

DECISION NOTICE
and
FINDING OF NO SIGNIFICANT IMPACT
and
DETERMINATION OF AMENDMENT AS NOT SIGNIFICANT
AQUATIC MONITORING AMENDMENT

USDA FOREST SERVICE
DIXIE NATIONAL FOREST
Garfield, Iron, Kane, Piute, Washington, and Wayne Counties, Utah

INTRODUCTION

This Decision Notice documents my decision to implement the Proposed Action as described in the Aquatic Monitoring Amendment Environmental Assessment (EA). The environmental and social effects of the Proposed Action as well as No Action are described in detail within the EA. Additional alternatives were considered but eliminated from detailed analysis. The Proposed Action is approval of a Forest Plan Amendment of the Dixie National Forest Land and Resource Management Plan (LRMP) that replaces the Management Indicator Species (MIS) for fish habitat and eliminates references to an obsolete Forest Service handbook.

PURPOSE AND NEED OF THE PROPOSED ACTION

The purpose of the Proposed Action is to update and clarify the species monitored and the methods used to assess aquatic habitat on the Dixie National Forest.

This action is needed because the current aquatic MIS list does not adequately represent aquatic habitat, specifically fish habitat, across the Forest. The current aquatic MIS list also includes an index that is not effective at evaluating fish habitat capability on the Forest and thus is not effective at indicating “the effects of management activities,” the purpose of an MIS (36 C.F.R. 219.19(a)(1)). This action is also needed, because the current LRMP makes obsolete reference to methods of the Region 4 General Aquatic Wildlife Survey (R4 GAWS) in a Forest Service Handbook that has been removed from the directive system.

LRMP revision was considered the preferred means to address several of the above issues with the MIS for fish and fish habitat. LRMP revision efforts were formally initiated with a Notice of Intent in 2002 (Federal Register 67(91):31761). However, LRMP revision has not yet been completed. The Forest is continuing to conduct activities under its LRMP; therefore, the Forest needs the modification and clarification of the MIS for fish and fish habitat for its ongoing projects and programs. There is a current need to amend the LRMP to better monitor fish and fish habitat.

The Forest determined that the following changes are needed:

- Bonneville cutthroat trout, Colorado River cutthroat trout, and other resident trout (i.e. non-native salmonids) will be monitored as aquatic MIS, because the condition and trend of these species across the Forest and within specific watersheds is indicative of overall aquatic ecosystem condition.

- Add Virgin spinedace and southern leatherside as aquatic MIS, because they are the subject of conservation agreements and strategies, and southern leatherside is a Forest Service Region 4 sensitive species.
- Remove aquatic macroinvertebrate biotic condition index (BCI) as an MIS due to its redundancy and ineffectiveness as an indicator of fish habitat capability.
- Clarify aquatic MIS applicability.
- Amend aquatic MIS metrics to improve comparison with conservation objectives or State management objectives.
- Remove the obsolete references to R4 GAWS.
- Establish an MIS for fish habitat that can be easily and efficiently monitored using standard population monitoring techniques (i.e. electro-shocking, gill-netting, etc.), which are cost-effective and readily accomplished.
- Increase opportunity for cooperative monitoring of MIS with the Utah Division of Wildlife Resources (UDWR).

PROPOSED ACTION AREA

The Proposed Action applies to the entire Dixie National Forest. The Forest is located in Garfield, Iron, Kane, Piute, Wayne, and Washington counties in southcentral and southwestern Utah. There are currently four ranger districts on the Forest: Cedar City, headquartered in Cedar City; Escalante, headquartered in Escalante; Pine Valley, headquartered in St. George; and Powell, headquartered in Panguitch. The Supervisor's Office is collocated with the Cedar City Ranger District in Cedar City.

In March 2006 the Teasdale Ranger District on the Dixie National Forest and the Loa Ranger District on the Fishlake National Forest were consolidated into the Fremont River Ranger District, headquartered in Loa. This ranger district is administered by the Fishlake National Forest; however, the area that was the Teasdale Ranger District remains part of the Dixie National Forest, falls under the management direction of the Dixie National Forest's LRMP, and thus is included in the area affected by the Proposed Plan Amendment.

