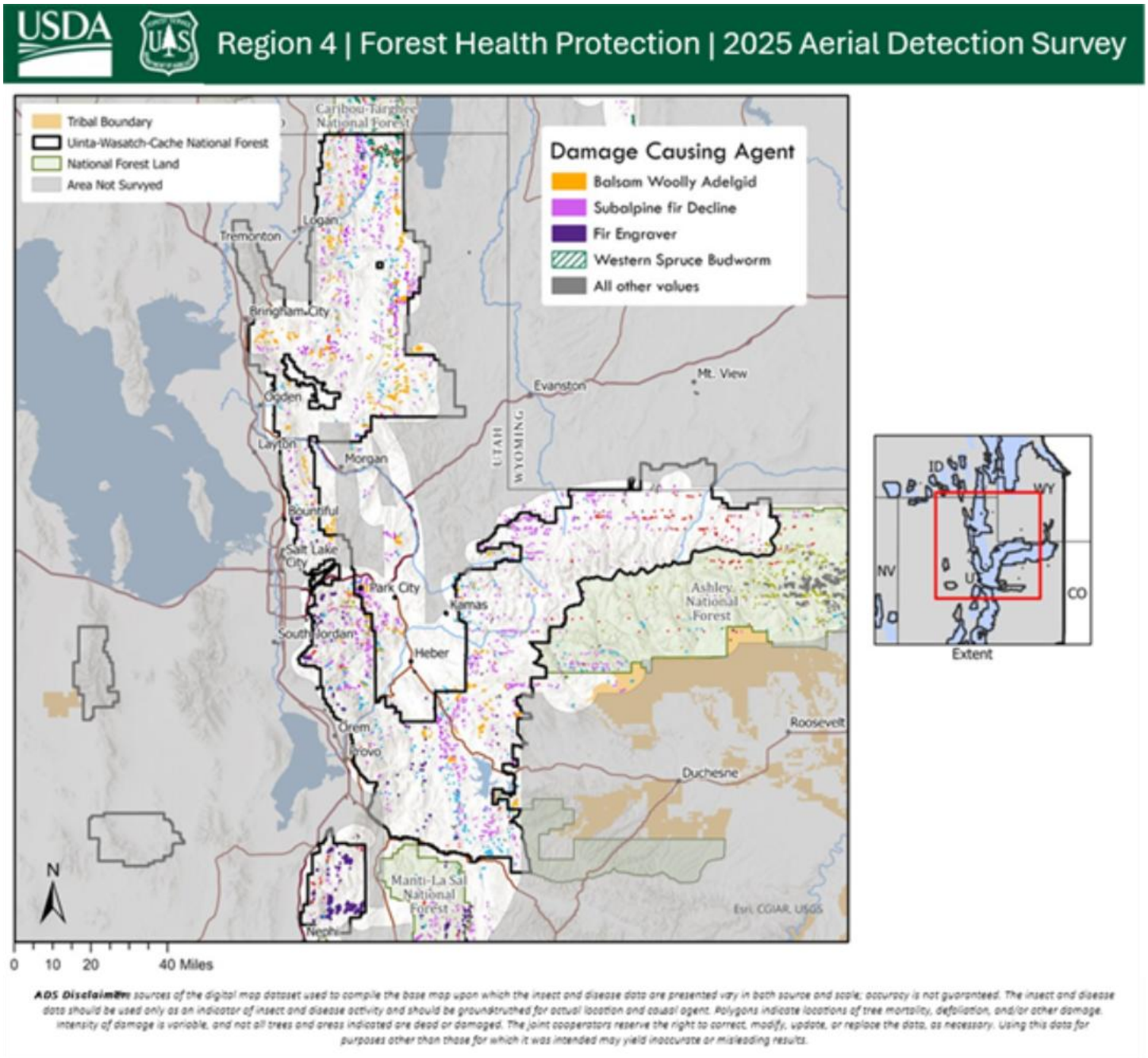


*Figure 2: Aerial Detection Survey map of the Uinta-Wasatch-Cache National Forest for key damage agents. *Excluded from the legend is mountain pine beetle but is indicated in red on the map.*

<u>Monitoring Question #5</u> Fuels Reduction: Are fuels reduction projects protecting property, human health and safety, and reducing the potential for unwanted fire effects (in the Wildland Urban Interface (WUI) and non-WUI)?

Finding: *No changes are needed.*

The Wasatch-Cache National Forest was selected as a Wildfire Crisis Strategy (WCS) landscape in 2022. While all fuels projects are designed to alter fire behavior to meet one or more objectives, including protecting property, human health and safety, being selected as a priority landscape has given renewed emphasis to fuel reduction projects on the forest. In 2024 and 2025, the Uinta-Wasatch-Cache implemented 37,953 acres of fuels reduction (Table 6).

Fuel treatments in general combined with past fire footprints, have been successful at altering fire behavior in a way that reduced unwanted fire effects, increased firefighter safety, and allowed for more fire management options (which makes it easier to protect property and life). When a wildfire burns through a fuel treatment, we assess if the treatment was effective. In the last two years on the Wasatch-Cache, three fires have started in or burned into fuels treatments (Table 2). Fuels treatments have been consistently effective at altering fire behavior, increasing safety for firefighters, increasing suppression opportunities, and contributing to the control and management of a fire. Exceptions to this include times when there are extreme fire weather conditions, enough time has passed that vegetation has regrown, exceeding the "lifespan" of the treatment, or conditions are such that the fire would have remained small regardless of the fuel treatment. We have made a commitment to continually treat past fuels projects to maintain the "lifespan" of treatment effectiveness.

Since being selected a WCS priority landscape, The UWC has been able to get much more accomplished with additional funding and support. Towards the end of 2024 most of the WCS (BIL IRA) funding was exhausted. This is reflected in the large drop of acres accomplished in 2025. If WCS funding was made available, I have no doubt we could continue to exceed target. Along with the WCNF being identified as a priority landscape we simultaneously undertook the effort to finalize maps of Potential Operation Delineations (PODs). This was an all-lands approach, working with state and local governments, to identified potential fire breaks across the landscape. While PODs and the WCS are separate efforts, each supports the other. The increase in acres treated under WCS is re-enforcing POD boundaries, while PODs are helping direct priorities for WCS funded projects. WCS will continue through 2024, and while there is a lot of work still to be done, the impacts are already quantifiable. These two initiatives have the potential to reduce fire effects as well as increase management options during a wildfire.

Indicator #1 Acres of hazardous fuels reduction in WUI and non-WUI.
Data source: Forest Service Activity Tracking System database
Monitoring result: The table below shows that between 2024 and 2025, more treatment was conducted in WUI areas than in non-WUI areas. These numbers are for both Wasatch Cache and Uinta Forest Plans.

Table 6. Total number of acres of fuels treatments implemented on both the Wasatch-Cache and Uinta Planning Area from 2024-2025.

	2024	2025	Total
WUI	19,455	6,197	26,652
Non-WUI	6,412	5,889	12,301
Total Acres	25,867	12,086	37,953

Indicator #2 Fire behavior and opportunities for suppression. Measure when a wildfire enters a fuels treatment that is less than 10 years old. Report every 2 years.

Data source: Fuel Treatment Effectiveness Monitoring database
Monitoring result*:* As shown in the Table 7 below, in 2025, one fire resulted in fire behavior changing due to

vegetation treatments and on three fires, vegetation treatments contributed to the control and/or management of fire.

Table 7. *Fires on the Wasatch-Cache that started in or burned into fuels treatments from 2022-2023.*						
Fire	***Fire Year***	***Treatment***	***Treatment Date***	***Treatment Acres Burned***	***Did fire behavior change as a result of treatment?***	***Did treatment contribute to the control and/or management of fire?***
Rick Springs	2025	N. Zone Aspen Lop Scatter	*7/30/2024*	*26*	*yes*	*yes*

<u>Monitoring Question #6</u> Fire Management: Are natural ignitions being managed to accomplish resource management objectives?

Finding: *No changes are needed.*

Conditions must be favorable to manage fires for resource objectives, many of which are outside of our control (such as weather, available resources, and fire location). Therefore, the percentage of natural ignitions that can be managed for resource objectives can vary significantly from year to year. The goal, however, is to see a long-term trend of natural ignition fires managed to meet resource objectives. However, this year in the Forest Service Chiefs' letter of intent he stated, "Every unplanned ignition on National Forest System lands is managed under a full suppression strategy". We will not actively look to achieve resource benefit through wildfire although we may see benefits of natural ignitions on certain wildfires where conditions allow.

In the last two years, there have been natural ignitions that have accomplished resource management objectives. As we continue to increase fuel reduction efforts on the forest, we increase wildfire management options. As we reduce fuel loading in future wildfire footprints, fire managers have more latitude in their decisions.

In addition to managing wildfires for resource benefit, we hope to see a trend of increasing percentages of acres with resource benefits from natural ignitions. As we continue to reduce the potential for unwanted fire effects, we are hopefully increasing the potential size of these fires, meaning they are allowed to burn naturally as severity and intensity maybe checked through vegetation management efforts.