DECISION

My decision to implement the Proposed Action is based on consideration of LRMP goals and objectives, general management direction, and management prescription direction. It is also based on results of monitoring over the past two decades. I also considered the analysis of effects documented in the EA. The Proposed Forest Plan Amendment is in Appendix A of this Decision Notice.

OTHER ALTERNATIVES CONSIDERED

In addition to the Proposed Action, the interdisciplinary team considered four other alternatives.

No Action. The No Action alternative is required by law to be analyzed and used as a baseline for action alternatives. Under the No Action alternative, no changes to the LRMP would be made.

Increase or Use Other Metrics for Aquatic Macroinvertebrate MIS

A coalition of interested parties submitted an alternative proposal to increase the metrics used for the aquatic macroinvertebrate MIS. These include total taxa richness, number of long-lived taxa, number of intolerant taxa, species habit, number of Ephemeroptera-Plecoptera-Trichoptera taxa, percent predators, and functional feeding group. This alternative was considered but not analyzed fully, as discussed in detail in the EA. For this Forest, the other metrics for macroinvertebrates do not reliably indicate effects of management activities on fish habitat capability, the purpose of the aquatic MIS in the LRMP, or they are duplicated by other monitoring in the current LRMP. Expanding the macroinvertebrate metrics would also not meet the need to improve cost-effectiveness of the aquatic monitoring program.

Use Predictive Modeling for Aquatic Macroinvertebrates

The interdisciplinary team considered use of an aquatic macroinvertebrate multi-metric or predictive model in place of the aquatic macroinvertebrate BCI, currently an aquatic MIS to assess fish habitat capability in the absence of fish data. This alternative was considered but not developed fully or analyzed in detail. Such a model would be considered the best available science for using aquatic macroinvertebrates for assessing water quality or stream health; however, as with the BCI, the predictive model would not directly serve the MIS purpose of assessing fish habitat capability. The LRMP also includes direct monitoring of water quality and channel parameters, making redundant the potential use of the predictive model to assess water quality or stream health.

Include MIS or Other Direction for Aquatic Habitats that Do Not Include Fish

In response to scoping comment, the IDT considered development of an alternative that included an MIS for aquatic habitats that do not include fish but eliminated it from further analysis. There is no requirement that MIS are selected for all habitats found on the Forest.

The Forest also considered development of an alternative that identified management direction and monitoring other than through MIS for habitats for other wildlife vertebrates that may depend on aquatic habitats for all or part of their life cycle. Such an alternative was considered but not developed fully or analyzed in detail. The Forest reviewed management direction and found that not only does existing LRMP direction address management of aquatic habitats that are not fish-specific, but existing direction also addresses streams, lakes, and springs.

RATIONALE FOR THE DECISION

In making this decision I considered comments and concerns from interested publics and the analysis brought forward in the EA.

- The detailed description of the Purpose and Need clearly indicates that an amendment is needed, and the Proposed Action best addresses all of the needs identified.
- The need for the Proposed Action is based on Forest aquatic macroinvertebrate and fish data that have been collected over the past two decades.
- The Proposed Action is based on the most recent objectives developed by conservation teams for fish species in need of special conservation consideration and, therefore, considered the best available science.

After reviewing the analysis in the EA, I have determined that the Proposed Action will not have significant effects to the human environment.

PUBLIC INVOLVEMENT AND ISSUES

The project description was posted on the Schedule of Proposed Actions (SOPA) during the period October 1, 2008, to present. A scoping notice for the Proposed Action was published in *The Spectrum* on March 4, 2009. Scoping letters were mailed to approximately 33 individuals, organizations, and agencies on March 2, 2009. Three written responses and comments were received.