Indicator #1 Percent of natural ignitions with identified resource management objective.
Data source: Wildland Fire Decision Support System database
Monitoring results: In 2024-2025, 0% of natural ignitions were managed with a resource management objective.

Indicator #2 Percent of natural ignition acres with resource benefit.
Data source: Forest Service Activity Tracking System database, UWC fire perimeter GIS data
Monitoring results: In 2024-2025, 0% of natural ignitions contributed to resource benefit as an objective on the Wasatch-Cache NF.

<u>Monitoring Question #7</u> Rangeland Management: What is the extent of the change of ecological conditions due to invasive species? Do rangeland plant communities have desired species composition and is ground

cover adequate?

Finding: No changes needed. The Forest has been making efforts to control noxious weeds in the planning area but existing populations are spreading, and new populations are constantly discovered. Some areas of the W-C National Forest are more susceptible to infestation, these include high visitor use areas, roadsides, timber sales, fire scars and sections in the wildland urban interface. These areas have seen increasing cover of noxious weeds over time. There are currently noxious species present on the Wasatch-Cache that can invade nearly all upland and riparian habitats, apart from the highest elevation alpine and subalpine zones.

Non-native plants that are considered invasive but not on the noxious weed list, such as non-native annual grasses, are also increasing in cover across the Forest. This can have a long-term impact on ecological condition and desired species composition, primarily in dry meadows and shrublands. Climate change, wildfire, and soil disturbance seem to be the primary drivers of spread, though vectors include vehicles, animals, wind, water, and fire. Increased survey, mapping and monitoring of invasive annual grasses are likely warranted to ensure that desired conditions continue to be met, and ecological conditions remain steady or trend in a positive direction.

Conditions in range allotments and for livestock are considered satisfactory, as ground cover and forage availability are within the prescribed range. Satisfactory condition is defined as meeting desired conditions or trending towards desired condition. Desired condition is defined as the 2003 Forest Plan Standards and Guidelines and having the desired plant communities.

Data sources: Field data and mapping available in the Invasive Species database as reported in Natural Resource Manager FACTS, visual observations, photo points and measurements collected by botany, ecology and range management staff, long-term range monitoring site data, online tools such as the Rangeland Analysis Platform, EDDMapS, and Inhabit (USGS).

Indicator #1 Estimated acres infested with noxious weeds.
Inventories of noxious and invasive species are in progress but incomplete, as populations continue to change over time and treatment of infestations continues to be prioritized over mapping exercises. Table 8 gives treatment acres by Ranger District for districts that fall within the Wasatch-Cache portion of the administrative unit. More acres were treated each year than what are shown below, treatments that were conducted by cooperators and other partners are often reported to the USFS without enough information to be properly entered into the database. Of the 55 species of noxious weeds listed by the State of Utah, it is estimated that approximately 30 have been discovered on the Wasatch-Cache and are currently targeted for treatment.

Table 8. Weed treatment acres on the Wasatch-Cache NF by Ranger District in 2021-2025 as reported by the USFS NRM FACTS database.

Ranger District	***Weed Treatment Acres***				
	2021	***2022***	***2023***	***2024***	***2025***
Salt Lake	*313*	*183*	*68*	*111*	*48.7*
Kamas	*No data*	*960*	*807*	*72*	*0.0*
Evanston-Mtn.View	*103*	*143*	*299*	*455.5*	*77.5*
Ogden	*285*	*14*	*1*	*9.6*	*0.0*
Logan	*396*	*207*	*112*	*384.9*	*283.6*
Totals	*1,097*	*1,507*	*1,287*	*1,032.5*	*409.8*

Rangeland monitoring results for indicator #1:
On the Salt Lake Ranger District, the Stansbury Mountains are considered a high use recreation area and noxious weeds are increasing in many places that are now more easily accessible. These new infestations are aggressively treated with the aim to keep them controlled and small. Hoary cress, houndstongue, field bindweed, squarrose knapweed, and Canada thistle are the most common invasive weeds found in this area. Long-term monitoring studies indicative of vegetative and ground cover conditions are in overall satisfactory condition and noxious weed infestations account for less than 5% of the Stansbury Mountains. On the Kamas and Evanston/Mt. View Ranger Districts, current noxious weeds infestations are being controlled and new noxious weed infestations are found almost on an annual basis. Mirror Lake corridor is a high use recreation area and new noxious weeds infestations are aggressively treated to keep infestations controlled and small and noxious weed infestations account for less than 1% of the Kamas RD. On the Evanston/Mt. View Ranger District, current noxious weeds infestations are decreasing in number and size. Long-term monitoring studies indicative of vegetative and ground cover conditions are in overall satisfactory condition and noxious weed infestations account for less than 1% of the Evanston/Mt. View Ranger District. On the Logan and Ogden Ranger Districts, current noxious weed infestations are typically found along transportation corridors (eg. roads and trails) or recently disturbed areas (e.g. project work, timber sales, and prescribed burns) and are being controlled through partnerships/contracts. New infestations (eg. Canada Thistle, Dyers Woad, Hounds-tongue, Knapweed, Leafy Spurge, Musk Thistle, and White Top) are prioritized for treatment to contain or eradicate these populations. Noxious weed infestations account for approximately 5-8% of the Logan and Ogden Ranger Districts.

The last time weeds were inventoried on the WCNF was in 2015 by USU and based on acres inventoried, the amount of weed infested area for Ogden and Logan Ranger Districts were 5.7 and 8.3 percent and Kamas and Evanston-Mountain View have less than 1% noxious weed cover. Noxious weed infestations are aggressively treated on each District along high use areas such as roads and trails to keep infestations controlled and small. Musk Thistle, Yellow Toadflax, Bull Thistle are the three top invasive weeds found on the Wasatch NF. Despite weed infestations, long-term monitoring studies indicative vegetative and ground cover conditions are in overall satisfactory condition. Satisfactory condition is defined as meeting desired conditions or trending towards desired condition. Desired condition is defined as the 2003 Forest Plan Standards and Guidelines and having the desired plant communities.

Indicator #2 Riparian and upland condition and trend.
Online ecological analysis tools can be used to examine forest-wide ecological trends that inform assumptions on riparian and upland conditions. The distribution and spread of non-native annual grasses such as cheatgrass, cereal rye, jointed goatgrass, and medusahead is one such indicator that can be examined, as these ecological invaders can permanently alter and degrade upland habitats. Other metrics that can be studied include native vegetation distribution and cover. The Rangeland Analysis Platform analysis of 10m satellite imagery was used to generate vegetation cover information, including estimated levels of non-native annual grass invasion for 2018-2025 on the entire Uinta-Wasatch-Cache National Forest.

shows a relatively stable trend in perennial forb and grass, shrub, sagebrush, tree and invasive annual grass cover forest-wide over the last 8 years, with slight variability by year. Despite steady trends in vegetation cover given by the satellite imagery analysis, anecdotal observations and perceptions are that non-native annual grasses are increasing in cover in recent years, most notably after fire. In response, the Forest Service initiated a more robust non-native annual grass mapping program with Weber State University in 2025, the results from which will be forthcoming in future monitoring reports.

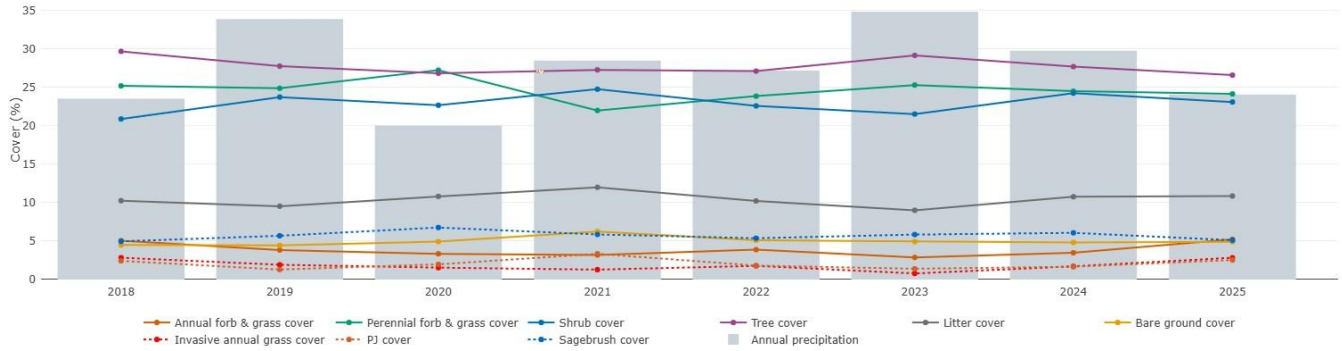


Figure 3: Vegetation cover percentage by type generated by analyzing 10-meter satellite imagery from 2018 to 2025 using the Range Analysis Platform. Vegetation cover estimates are grouped into annual and perennial native herbaceous vegetation, non-native annual grasses, Pinyon-Juniper (PJ), shrub, sagebrush, tree, litter and bare ground. Annual precipitation is also shown as gray bars. Overall vegetation trend appears stable in all categories with slight variability by year.

Rangeland monitoring results for indicator #2:

In the Kamas Valley and Mirror Lake corridor of the Wasatch NF approximately 12 long-term monitoring studies were established or re-read on the cattle allotments between 2024 and 2025. There are only three allotments on the Heber-Kamas District located on the Wasatch NF which include Curry, Kamas Valley, and Weber River. The vegetative communities associated with these allotments are overall in satisfactory condition. On the Bear River and Wasatch Ranges, approximately 41 long-term monitoring studies were established or re-read on multiple cattle and sheep allotments between 2024 and 2025. The vegetative communities associated with these allotments are also in overall in satisfactory condition. On the North Slope of the Uinta Mountains over 500 long-term monitoring studies were established or re-read on multiple cattle and sheep allotments between 2024 and 2025. Some of these allotments include East Fork-Smiths Fork, Gilbert Creek, Gold Hill, Luke Lym, Middle Fork-Blacks Fork, Mill Creek, Poison Mountain, Red Castle, Red Mountain, Stillwater, West Fork-Bear River and others. The vegetative communities associated with the allotments were similarly found to be in overall satisfactory condition. Satisfactory condition is defined as meeting desired conditions or trending towards desired condition. Desired condition is defined as the 2003 Forest Plan Standards and Guidelines and having the desired plant communities. Trend and condition were and are determined from those studies that have been revisited at least once following establishment. Condition without trend is indicated from some studies with a single visit. Several monitoring methods are or have been used to gather data for condition and trend analysis. These include but are not limited to repeat photography (**Error! Reference source not found.**), photo plot, line intercept, line point intercept, vegetation ocular macroplot, nested frequency, and greenline. Older study types that provide background information but are not currently used include site analysis and Parker 3-Step. These methods are used to determine ground cover, plant community composition, forage utilization, riparian and stream bank conditions, water quality, compliance with grazing management practices or other grazing permit and/or annual operating instructions, and any other pertinent desired condition parameters.





Figure 4: Example of repeat photography, as known as photo-point monitoring, of riparian conditions in September of 2025. These 2 photos were taken on the Evanston-Mountain View district of a monitoring location on Kabell Creek. Comparison of these photos with previous years shows an increase in willow cover. Photo credits A. Cameron.

Monitoring results: On the allotments monitored on the WCNF, the vegetative communities associated with the allotments are overall in satisfactory condition. No changes needed.

<u>Monitoring Question #8</u> Are Forest management activities and natural events affecting the ecological conditions indicated by the status of Focal species?

Findings: *No changes are needed. Management activities over the past 20 years were unlikely to cause significant population level impacts to goshawk reproductive activities and success rates. Although trends in fish populations vary by drainage, no changes are needed since the reasons for downward trends are from natural events or from stocking decisions not from issues with management direction.*

Indicator #1 Active Goshawk territories.
Data source: 2024-2025 Goshawk survey results of monitoring a subset of the known goshawk nesting territories and comparison to goshawk inventories from 2003. Surveys of territories are based on protocols for the Uinta-Wasatch-Cache National Forest (UWCNF) that have been adapted from the Northern Goshawk Inventory and Monitoring Technical Guide (Woodbridge & Hargis, Northern goshawk inventory and monitoring technical guide, 2006). Methods were updated in 2025 to incorporate a random sample of known territories, rather than repeated visits to known occupied territories. The updated sampling methodology provides a representative sample across the forest, and is scalable with staffing availability. There were significant impacts to field operations due to DOGE staff cuts and other administrative changes in the federal government.

Monitoring results: For 2024, of 58 identified goshawk territories on the WCNF 46 were monitored. Of the monitored territories 19 were occupied (41%). For 2025, of 84 identified goshawk territories on the WCNF 33 were monitored. Of the monitored territories 12 were occupied (36%). Percent occupancy of monitored territories at 41% and 36% is within the range observed on the forest and is similar to occupancy rates seen in the previous two-year monitoring period. However, numbers are not directly comparable due to multiple methodology changes over the history of goshawk monitoring on the forest. The increase in number of documented territories represents inclusion of territories previously eliminated from the sample pool in the last 20 where conditions may have changed to improve habitat

quality and warrant reevaluation and areas with suitable habitat delineated by forest biologists.

Number of active nests is at the low end of previously document variation, however monitoring focused on evaluating occupancy rates of territories, rather than returning to known occupied nests. Nest success (occupied nests with at least one chick fledging) was 54% in 2024 based on 13 active nests, and 80% in 2025 based on 5 active nests.

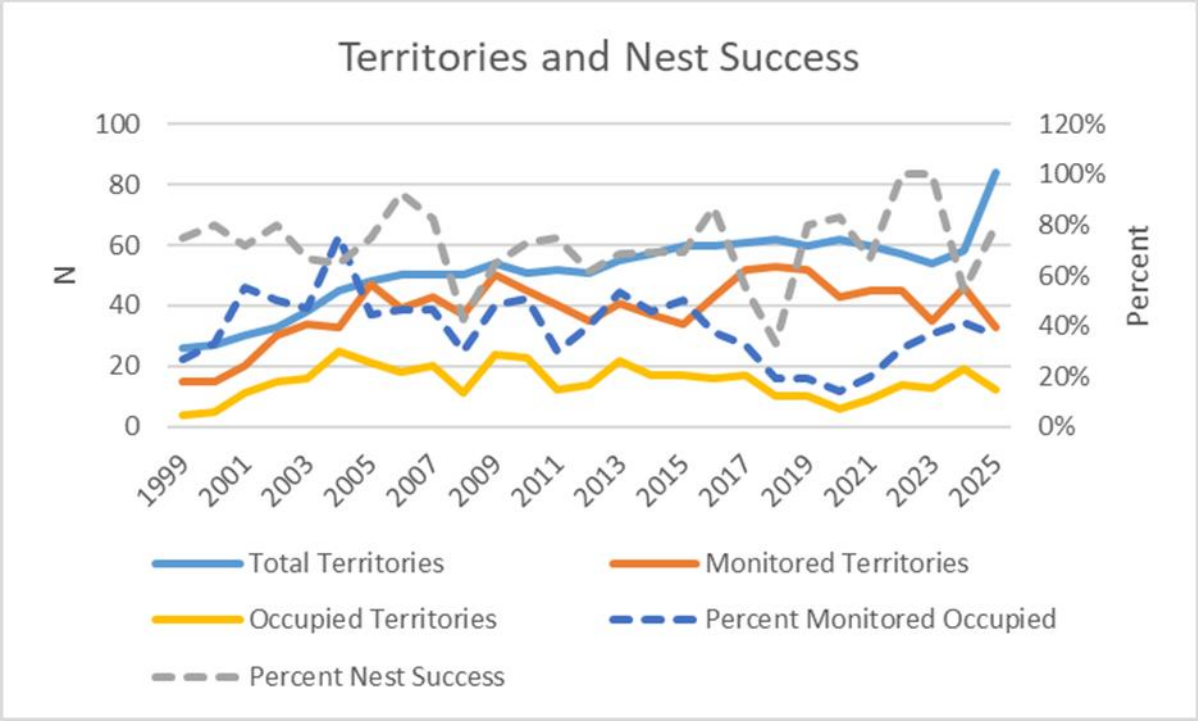


Figure 5 Territories and Nest Success: Documented territories, monitored territories, occupied territories, percent of monitored territories occupied and percent nest success on the Wasatch-Cache Planning Area between 1999 and 2025

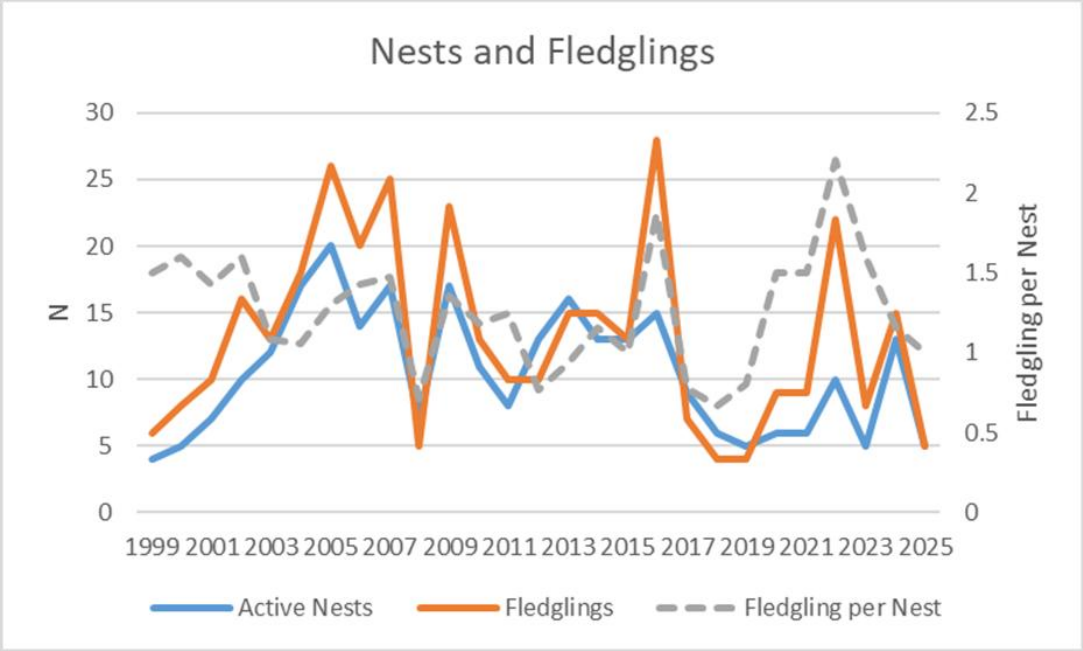


Figure 6 Nests and Fledglings: Active nests, Fledglings, and Fledglings per Nest on the Wasatch-Cache Planning Area between 1999 and 2025