The Forest Service reviewed the scoping responses and comments to identify issues. These were then separated into two groups: issues carried forward for analysis and issues not carried forward for analysis. Issues carried forward for analysis were defined as those directly or indirectly caused by implementing the Proposed Action or those requiring an alternative, project design, or mitigation to be developed. Issues not carried forward for analysis were defined as those: 1) outside the scope of the Proposed Action; 2) already decided by law, regulation, LRMP, or other higher level decision; 3) already duplicated in the Proposed Action; or 4) irrelevant or conjectural and not supported by scientific or factual evidence. The full comment analysis may be found in the project record.

Those comments that were identified as issues are those that generated either changes to the Proposed Action or alternatives. Those issues are as follows:

Issue 1: By eliminating the aquatic habitat indicators from Table II-13 on page II-16a of the LRMP, the proposed amendment provides no baseline for future evaluation of those indicators

Disposition of issue: Expansion of proposed amendment to amend rather than eliminate the aquatic habitat indicators from Table II-13.

Issue 2: Instead of eliminating the aquatic macroinvertebrate BCI as an MIS, because it does not provide sufficient information as a stand-alone metric, the Forest should consider expanding the use of aquatic macroinvertebrate monitoring or expand parameters used for the BCI.

Disposition of issue: An alternative to include more aquatic macroinvertebrate metrics was considered. It was not carried forward, as explained below in Section 2.2.1.

Issue 3: The Forest is not describing the current situation correctly in developing the Proposed Action. Commentors state “the Forest Plan prescribes use of the R4 GAWS, which explicitly says not to rely on just one index, and contains several metrics to use alongside BCI.”

Disposition of issue: The LRMP was reviewed for references to R4 GAWS. As a result of the review, the purpose and need and the Proposed Action were expanded, as described in Section 1.4 and Section 2.1.2.

Issue 4: The Forest does not have an aquatic MIS for aquatic communities that do not contain fish.

Disposition of issue: An alternative to add an aquatic MIS for aquatic communities that do not contain fish was considered but not developed fully, as explained in Section 2.2.3.

FINDING OF NO SIGNIFICANT IMPACT (FONSI)

Based on the interdisciplinary environmental analysis, review of the National Environmental Policy Act (NEPA) criteria for significant effects, and my knowledge of the expected impacts, I have determined that this action does not pose a significant effect upon the quality of the human environment; therefore, an Environmental Impact Statement is not needed. This determination is based on the following factors:

(1) Impacts that may be both beneficial and adverse. A significant effect may exist even if the Federal agency believes that on balance the effect will be beneficial.

The EA explains that the Proposed Action is programmatic in nature with no impacts to the human environment.

(2) The degree to which the proposed action affects public health or safety.

With no impacts to the human environment, there would be no effects to public health or safety.

(3) Unique characteristics of the geographic area such as proximity to historic or cultural resources, park lands, prime farmlands, wetlands, wild and scenic rivers, or ecologically critical areas.

With no impacts to the human environment, there would be no effects to unique characteristics of the geographic area.

(4) The degree to which the effects on the quality of the human environment are likely to be highly controversial.

Not all comments were in support of the Proposed Action; however, I reviewed the interdisciplinary team’s review of comments and disposition of issues. With no impacts to the human environment, there would be no effects to the quality of the

human environment and, therefore, no controversy over effects to the quality of the human environment.

(5) The degree to which the possible effects on the human environment are highly uncertain or involve unique or unknown risks.

There are no known effects to the human environment that are highly uncertain or involve unique or unknown risks.

(6) The degree to which the action may establish a precedent for future actions with significant effects or represents a decision in principle about a future consideration.

The Proposed Action does not represent a precedent for future actions with significant effects or represent a decision in principle about a future consideration.

(7) Whether the action is related to other actions with individually insignificant but cumulatively significant impacts. Significance exists if it is reasonable to anticipate a cumulatively significant impact on the environment. Significance cannot be avoided by terming an action temporary or by breaking it down into small component parts.

The Proposed Action has no impact to the human environment; therefore, there are no cumulative effects.