Management activities over the past 20 years are not clearly linked to population level impacts to goshawk reproductive activities and success rates. Management activities implemented on the Forest are within plan requirements, generally resulting in project design with minimal negative effects to goshawk populations. Changes in environmental conditions, forest changes due to beetle kill and lack regeneration and younger age class forests likely are a larger driver of goshawk populations than current active management activities.

In recent years, the Uinta-Wasatch-Cache National Forest, especially the Evanston-Mountain View Ranger District, has seen high tree mortality due to mountain pine and spruce beetle infestations reaching epidemic levels. Beetle kill caused substantial mortality to the Forest's coniferous tree species including 80-90% mortality in north slope Lodgepole pine (Pinus contorta) and significant morality in Engelmann spruce (Picea engelmannii). This is a continuation of an east to west infestation of mountain pine beetle and spruce bark beetle beginning in the early 2000s. By 2007 the mountain pine beetle infestation was peaking on the west side of the EMVRD followed by peak infestations on the east side of the EMVRD during 2008-2009. Spruce bark beetle has moved west-to-east more slowly, with some higher elevation spruce bark beetle infestations on the east side peaking in recent years. Widespread forest mortality is a likely causal factor in downward trends of goshawk breeding activities and success in the planning area.

Goshawks prefer to nest in mature, large diameter trees in closed canopy forests. The dead lodgepole trees no longer provide a closed canopy; therefore, this open canopy may be causing goshawks not to nest in beetle- killed areas and shifting nesting areas and nesting trees to other species. More consistent and long-term field data is needed to determine if this change will continue in the future, but a shift to an alternative tree species is logical since goshawks use mature trees for nest building and live, mature lodgepoles are less abundant than they once were. Goshawks hunt primarily in mature forest. As the area of mature forests decrease due to beetle kills, goshawks are required to hunt over larger areas which increase intra-specific competitions among goshawks. Increased intra-specific competitions could

result in decreased number of nesting goshawks or in decreased reproductive successes.

The Intermountain Bird Observatory (IBO) has found that goshawks metrics have been decreasing region-wide for several years (see Annual Variation of Northern Goshawk Breeding and Productivity in the Intermountain West, 2020 Update, Miller et al.). After a discussion with a few FS Intermountain Region biologists, the IBO requested 2017- 2020 goshawk data from FS Intermountain Region forests to determine if broader patterns are apparent, inform management actions, and help drive new science priorities for goshawks. The IBO concluded that the region is inconsistent in their monitoring approaches, protocol, and level of monitoring; therefore, limits the ability for region-wide quantitative comparisons. The IBO used a qualitative comparison approach and reported that no forest in the region had increasing population levels, and more than half of the forests are reporting declines in goshawk breeding. The managers for many forests in the region are concerned about a decreased aspen viability, and the IBO suggested a comprehensive look into the goshawk-aspen system. In the case of the Uinta-Wasatch-Cache NF, the decline is believed to be the result of forest structural changes related to pine beetles. IBO also suggested a region wide program to collect high quality genetic samples to evaluate inbreeding depression and broad time-scale integration of birds across the region since there are no evidence for whether new breeding goshawks are recruited from within or outside of the region (Miller et al. 2020).

Indicator #2 Cutthroat Trout population estimates.

Data source: *During 2024 and 2025, the Uinta-Wasatch-Cache National Forest conducted fish surveys on streams throughout the Wasatch-Cache portion of the Forest. These surveys repeated surveys conducted in previous years to monitor Bonneville cutthroat trout (BCT), Colorado River cutthroat trout (CRCT), and Forest management activities. The data collected during earlier surveys was compared with data collected in 2024 and 2025. In 2025, we were unable to survey some streams due to low flows and high-water temperatures. These streams will be sampled in 2026.*

Monitoring results: Throughout these drainages, habitat conditions remain good, and in most instances have improved. In some areas of the Forest (Evanston/Mt. View and Heber/Kamas Ranger Districts) conifer killed by beetles have started falling into area streams. This increase in large-woody debris has increased stream complexity and improved fish habitat. Following increased precipitation in 2022 – 2023, drought conditions have returned for the last two years. The decrease in stream flows has negatively impacted fish populations in several streams. Brook trout populations continue to expand in several drainages across the Forest and are the biggest threat to cutthroat trout in these areas. Conversations with Utah Division of Wildlife Resources have begun to address this issue and decide where cutthroat strongholds should be protected.

Table 9. Survey data for fish species monitored in 2024-2025.

Subwatershed and 6th Field HUC Number	*Stream*	*Survey Site*	*Fish Species*	*Year Sampled*	*Species per mile*	*Biomass (lb/acre)*	*Ave. Condition Index*	*Comments*	*Reach Trend*
Middle Bear									
High Creek 160102020506	*High Creek*	*107*	*BNT*	*2004*	*805*	*36*	*0.98*		*Stable*
				2015	*652*	*63*	*1.12*		
				2025	*703*	*87*	*1.26*		
			RBT	*2004*	*302*	*29*	*1.09*		*Down*

				2015	177	26	1.1		
				2025	32	2	0.85		
Summit Creek 160102020701	*Summit Creek*	*106*	*BNT*	*2004*	*0*	*0*	*N/A*		*Up*
				2015	*48*	*8*	*1.2*		
				2025	*134*	*17*	*1.14*		
			RBT	*2004*	*437*	*42*	*1.06*		*Up*
				2015	*765*	*48*	*1.14*		
				2025	*846*	*51*	*1.16*		
Right Fork Logan Cyn 160102030305	*Right Hand Fork*	*131*	*BNT*	*2004*	*1836*	*175*	*1.0*	*Brown trout were removed from RHF in 2009*	*Down*
				2015	*0*	*0*	*N/A*		
				2025	*0*	*0*	*N/A*		
			BCT	*2004*	*16*	*3*	*0.98*	*BCT reintroduced to RHF in 2009*	*Up*
				2015	*446*	*78*	*1.28*		
				2025	*1183*	*72*	*1.0*		
Tony Grove Creek – Logan River 160102030304	*Tony Grove Creek*	*144*	*BCT*	*2004*	*0*	*0*	*N/A*	*Spawning/Rearing stream. Lots of YOY BCT*	*Up*
				2015	*0*	*0*	*N/A*		
				2025	*80*	*1*	*1.11*		
	White Pine Creek	*146*	*BCT*	*2004*	*131*	*11*	*0.98*	*Spawning/Rearing stream. Lots of YOY BCT*	*Stable*
				2015	*32*	*3*	*1.29*		
				2025	*145*	*3*	*0.97*		
	Little Bear Creek	*088*	*BNT*	*2004*	*0*	*0*	*N/A*		*Up*
				2015	*0*	*0*	*N/A*		
				2025	*141*	*7*	*1.08*		
			BCT	*2004*	*17*	*1*	*1.04*		*Stable*
				2015	*97*	*5*	*1.07*		
				2025	*78*	*7*	*1.11*		
	Bunchgrass Creek	*90*	*BCT*	*2004*	*0*	*0*	*N/A*	*Culvert under HWY 89 is a barrier. Temporary fix with baffles.*	*Down*
				2015	*113*	*5*	*1.14*		
				2025	*0*	*0*	*N/A*		
Tony Grove Creek – Logan River 160102030304	*Spawn Creek*	*381*	*EBT*	*2004*	*113*	*12*	*0.99*		*Down*
				2025	*33*	*4*	*1.23*		
			BCT	*2004*	*209*	*52*	*0.95*		*Up*
				2025	*276*	*23*	*1.09*		
Smiths Fork									
East Fork Smiths Fork 140401070207	*East Fork Smiths*	*427*	*EBT*	*2005*	*387*	*18*	*1.00*		*Up*
				2014	*352*	*22*	*0.99*		
				2024	*902*	*26*	*1.02*		
			RBT	*2005*	*16*	*3*	*0.90*	*RBT population*	*Stable*