(8) The degree to which the action may adversely affect districts, sites, highways, structures, or objects listed in or eligible for listing in the National Register of Historic Places or may cause loss or destruction of significant scientific, cultural, or historical resources.

The Proposed Action involves no ground-disturbing activity and no impacts to the human environment; therefore it has no impacts to districts, sites, highways, structures, or objects listed in or eligible for listing in the National Register of Historic Places or significant scientific, cultural, or historical resources.

(9) The degree to which the action may adversely affect an endangered or threatened species or its habitat that has been determined to be critical under the Endangered Species Act of 1973.

The BA determined that the Proposed Action would have no effect on endangered or threatened species or its habitat that has been determined to be critical under the Endangered Species Act of 1973. The Proposed Action is programmatic and does not change current management direction involving endangered or threatened species or critical habitat.

**(10) Whether the action threatens a violation of Federal, State, or local law or requirements imposed for the protection of the environment.
(40 CFR 1508.27)**

Implementation of the Proposed Action will not violate any Federal, State, or local law or requirements imposed for the protection of the environment (EA Section 2.3).

DETERMINATION THAT AMENDMENT IS NOT SIGNIFICANT

The EA discloses the potential impacts that are associated with approving the Proposed Forest Plan Amendment. The determination of significance of effects under NEPA, discussed above under the Finding of No Significant Impacts, is different from the determination of significance of the amendment relative to the existing LRMP.

I have reviewed Forest Service Manual (FSM) 1920, Chapter 1926.51 and find that the amendment falls within circumstances that could result in changes to the land management plan that are **not significant** and have determined the following for the amendment:

1. Actions that do not significantly alter the multiple-use goals and objectives for long-term land and resource management.

The amendment does not alter multiple-use goals and objectives for long-term land and resource management.

2. Adjustments of management area boundaries or management prescriptions resulting from further on-site analysis when the adjustments do not cause significant changes in the multiple-use goals and objectives for long-term land and resource management

Site-specific data analysis indicated the lack of reliability of the aquatic macroinvertebrate BCI for assessing fish habitat capability. This formed the basis of the rationale for the amendment. The amendment would not adjust management area boundaries. The amendment makes no change to management activities. The amendment makes minor changes to clarify general direction and management area direction. It makes changes to standards and guidelines by replacing an obsolete handbook reference. These changes would not cause significant changes in the multiple-use goals and objectives for the long-term land and resource management.

3. Minor changes in standards and guidelines

The amendment makes minor changes to standards and guidelines by replacing an obsolete handbook reference.

4. Opportunities for additional projects or activities that will contribute to achievement of the management prescription.

The amendment provides opportunity for continued coordination with the monitoring program of the UDWR.

I have also considered FSM 1920, Chapter 1926.52 and find that the proposed amendment would not result in circumstances that may cause significant change to a land management plan:

1. Changes that would significantly alter the long-term relationship between levels of multiple-use goods and services originally projected.

The amendment changes the monitoring program. It does not significantly change the long-term relationship between levels of multiple-use goods and services originally projected.

2. Changes that may have an important effect on the entire land management plan or affect land and resources throughout a large portion of the planning area during the planning period.

The amendment is for the entire area covered by the Dixie LRMP. The amendment is programmatic and provides clarification and improved effectiveness of the monitoring program for fish habitat. It would have a minimal effect on most of the land management plan or most of the planning area during the planning period.

Determination of Not Significant Amendment

Based on the associated environmental analysis and above considerations, I have determined that this proposed Forest Plan amendment is not significant. Appropriate public notification of the amendment was provided through the NEPA procedures, as described in Section 1.7 of the EA.

FINDINGS REQUIRED BY OTHER LAWS AND REGULATIONS

This decision is consistent with the following laws:

- National Forest Management Act
- Endangered Species Act, as amended
- American Antiquities Act of 1906
- National Historic Preservation Act of 1966
- Clean Water Act
- Clean Air Act
- Executive Orders 11990 of May 1977 (Wetlands)
- Executive Order 11988 of May 1977 (Floodplains)
- Executive Order 12898 of February 1994 (Environmental Justice)
- Executive Order 13186 of January 2001 (Migratory Bird Treaty Act)
- Strategy for Implementing Migratory Bird Treaty Act and EO 13186 on National Forest Lands in Utah of March 2007 (Migratory Bird Treaty Act)
- MOU between the U.S. Fish and Wildlife Service and the Forest Service of December 2008 (Migratory Bird Treaty Act)

With no impacts to the human environment, there would be no significant impacts on wilderness, critical habitat, or farmlands. This action does not pose any unusual risks to public health and safety and there are no known significant effects on civil rights, women, or minorities.

This Proposed Action amends the Dixie National Forest Land and Resource Management Plan (1986), as amended, but is otherwise fully consistent with it. This Proposed Action will not have a significant adverse effect upon subsistence resources and opportunities.

USE OF BEST AVAILABLE SCIENCE

My decision is based on a review of the record. The record includes a thorough review of relevant scientific information, a consideration of responsible opposing views, and the acknowledgement of incomplete or unavailable information.

ADMINISTRATIVE REVIEW

Pursuant to Appendix A to 36 CFR 219.35, the Responsible Official has the option to select either the objection procedures of 36 CFR 219.32 or the optional appeal procedures published at 54 FR 3357 (January 23, 1989), as amended at 54 FR 13807 (April 5, 1989); 54 FR 34509 (August 21, 1989); 55 FR 7895 (March 6, 1990); 56 FR 4918 (February 6, 1991); 56 FR 46550 (September 13, 1991); 56 FR 46550 (September 13, 1991); and 58 FR 58915 (November 4, 1993). I have selected to use the optional appeal procedures.

APPEALS INFORMATION AND OPPORTUNITY

This decision is subject to appeal pursuant to optional appeal procedures at 54 FR 3357 (January 23, 1989), as amended at 54 FR 13807 (April 5, 1989); 54 FR 34509 (August 21, 1989); 55 FR 7895 (March 6, 1990); 56 FR 4918 (February 6, 1991); 56 FR 46550 (September 13, 1991); 56 FR 46550 (September 13, 1991); and 58 FR 58915 (November 4, 1993).

Pursuant to 54 FR 3357, other than Forest Service employees, any person or any non-Federal organization or entity may challenge this decision and request a review by the Forest Service line officer at the next administrative level. The Reviewing Officer for this decision is the Regional Forester, Region 4.

Notices of appeal must meet the content requirements of the optional administrative appeal and review procedures allowed by 36 CFR 219. At a minimum, a written notice of appeal filed with the reviewing officer must:

- (1) State that the document is a notice of appeal filed pursuant to 36 CFR 219.14(b)(2);
- (2) List the name, address, and telephone number of the appellant;
- (3) Identify the decision about which the requester objects;
- (4) Identify the document in which the decision is contained by title and subject, date of the decision, and name and title of the deciding officer;
- (5) Identify specifically that portion of the decision or decision document to which the requester objects;
- (6) State the reasons for objecting, including issues of fact, law, regulation, or policy, and, if applicable, specifically how the decision violates law, regulation, or policy; and
- (7) Identify the specific change(s) in the decision that the appellant seeks.

A written notice of appeal must be hand-delivered, postmarked by the Postal Service, faxed, or e-mailed to the Appeal Reviewing Officer within 45 calendar days of the date of publication of the legal notice of this decision in *The Spectrum* (St. George, Utah). Written notices of appeal must be sent to: Appeal Reviewing Officer, Intermountain Region USFS, 324 25th Street, Ogden, Utah 84401 (or fax to 801-625-5277). The office business hours for those submitting hand-

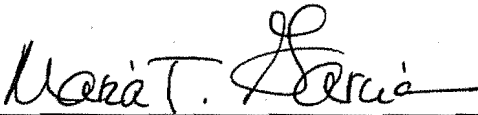
delivered appeals are: 8am to 4:30pm, Monday through Friday, excluding holidays. Electronic appeals must be submitted in a format such as an email message, plain text (.txt), rich text format (.rtf), or Word (.doc or .docx) to: appeals-intermtn-regional-office@fs.fed.us. The notice of appeal must have an identifiable name attached, or verification of identity will be required. A scanned signature may serve as verification on electronic appeals.