				2014	0	0	N/A	dependent on stocking	
				2024	16	2	1.05		
			MWF	2005	278	13	0.84		Stable
				2014	77	6	0.88		
				2024	147	13	0.97		
Blacks Fork									
West Fork Blacks 140401070301	West Fork Blacks Fork (Upper)	211	EBT	2005	272	31	1.16		Up
				2014	1129	42	1.08		
				2024	1903	68	1.03		
			CRCT	2005	447	36	1.02		Down
				2014	68	2	0.93		
				2024	64	3	0.90		
			Tiger Trout	2005	0	0	N/A	Tiger trout population dependent on stocking	Stable
				2014	17	3	0.88		
				2024	0	0	N/A		
	West Fork Blacks (lower)	213	EBT	2005	418	18	1.02		Up
				2024	930	23	1.00		
			CRCT	2005	16	1	0.78		Stable
				2024	0	0	N/A		
			MWF	2005	0	0	N/A		Stable
				2024	16	1	0.89		
	Little West Fork Blacks	012	CRCT	2005	719	63	0.88	CRCT taken from this stream to develop a brood source.	Up
				2024	139	8	0.92		
	Brush Creek	421	EBT	2005	463	30	1.02		Up
				2014	821	31	1.06		
				2024	1444	28	1.12		
				2005	0	0	N/A		Up
				2014	16	1	0.95		
				2024	32	1	0.86		
	Middle Fork Blacks Fork (Lower)	404	EBT	2005	257	5	0.96		Stable
				2014	930	15	1.01		
				2024	302	12	1.50		
			CRCT	2005	355	6	0.98		Down
				2014	201	4	0.98		
				2024	0	0	N/A		
			MWF	2005	257	25	0.96		Down
				2014	16	1	0.89		
				2025	32	2	0.94		
	Middle Fork		EBT	1994	48	5	1.12		Up

	Blacks Fork (Upper)			*2024*	*915*	*44*	*1.11*		
			CRCT	*1994*	*163*	*26*	*0.97*		*Down*
				2024	*134*	*5*	*0.96*		

Weber River									
Smith and Moorehouse 160201010205	*Smith Moorehouse (Lower)*	*93*	*EBT*	*2009*	*72*	*2*	*1.16*		*Up*
				2018	*64*	*1*	*0.89*		
				2024	*172*	*4*	*1.07*		
			BCT	*2009*	*312*	*10*	*1.02*		*Up*
				2018	*402*	*16*	*0.95*		
				2024	*501*	*16*	*.96*		
	Smith Moorehouse (Upper)	*143*	*EBT*	*2018*	*64*	*5*	*1.14*		*Up*
				2024	*272*	*10*	*1.18*		
			BCT	*2018*	*48*	*4*	*1.02*		*Down*
				2024	*0*	*0*	*N/A*		
	Box Canyon	*94*	*BCT*	*2009*	*342*	*15*	*1.03*	*Fish populations recovering from the Box Canyon Fire in 2017*	*Up*
				2018	*230*	*8*	*1.02*		
				2024	*674*	*32*	*1.05*		
South Fork Weber River 160201010204	*South Fork Weber (Upper)*	*96*	*EBT*	*2009*	*13*	*1*	*1.13*	*No weights collected in 2024*	*Up*
				2010	*32*	*3*	*1.14*		
				2024	*69*	*-*	*-*		
			BCT	*2009*	*337*	*88*	*1.07*	*No weights collected in 2024*	*Down*
				2010	*32*	*2*	*1.00*		
				2024	*46*	*-*	*-*		
	South Fork Weber (Lower)	*97*	*EBT*	*2009*	*1593*	*72*	*1.06*		*Down*
				2010	*1143*	*66*	*0.93*		
				2024	*554*	*46*	*1.12*		
Dry Fork – Weber River 160201010201	*Middle Fork Weber*	*319*	*EBT*	*2001*	*16*	*1*	*0.88*		*Up*
				2024	*302*	*15*	*1.09*		
			BCT	*2001*	*129*	*5*	*0.99*		*Stable*
				2024	*145*	*5*	*1.06*		
			BCT/RBT	*2001*	*16*	*1*	*1.11*		*Down*
				2024	*0*	*0*	*N/A*		
	Dry Fork	*127*	*EBT*	*2005*	*219*	*5*	*1.09*		*Down*
				2024	*0*	*0*	*N/A*		
			BCT	*2005*	*264*	*15*	*1.08*	**No fish detected*	*Down*
				2024	*0*	*0*	*N/A*		

na = not applicable
nd = no data

Monitoring Question #9 Is there a change in species distribution across the Forest?

Finding: *No changes are needed.*

Indicator #1 Change from cold water to warm water species, change in terrestrial vegetation and species distribution.
Data source: Field observations and monitoring of aquatic habitat and fish population surveys
Monitoring results: From the results of fish population and habitat surveys, there is no indication of a change from cold to warm water species. There is no indication of a change in terrestrial species distribution.

Monitoring Question #10 Are Forest management activities and/or natural events affecting ecological conditions that contribute to the recovery of federally listed threatened and endangered species, conserve proposed and candidate species, and maintain a viable population of each species of concern?

Finding: *No changes are needed. For conditions indicated by goshawk and fish surveys and for federally listed threatened and endangered species, conserve proposed and candidate species, management activities over the past 20 years were unlikely to cause significant population level impacts. For fisheries, most monitored sites indicate a stable to upward trend and where downward trends occur, they are from natural events or from fish stocking decisions not from issues with Forest management direction.*

Indicator #1 Mature Forest conditions and population estimates (e.g, Northern goshawk). *See Monitoring Question # 8, Indicator #1.*

Indicator #2 Aquatic and riparian condition: In-stream channel conditions and population estimates (e.g, Bonneville cutthroat trout and Colorado River cutthroat trout). Viable populations of both Bonneville cutthroat trout and Colorado River Cutthroat trout continue to exist on the Forest. *For fish abundance and condition surveys see Monitoring Question # 8, Indicator #2.*

Indicator #3 Habitat that contains other federally listed threatened and endangered species, conserve proposed and candidate species – Documentation of alterations in habitat due to management actions and natural events.
Data source: Forest Service information in FACTS database on timber treatments, prescribed fire, wildfire, Burned Area Emergency Response (BAER) reports, and aquatic habitat improvement projects.
Monitoring results: Regarding Northern Goshawk, management actions may have modified some habitat for these species, these modifications are likely to restore a more diverse age structure and may serve to maintain goshawk populations long term. Fire (Bulah, other smaller fires and RxB) have impacted individual territories, but likely improved habitat at a forest scale and provided more diverse and resilient forest structure. On the Evanston-Mt. View District, to improve Bonneville trout populations, aquatic habitat has been improved through process-based restoration. This is a holistic approach aimed at restoring degraded watersheds by reestablishing natural processes such as sediment transport, nutrient cycling, and fire resilience. This includes constructing beaver dam analogs, post assisted log structures, and adding large woody debris to streams in the Upper Bear. Approximately 50 miles of stream has been improved over the last two years. Similar work has been completed on two miles of Saddle Creek in the Logan Ranger District.

Monitoring Question #11 Are Forest management activities and natural events affecting the ecological conditions of terrestrial and aquatic ecosystems?

Finding: *No changes are needed; In 2024 through 2025, the main ecological change that has occurred is from 818 acres of commercial timber sales and 17,373 acres of fuel treatments (Heber RD and Kamas RD are combined). These treatments are primarily the result of management actions taken to move toward desired future conditions. These activities account for a total 18,191 acres that were treated on the WCNF or less than 1% of the 2,314,498 acres encompassed by the forest boundary. Fuels treatments consist of thinning, Treatments consisted of burning of piled material and broadcast burning. The purpose of these treatments is to reduce fire sizes and intensities and to create diversity in forest age classes on the Forest. Most of these activities affected the terrestrial ecosystem by setting the seral stage of the vegetation to an earlier stage. Aquatic ecosystems will continue to improve due to improved fish passage and habitat work in the Upper Bear over the next three years.*

Data source for all indicators: See Monitoring Question # 4, Indicator #1, Monitoring Question #5, Indicators #2, Monitoring Question # 6, Indicators #1 and #2, Monitoring Question # 7, Indicators #1and #2, Monitoring Question # 8, Indicators #1 and #2. Water quality data used for this assessment are 303(d) listed water bodies from Utah Division of Water Quality 2024 Integrated Report and the 2022/2024 State of Wyoming Integrated 305(b) and 303(d) Report.

Indicator #1 Aquatic habitat conditions.

Monitoring results: For fish abundance and condition surveys see Monitoring Question # 8, Indicator #2. Water quality may indicate natural and/ or man-caused conditions that affect aquatic habitat. The State of Utah Integrated Report analyzes water quality data to determine if assessed waterbodies support their beneficial uses. The Utah 2024 Integrated Report is the current water quality condition report for the State. Several streams and lakes on the Wasatch-Cache NF are classified as not supporting its beneficial use and are presented in the table below. All these listings are rated as low priority in the State's assessment. In the 2024 303(d) list, six analysis units on the WCNF had parameters delisted from the previous assessment. Based on the current assessment, all streams on the WCNF in Wyoming are meeting their beneficial uses for the streams that have been assessed.

Table 10. 303(d) listed water bodies from Utah Division of Water Quality 2024 Integrated Report and Wyoming's 2022/2024 Integrated 305(b) and 303(d) Report.

Analysis Unit ID	Analysis Unit Description	Parameter
UT14040107-001_00	Blacks Fork	Aluminum (3A), Zinc (3A)
UT14040107-005_00	East Fork Smiths Fork	Aluminum (3A)
UT16010101-005_00	Otter Creek	E. coli (2B)
UT16010101-007_00	Big Creek	E. coli (2B), pH (2B, 3A, 4), Temperature (3A)
UT16010101-010_00	Birch Creek - Bear	Macroinvertebrates (3A)
UT16010101-016_00	Saleratus Creek	Dissolved Oxygen (3A), Temperature (3A)
UT16010101-021_00	Bear River-6	Aluminum (3A)
UT16010101-025_00	Stillwater Fork	pH (2B, 3A, 4)
UT16010101-028_00	Yellow Creek	Macroinvertebrates (3A)
UT16010201-001_00	Bear Lake West	Macroinvertebrates (3A)
UT16010201-002_00	Laketown	E. coli (2B), Macroinvertebrates (3A), Temperature (3A)
UT16010202-009_00	Spring Creek Lewiston	Dissolved Oxygen (3B), Phosphorus (3B)
UT16010203-005_00	Logan River-1	E. coli (2B), Phosphorus (3A), Dissolved Oxygen (3A), Temperature (3A)

UT16010203-006_00	Logan River-2	pH (2B, 3A, 3D, 4)
UT16010203-013_00	South Fork Little Bear	Temperature (3A)
UT16010203-020_00	Blacksmith Fork-1	E. coli (2B)
UT16010204-001_00	Box Elder Creek-1	E. coli (2B), Dissolved Oxygen (3C)
UT16010204-002_00	Bear River Lower-East	Dissolved Oxygen (3B, 3D), Total Dissolved Solids (4)
UT16010204-007_01	Middle Bear East-1	E. coli (2B)
UT16010204-011_02	Mantua Reservoir Tributaries-2	E. coli (2B), pH (2B, 3B, 3D, 4)
UT16020101-002_00	Francis Creek	E. coli (1C, 2B), Temperature (3A)
UT16020101-011_00	South Fork Chalk Creek	Phosphorus (3A), Sediment (3A), Temperature (3A)
UT16020101-016_00	Chalk Creek-4	Phosphorus (3A), Sediment (3A), Dissolved Oxygen (3A)
UT16020101-026_00	Smith Morehouse River-1	Copper (3A)
UT16020101-028_00	Weber River-12	Aluminum (3A), Copper (3A), Lead (3A)
UT16020101-030_00	Beaver Creek2-Kamas	Aluminum (3A), Copper (3A)
UT16020102-006_00	North Fork Ogden River	Dissolved Oxygen (3A)
UT16020102-009_00	Middle Fork Ogden River	Dissolved Oxygen (3A)
UT16020102-010_00	South Fork Ogden River-1	Eutrophication (3A)
UT16020102-017_01	Weber Lower Tributaries-1-1	Dissolved Oxygen (3A), Temperature (3A)
UT16020102-023_00	Hardscrabble Creek	Temperature (3A)
UT16020102-026_01	East Canyon Creek-2-1	Phosphorus (3A), Dissolved Oxygen (3A), Temperature (3A)
UT16020102-026_02	Murnin Creek	Phosphorus (3A), Dissolved Oxygen (3A), Temperature (3A), Total Dissolved Solids (4)
UT16020102-026_03	Toll Canyon	Phosphorus (3A), Temperature (3A), Total Dissolved Solids (4)
UT16020102-027_00	Kimball Creek	Arsenic (1C)
UT16020102-030_00	North Fork Kays Creek	Copper (3A)
UT16020102-032_01	South Fork Kays Creek	pH (1C, 2B, 3A, 4), Copper (3A)
UT16020102-032_02	Middle Fork Kays Creek	Copper (3A)
UT16020102-033_00	Snow Creek	E. coli (2B), pH (2B, 3C, 4), Copper (3C)
UT16020102-036_00	Baer Creek-3	Aluminum (3A), Copper (3A)
UT16020102-037_00	Shepard Creek	Copper (3A), Dissolved Oxygen (3A)
UT16020102-038_00	Farmington Creek-2	pH (1C, 2B, 3A, 4), Aluminum (3A), Copper (3A)
UT16020102-039_00	Farmington Creek-1	E. coli (2B), pH (2B, 3B, 4), Aluminum (3B), Copper (3B), Dissolved Oxygen (3B)
UT16020102-040_00	Steed Creek	pH (1C, 2B, 3A, 4), Aluminum (3A)
UT16020102-041_00	Davis Creek	Copper (3A)
UT16020102-042_00	Ricks Creek	Copper (3A)
UT16020102-043_00	Barnard Creek	E. coli (2B), Copper (3A)
UT16020102-044_02	Centerville Canyon	Copper (3A)
UT16020102-047_00	Barton Creek	pH (2B, 3A, 4), Aluminum (3A)
UT16020102-049_00	Mill Creek2-Davis	Copper (3A)

UT16020102-052_00	Rudd Creek	pH (2B, 3A, 4), Copper (3A)
UT16020102-055_00	Weber Lower Tributaries-5	E. coli (1C, 2B)
UT16020203-006_01	Provo River-6-1	Aluminum (3A)
UT16020203-006_02	Provo River-6-2	Aluminum (3A), Zinc (3A)
UT16020203-006_03	Provo River-6-3	pH (1C, 2B, 3A), Aluminum (3A), Copper (3A)
UT16020204-009_00	City Creek-1	E. coli (2B)
UT16020204-012_00	Emigration Creek	E. coli (2B)
UT16020204-013_00	Parleys Canyon Creek-2	E. coli (1C, 2B), Cadmium (3A)
UT16020204-019_00	Big Cottonwood Creek-1	E. coli (2B), Macroinvertebrates (3A), Temperature (3A)
UT16020204-020_00	Big Cottonwood Creek-2	E. coli (1C, 2B), Cadmium (3A), Copper (3A)
UT16020204-022_00	Little Cottonwood Creek-2	pH (1C, 2B, 3A), Cadmium (3A), Copper (3A), Zinc (3A)
UT16020204-025_00	Parleys Canyon Creek-1	E. coli (2B), Macroinvertebrates (3A), Dissolved Oxygen (3A)
UT16020204-033_00	Emigration Creek Lower	E. coli (2B)
UT16020204-035_00	Red Butte Creek Lower	E. coli (2B), Macroinvertebrates (2B)
UT16020304-001_00	Vernon Creek	pH (2B, 3A, 4)
UT16020304-002_00	Faust Creek	Temperature (3A)
UT-L-14040107-004_00	Bridger Lake	Dissolved Oxygen (3A)
UT-L-14040107-005_00	Lyman Lake	Dissolved Oxygen (3A)
UT-L-14040107-006_00	China Lake	Dissolved Oxygen (3A), Temperature (3A)
UT-L-14060003-293_00	Butterfly Lake	Dissolved Oxygen (3A), pH (3A)
UT-L-16010203-012_00	Tony Grove Lake	Dissolved Oxygen (3A), pH (3A), Temperature (3A)
UT-L-16010204-033_00	Mantua Reservoir	Dissolved Oxygen (3A), Phosphorus (3A), Harmful Algal Blooms (2B), Temperature (3A)
UT-L-16020102-014_00	Pineview Reservoir	E. coli (2A), Harmful Algal Blooms (2A), Dissolved Oxygen (3A), pH (3A), Phosphorus (3A), Temperature (3A)
UT-L-16020203-002_00	Trial Lake	pH (3A)
Black – Not Supporting, Carry over from previous 2022 assessment.		
Red – Not Supporting, New listing.		

Table 11. Utah Division of Water Quality 303(d) water bodies that were delisted in the 2024 Integrated Report.

Analysis Unit ID	Analysis Unit Description	Parameter
UT14040107-005_00	East Fork Smiths Fork	2024 IR: Zinc
UT16020204-013_00	Parleys Canyon Creek-2	2024 IR: E. coli (Approved TMDL)
UT16020204-019_00	Big Cottonwood Creek-1	2024 IR: E. coli (Approved TMDL)
UT16020204-025_00	Parleys Canyon Creek-1	2024 IR: E. coli (Approved TMDL)
UT16020204-033_00	Emigration Creek Lower	2024 IR: E. coli (Approved TMDL)
UT16020204-035_00	Red Butte Creek Lower	2024 IR: Dissolved Oxygen, E. coli (Approved TMDL)

Indicator #2 Riparian ecosystem conditions.