IMPLEMENTATION

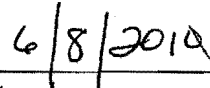
Implementation of the proposed action will be on the eighth calendar day following publication of the legal notice.

CONTACT

A detailed record of the environmental assessment is available upon public request at the Dixie National Forest Supervisor's Office, 1789 North Wedgewood Lane, Cedar City, Utah, 84721. For additional information, contact the Interdisciplinary Team Leader at (435) 865-3700.



Maria T. Garcia, Acting Forest Supervisor
Dixie National Forest



Date

The U.S. Department of Agriculture (USDA) prohibits discrimination in all its programs and activities on the basis of race, color, national origin, age, disability, and where applicable, sex, marital status, familial status, parental status, religion, sexual orientation, genetic information, political beliefs, reprisal, or because all or part of an individual's income is derived from any public assistance program. (Not all prohibited bases apply to all programs.) Persons with disabilities who require alternative means for communication of program information (Braille, large print, audiotape, etc.) should contact USDA's TARGET Center at (202) 720-2600 (voice and TDD).

To file a complaint of discrimination, write to USDA, Director, Office of Civil Rights, 1400 Independence Avenue, S.W., Washington, D.C. 20250-9410, or call (800) 795-3272 (voice) or (202) 720-6382 (TDD). USDA is an equal opportunity provider and employer.

APPENDIX A

PROPOSED FOREST PLAN AMENDMENT

- LRMP page II-14,15

Remove “TABLE II-12 MANAGEMENT INDICATOR SPECIES” on pages II-15 and II-16 of the LRMP:

TABLE II-12
MANAGEMENT INDICATOR SPECIES
FOR THE
DIXIE NATIONAL FOREST

SPECIES	VEGETATION TYPE(S)
Mule Deer a/	Grass-forb, sagebrush, mountain brush Pinyon-juniper, sapling-mature aspen, Sapling mature conifer
Rocky Mountain Elk a/	Grass-forb, sapling-mature aspen, Sapling-old growth conifer
Wild Turkey	Mountain brush, pole-mature aspen, Mature-old growth conifer
Goshawk	Riparian tree, mature aspen, Mature-old growth conifer
Common Flicker	Mature aspen, mature conifer
Riparian Condition	All riparian vegetation
Bonneville Cutthroat Trout	Pristine headwater streams
Resident Trout; a/ Rainbow, Brooke, Brown, Cutthroat	Streams, rivers, lakes, reservoirs
Macroinvertebrates	Streams, river, lakes, reservoirs

a/ High demand species

Replace it with the following:

TABLE II-12
 MANAGEMENT INDICATOR SPECIES
 FOR THE
 DIXIE NATIONAL FOREST

SPECIES	VEGETATION TYPE(S)
Mule Deer a/	Grass-forb, sagebrush, mountain brush Pinyon-juniper, sapling-mature aspen, Sapling mature conifer
Rocky Mountain Elk a/	Grass-forb, sapling-mature aspen, Sapling-old growth conifer
Wild Turkey	Mountain brush, pole-mature aspen, Mature-old growth conifer
Goshawk	Riparian tree, mature aspen, Mature-old growth conifer
Common Flicker	Mature aspen, mature conifer
Riparian Condition	All riparian vegetation
SPECIES	FISH HABITAT TYPE(S)
Native Cutthroat trout: Bonneville, Colorado River	Streams, lakes, reservoirs
Virgin Spinedace	Streams
Southern Leatherside	Streams
Non-native trout combined: Brook, Brown, Rainbow, Cutthroat	Streams, lakes, reservoirs

- LRMP page II-16a

Rename “TABLE II-13” to “TABLE II-13a” and “MIS” to “MIS FOR VEGETATION TYPES.”