Monitoring results: Changes to riparian ecosystems have occurred after the 2024 and 2025 Fire Seasons. There were 3 fires during this period that required a Burned Area Emergency Response assessment. The Yellow Lake Fire burned across both the UNF and WCNF in 2024. However, on the WCNF side of the fire, there were minimal impacts to riparian ecosystems. In 2025 there were two fires on the WCNF, Willard Peak and Beulah. Willard Peak had minimal impacts on riparian areas, as there were only ephemeral channels in the burn perimeter. The Beulah Fire took place in the High Uintas Wilderness Area and contained many wetlands and perennial streams. Some debris flows were expected in this riparian area due to sedimentation from burned hillslopes. Monitoring of post-fire conditions has not taken place yet. Overall, little change has occurred to riparian areas of the Wasatch-Cache Planning Area and most management activities have avoided impacts to these areas.

Indicator #3 Forested Terrestrial ecosystem conditions.
Monitoring results: In 2024-2025, 393 acres of commercial timber sales were treated. Few impacts to soils occurred on the WCNF from wildfire; the main fire was the Beulah Fire in 2025 (5,719 acres) on the Evanston-Mountain View District.

Indicator #4 Non-forested terrestrial ecosystem conditions. *See Monitoring Question #7, Indicator #2*

<u>Monitoring Question #12</u> Are Forest management activities and natural events affecting watershed conditions?

Finding: No changes are needed to Forest Plan. The Uinta-Wasatch-Cache National Forest is working cooperatively to collect water samples and to provide information to the Utah Division of Water Quality on possible causes of water quality impairment. No lichen monitoring data has been generated since 2016-2017. The next evaluation and reporting for lichen is scheduled in 2026 when another round of lichen monitoring should be complete. Overall vegetation and soil indicators meet forest plan standards and guidelines and were comparable between ungrazed and grazed conditions at the pastures, suggesting grazing has had minimal impact on soil protection and resistance to erosion at measured sites. Thus, current range/grazing activities are within WC NF FP guidelines and standards.

Indicator #1 Aquatic Habitat conditions.
Data source: See Monitoring Question #8, Indicator #2 and Monitoring Question #11, Indicator #1.
Monitoring results: See Monitoring Question #8, Indicator #2 and Monitoring Question #11, Indicator #1.

Indicator #2 Air Quality - Trends of lichen biomonitoring sites.
Data source: The WCNF has 12 lichen monitoring sites. Nine sites are established in the High Uintas Wilderness Area, one site in the Lone Peak Wilderness Area, and two in the Deseret Peak Wilderness Area. A report on lichen biomonitoring was last completed in 2013 by Brigham Young University and the results of the evaluation were presented in the 2016-2017 Forest Plan Monitoring Evaluation report. During the summer and fall of 2025, two lichen monitoring sites (DeseretPk1 & DeseretPk2) on the WCNF were recollected for species diversity and elemental analysis. However, the samples have not been analyzed yet. The data collected in the 2025 samples will be reported in the 2026-2027 Forest Plan Monitoring Evaluation report, which fits with the 10 year lichen monitoring interval following the 2016-2017 Forest Plan Monitoring Evaluation report.

Monitoring results: No new data is available for evaluation for the 2024-2025 Forest Plan Monitoring Evaluation report.

Indicator #3 Changes in soil properties (physical, chemical, and biological) that result in the loss of the inherent ecological capacity or hydrologic function of the soil resource.
Data source: *Soil monitoring reports.*
Monitoring results: In 2025, two pastures were monitored on the WC NF to determine soil conditions from grazing. The West Fork Utah pasture on the West Fork Smith Fork allotment was monitored for ground cover and soil stability indicators at the Hewinta Exclosure on 08/15/2025. The Middle pasture on the Gilbert Creek allotment was also monitored for ground cover and soil stability indicators at the Gilbert Meadows Exclosure on 08/14/2025.

At the Hewinta Exclosure, canopy cover was 84% inside the exclosure (i.e., ungrazed), compared to 92% outside the exclosure (i.e., grazed), indicating similar plant canopy cover despite grazing. Bare ground was 2% inside and 0% outside, which suggests low erosion risk and good hydrologic function in both areas. Basal cover was 4% for both inside and outside the exclosure. Litter in the lower canopy measured 11% inside and 18% outside the exclosure. Litter/woody litter/duff on the soil surface was 94% inside and 92% outside the exclosure, indicating the soil is well protected from raindrop impact and runoff. Soil stability rankings were nearly identical, averaging 5.9 inside and 5.8 outside the exclosure, which indicates strong resistance to erosion and good soil biotic integrity. Overall, vegetation and soil indicators were comparable, suggesting grazing outside has had minimal impact on cover or soil stability at this site.

At the Gilbert Meadows Exclosure, canopy cover was 71% inside the exclosure, compared to 70% outside the exclosure, indicating similar plant canopy cover. Bare ground was 5% inside and 2% outside the exclosure, both low values that suggest minimal erosion risk. Basal cover was 15% inside and 11% outside the exclosure, showing slightly more ground-level vegetation inside the exclosure. Litter in the lower canopy measured 17% inside and 22% outside the exclosure. Litter/woody litter/duff on the soil surface was 71% inside and 84% outside the exclosure, providing good soil protection in both areas. Soil stability averaged 4.9 inside and 5.3 outside the exclosure, which indicates moderate resistance to erosion and good hydrologic function. Overall, vegetation and soil indicators were similar, with slightly more litter and soil stability outside the exclosure despite grazing, while inside the exclosure had higher basal cover, suggesting grazing outside the exclosure has had minimal impact on cover or soil stability at this site.

On the WC NF, both measured grazed locations (outside exclosures) at the monitored pastures had 102-103% of the effective ground cover of that in ungrazed conditions (inside exclosures). None of the vegetation types' ground cover potentials provided in the WCNF FP Standard S7 Appendix VII apply to the vegetation found at either of the Hewinta or Gilbert Meadows Exclosures. However, both measured grazed locations (outside exclosures) had greater than 85% of the potential effective ground cover (WCNF FP Standard S7) of that in ungrazed conditions (inside exclosures). Overall vegetation and soil indicators were comparable, suggesting grazing outside has had minimal impact on soil protection or soil stability at measured sites.

<u>Monitoring Question #13</u> NFMA compliance: Are we complying with appropriate NFMA requirements?
Finding: *No changes are needed*.

Indicator #1 Stocking of lands.
Data source: Uinta-Wasatch-Cache NF Annual Reforestation and Timber Stand Improvement Needs Report in

FACTS database.

Monitoring results: The Wasatch-Cache National Forest did not have any tree planting activities in 2024 through 2025. The forest does not show any acreage needed to be planted or to certify as being restocked.

<u>Monitoring Question #14</u> Are timber management activities impairing soil productivity of the land?

Finding: No changes are needed to Forest Plan. All four measured WCNF timber harvest units had only 3-10% (averaged 6%) detrimental soil disturbance, not exceeding the 15% guideline threshold of Wasatch-Cache NF (WC FP G4). Overall, detrimental soil disturbance was primarily due to compaction and altered soil structure (platy/massive) from heavy machinery. Live plants ranged between 24-47%, fine woody debris ranged between 70-90%, and coarse woody debris ranged between 45-80% across the area. Current ground-based timber management activities are within accepted guidelines and standards.

Indicator #1 Changes in soil properties (physical, chemical, and/or biological) that result in the loss of the inherent ecological capacity or hydrologic function of the soil resource. Specific indicators are amount of soil disturbance, change inorganic matter, or change in Soil structure, soil temperature, A horizon depth.
Data source: *Soil monitoring reports on timber harvest units.*
Monitoring results: The Northern Red Ryder Timber Sale (Payment Unit 8, Harvest Unit 32) closed on 6/29/2022 and was Monitored 2.16 years after sale closure. Transects only took place inside the middle and northern clear-cut patches. Harvest unit had skid trails and burn piles within unit, very few and shallow ruts were observed. Machinery operated over slash mats and limited detrimental soil disturbance in observed areas. The forest floor of the Northern Red Ryder Sale was impacted across 77% of the harvest unit, with only 3% soil displacement and no erosion observed. Live plant cover measured at 33%, while fine (<7 cm) and coarse woody debris (>7 cm) were present on 90% and 80% of the harvest unit, respectively. Bare soil and rock cover were observed at 10% and 17% of measurement locations, respectively, with an average forest floor depth of 3.5 cm. The harvest unit had 17% Class 0, 77% Class 1, 3% Class 2, and 3% Class 3 or detrimental soil disturbance.