Remove the following rows from “TABLE II-13”

Bonneville Cutthroat trout	Stream	4,000 fish	7	4,000 fish	7	2.5 MM fish	2,500	9,800
Resident Trout	Lakes, Reservoirs above 10,000 Feet	8 lbs. per ac.	3,100	20 lbs per ac1/	31,000	100 lbs/ac.		
	Lakes below 10,000 feet	40p lbs per ac.		100 lbs per ac1/		100 lbs/ac.		
	Reservoirs below 10,000 feet	20 lbs per ac.		50 lbs per ac 1/		100 lbs/ac.		
	Streams in sedimentary materials	32 lbs per ac.	255	80 lbs per ac	250		400	
	Streams in volcanic materials	24 lbs per ac.		60 lbs per ac		120 lbs/ac.		
	Streams in granitic materials	16 lbs per ac.		40 lbs per ac		80 lbs/ac.		
Macroinvertebrates	Streams	BCI=70				BCI=100		

Insert the following table:

TABLE II-13b
 POPULATION AND HABITAT ESTIMATES
 FOR MIS FOR FISH HABITAT TYPES
 DIXIE NATIONAL FOREST

Species	Habitat type	Existing populations or estimated standing crop	Estimated existing habitat	Estimated maximum suitable habitat	Projected habitat at 2030
Native Bonneville ¹ cutthroat trout	Streams	10 populations	62.2 miles	72.2 miles	72.2 miles
	Lakes/reservoirs	1 population	1.9 acres	1.9 acres	1.9 acres
Native Colorado River cutthroat trout ²	Streams	8 populations	34.5miles	42.5 miles	42.5 miles
	Lakes/reservoirs	6 populations	18.1 acres	18.1 acres	18.1 acres
Virgin spinedace ³	Streams	1 population	7 miles	7 miles	7 miles
Southern leatherside ⁴	Streams	5 populations	23.2 miles	41.1 miles	25.8 miles
Non-native trout ⁵	Streams	108 kg/ha	414.2 miles	396.2 miles	396.2 miles
	Lakes/reservoirs	30 fish/ net night	3109 acres	3109 acres	3109 acres

¹ Derived from data for core/conservation populations in the UDWR Bonneville Cutthroat Trout database

² Derived from the core/conservation populations in the 2006 Colorado River Cutthroat Trout Conservation Strategy

³ Derived from the 2002 Virgin Spinedace Conservation Agreement and Strategy

⁴ Derived from current and historical distributions in the 2010 Conservation Agreement and Strategy for Southern Leatherside

⁵ Derived from the average of Dixie National Forest surveys between 2002 and 2009. This is a conservative estimate, because at least 11 surveys were conducted in areas that are probably fishless historically. The estimate would be 126 kg/ha without these surveys.

- LRMP page II-17

Remove the following “Aquatic Habitat Indicators” paragraph and closing MIS paragraph on page II-17 of the LRMP:

Aquatic Habitat Indicators – Because of the variety of aquatic habitats on the Forest, a combination of Indicator Species will be used. The native Bonneville cutthroat trout will be the MIS in those streams which contain native or transplanted populations. Rainbow, brown, brook, or cutthroat trout will be used in most streams and lakes on the Forest. The most common species in a particular water body will be the MIS in that area. If fish population data is not available for a particular water body, the macroinvertebrate biotic condition index (BCI) will be used to assess fish habitat capability.

The Current, Minimum Viable and Maximum Potential Population levels of the various MIS have been estimated and are displayed in Table II-13. Minimum viable populations are estimated assuming adequate distribution of the animals so that reproduction can occur.