The Eastern Roughneck Salvage Sale (Payment Unit 75, Harvest Unit 75) closed on 8/29/2022 and was monitored 2.00 years after sale closure. Harvest unit had only visible disturbances form burn piles and old temp roads within unit. The forest floor of the Eastern Roughneck Sale was impacted across 80% of the harvest unit, with 3% soil displacement and 3% erosion observed. Live plant cover measured at 47%, while fine (<7 cm) and coarse woody debris (>7 cm) were present on 87% and 70% of the harvest unit, respectively. Bare soil and rock cover were observed at 7% and 3% of measurement locations, respectively, with an average forest floor depth of 2.6 cm. The harvest unit had 17% Class 0, 70% Class 1, 10% Class 2, and 3% Class 3 or detrimental soil disturbance. One detrimental soil disturbance measurement occurred on the old, roughened temp road and was from the combination of mixing, soil displacement, compaction, and erosion. Class 1 was the predominate class because it was clear equipment went over the area. However, minimal soil disturbance occurred because the area is extremely rocky, with cobbles and gravels making up majority of the surface cover, and the equipment operated over slash, reducing the amount of compaction and soil disturbance that occurred. Temp roads and burn piles resulted in the largest disturbance to the area. However, lodgepole pine saplings are rapidly emerging.

The Reservoir Bugs Sale (Payment Unit 3, Harvest Unit 34) closed on 9/26/2022 and was monitored 2.75 years after sale closure. The harvest unit had visible disturbances form unburned machine piles, old temp roads, and skid trails within unit. The forest floor of the Reservoir Bugs Sale was impacted across 42% of the harvest unit, with 9% soil displacement and no erosion observed. Live plant cover measured at 24%, while fine (<7 cm) and

coarse woody debris (>7 cm) were present on 73% and 45% of the harvest unit, respectively. Bare soil and rock cover were observed at 6% and 6% of measurement locations, respectively, with an average forest floor depth of 4.3 cm. The harvest unit had 52% Class 0, 24% Class 1, 15% Class 2, and 9% Class 3 or detrimental soil disturbance. Aspen suckers and new conifers samplings were emerging during field visit.

The Nebeker Timber Sale (Payment Unit 8, Harvest Unit 8) closed on 10/12/2022 and was monitored 2.83 years after sale closure. The harvest unit had disturbances from skid trails, burn piles, and landings. The forest floor of the Nebeker Sale was impacted across 60% of the harvest unit, with 27% soil displacement and no erosion observed. Live plant cover measured at 30%, while fine (<7 cm) and coarse woody debris (>7 cm) were present on 70% and 57% of the harvest unit, respectively. Bare soil and rock cover were observed at 20% and 13% of measurement locations, respectively, with an average forest floor depth of 3.3 cm. The harvest unit had 17% Class 0, 53% Class 1, 20% Class 2, and 10% Class 3 or detrimental soil disturbance. Skid trails were very visible on the ground and imagery. Additional soil burning impacts were observed within the harvest unit but were not picked up in the transect. Aspen suckers and new conifers samplings were emerging during field visit.

<u>Monitoring Question #15</u> Are goods and services being provided in accordance with Forest Plan goals and objectives?

Finding: *No changes are needed. The Wasatch-Cache NF is providing a variety of goods and services according to the Forest Plan.*

Indicator #1 Number of Lands Special Use Permits.
Data source: Forest Service Special Uses Data System (SUDS) database.
Monitoring results: The number of lands and recreation special use permits are presented by ranger district in the table below. No data is available for 2024 or 2025. The Forest provided data as of September 2026 for reference. Lands SUPs are uses such as roads, dams, water transmission lines, fiber optic cables, powerlines. Recreation SUPs are uses such as recreation residences, outfitter and guides, organization camps, and recreation events. Fluctuations in the total number of land use authorizations can be attributed to permit clean up, consolidation, filming permit requests, and the handful of new applications each year.

Table 12. Special Use Permits (SUP) from 2019-2026.

Ranger District	***Number of Lands SUP***				***Number of Recreation SUP***			
	2019	***2021***	***2022***	***2026***	***2019***	***2021***	***2022***	***2026***
Supervisor's Office	*50*	*44*	*50*	*50*	*12*	*12*	*13*	*8*
Salt Lake	*159*	*159*	*202*	*148*	*162*	*178*	*256*	*183*
Kamas[1]	*32*	*32*	*75*	*58*	*43*	*51*	*138*	*136*
Evanston & Mountain View	*45*	*44*	*48*	*42*	*48*	*50*	*80*	*59*
Ogden	*43*	*48*	*56*	*52*	*9*	*18*	*32*	*12*
Logan	*61*	*62*	*74*	*70*	*92*	*94*	*119*	*99*

Total	*413*	*412*	*500*	*420*	*418*	*465*	*668*	*497*

1* Kamas and Heber Ranger Districts data are combined in SUDS.

Indicator #2 Number of Recreation Special Use Permits. See indicator #1 and table above.

Indicator #3 Acres leased for oil and gas exploration and development.
Data source: US Bureau of Land Management, MLRS (Mineral & Land Record System).
Monitoring results: As of 1/4/2024, there are 35 authorized oil and gas leases containing 33,024 acres within the Wasatch-Cache NF plan area. There has been no changes from the prior year Monitoring Reports.

Indicator #4 Level of permitted livestock grazing.
Data source: Range Allotment Annual Operating Plans
Monitoring results: The level of permitted livestock grazing has not changed since 2015. The table below presents the permitted commercial livestock use levels. The term AUM means animal unit months.

Table 13. Level of permitted livestock grazing.

Ranger District	*Number of permittees*	*Cattle Numbers*	*Cattle AUM*	*Sheep & Goats Numbers*	*Sheep & Goats AUM*	*Total number*	*Total AUM*
Salt Lake	*17*	*957*	*3,025*	*0*	*0*	*957*	*3,993*
Kamas	*12*	*989*	*5,146*	*0*	*0*	*989*	*5,146*
Evanston-Mt. View	*21*	*2,364*	*9,052*	*20,262*	*12,015*	*22,626*	*21,067*
Ogden	*17*	*2,549*	*4,549*	*9,915*	*6,242*	*12,464*	*10,791*
Logan	*31*	*5,132*	*23,760*	*11,029*	*9,826*	*16,181*	*33,586*
Total	*98*	*11,991*	*45,532*	*41,206*	*28,083*	*53,217*	*74,583*

Indicator #5 Other Forest Products (Fuelwood and Christmas Tree Permits).
Data source: TIM Worksheets, Volume/Value Sold by Product (PRP0251), rec.gov hub (internal to USFS)
Monitoring results: The Wasatch-Cache National Forest sold 20,625 Christmas Tree Permits and 6,726 Fuelwood Permits for a total of 27,351 special forest product permits to individuals in 2024-2025.

Indicator #6 Total Timber Sale Program Quantity.
Data source: TIM Worksheets – Volume/Value Sold by Product (PRP0251), TIM Worksheets – Volume/Value Awarded by Products and Species Worksheet (CRP207)
Monitoring results: For the combined Uinta-Wasatch-Chache NF through 2024-2025, the amount of commercial timber and personal use permits volume sold was 25,061 CCF. The Wasatch-Cache Forest plan identifies that the Forest should be offering 9,000 CCF of timber per year. Two years x 9,000 CCF = 18,000 for the Wasatch-Cache + the Uinta (3,190 X 2 = 6,380) equals 24,380 CCF forest-wide over a two-year period. Since the material that the forest is selling is nearly all salvage material resulting from beetle killed trees, we

are exceeding our average annual sale of timber.

<u>Monitoring Question #16</u> National Historic Preservation Act as amended: Are cultural resources being protected as the Forest Plan is implemented and are mitigation measures sufficient prevent damage to cultural resources from project activities? Are *Historic Properties* receiving adverse effects from project implementation, vandalism, looting, and/or neglect?

Finding: *No changes are needed.*

Indicator #1 Number of *Historic Properties* that received new adverse effects from looting, vandalism, and/or neglect.

Data source: Heritage data module, hard copy reporting.
Monitoring results: Two sites were subject to adverse effects. One indigenous rock art site was unintentionally damaged by rock climbers. One historic era archaeological site, the Alta Historic Townsite, was damaged through an inadvertent discover of intact archaeological materials in an area previously thought to have been subject to ground disturbance.

42CA20: Right Hand Fork Rockshelter. This rock shelter is located in Cache County, Utah, in Logan Canyon, east of Logan, Utah. There is an indigenous rock art panel that has been inadvertently damaged by rock climbers scrambling up the panel to access climbing routes bolted into the ceiling of the rockshelter. We documented the site, develped and installed interpretive signage informing climbers about the art panel, and worked with a local climbing group to add information and a warning about the panel on the locational app for the climbing area. This way any climber accessing the site through the app would have to acknowledge they understand to avoid the rock art panel prior to receiving the rest of the information about how to access the climbing site.

42SL52: Historic Alta Townsite (1870s). The Forest Service approved a project by the Alta Ski Lifts Company to install and underground water reservoir for snow making activities and the replacement of a culinary waterline. It was originally thought the utility corridor was previously disturbed, however, during the excavation of the utility line trench, the on-site monitor identified intact archaeological features and artifacts. The excavation of the water line and snow making reservoir resulted in an adverse effect to the historic property. Utah SHPO was consulted about the adverse effect, and the USFS and Utah SHPO held 3 joint public events to offset the adverse effect caused by project implementation.