Replace them with the following:

Fish Habitat Indicators – Where present, the native Bonneville cutthroat trout, native Colorado River cutthroat trout, Virgin spinedace, and southern leatherside will each be an MIS, because they are species with special conservation needs. The estimated existing habitat on the Forest meets the Forest’s portion of conservation objectives in their respective conservation strategies. The Bonneville cutthroat trout and Colorado River cutthroat trout will be considered native in those streams, lakes, and reservoirs that contain remnant populations and/or populations that were reintroduced or introduced and are considered “conservation” or “core” populations per their conservation strategies. Non-native trout are commonly fished and, in the absence of the other MIS, will be the MIS and considered as a group. The estimated existing habitat on the Forest supports nearly double the average biomass (standing crop) and catch rate for trout in southern Utah.

- LRMP page IV-33,34

Remove Standards and Guidelines of the Wildlife and Fish Resource Management (C01), General Direction 7:

<p>Wildlife and Fish Resource Management (C01)</p>	<p>7. Manage waters capable of supporting self-sustaining trout populations to provide for those populations</p>	<p>Where natural geologic and biologic conditions will allow, maintain the following stream habitat conditions:</p> <p>A. Maintain 40% or more of overhanging grasses, forbs, sedges, and shrubs along banks of streams.</p> <p>B. Maintain 50% or more of total stream bank length in stable condition</p> <p>C. No more than 25% of stream substrate should be covered by inorganic sediment less than 3.2mm in size (use R-4 GAWS Aquatic Habitat Surveys Handbook)</p> <p>D. Maintain overall stream habitat condition at or above 40 percent of optimum (use R4-GAWS Aquatic Habitat Surveys Handbook)</p>
--	--	---

Replace the Standards and Guidelines with the following:

<p>Wildlife and Fish Resource Management (C01)</p>	<p>7. Maintain aquatic habitat capable of supporting self-sustaining trout populations to provide for those populations</p>	<p>Where natural geologic and biologic conditions will allow, and to the extent consistent with overall multiple use objectives, maintain the following stream habitat conditions:</p> <p>A. Maintain 40% or more of overhanging grasses, forbs, sedges, and shrubs along banks of streams.</p> <p>B. Maintain 50% or more of total stream bank length in stable condition</p> <p>C. No more than 25% of stream substrate should be covered by inorganic sediment less than 3.2mm in size</p> <p>D. Maintain or improve overall aquatic habitat to support existing self-sustaining trout populations</p>
--	---	---

- LRMP page IV-42

Remove Standard and Guideline A of the Water Uses Management (F04), General Direction 4:

Water Uses Management (F04)	4. Determine and obtain rights to instream flow and conservation pools in cooperation with Utah DWR to support a yield of natural fisheries resources	A. Determine instream flows by R4 GAWS Aquatic Habitat Surveys or other accepted methodologies.
-----------------------------	---	---

Replace Standard and Guideline A with the following:

Water Uses Management (F04)	4. Determine and obtain rights to instream flow and conservation pools in cooperation with Utah DWR to support a yield of natural fisheries resources	A. Determine instream flows by accepted methods.
-----------------------------	---	--

- LRMP page IV-75

Remove Standard and Guideline A of the Wildlife Habitat Improvement and Maintenance (C02, 04, 05 and 06) practice, Management Direction (04A) 1:

Wildlife Habitat Improvement and Maintenance (C02, 04, 05 and 06)	1. Provide habitat diversity to meet or exceed our population goals for all aquatic vertebrate species	A. Where natural biologic and geologic conditions will allow. Maintain or improve overall stream habitat condition at or above 70 percent of optimum. (Use R4-GAWS Aquatic Habitat Surveys Handbook)
---	--	--

Replace Standard and Guideline A with the following:

Wildlife Habitat Improvement and Maintenance (C02, 04, 05 and 06)	1. Provide habitat to meet or exceed the needs of estimated existing populations for all aquatic MIS	A. Where natural biologic and geologic condition will allow and to the extent consistent with overall multiple use objectives, maintain aquatic habitat conditions to maintain existing aquatic MIS populations
---	--	---

- LRMP page IV-76

Remove Standard and Guideline A of the Wildlife Habitat Improvement and Maintenance (C02, 04, 05 and 06) practice, Management Direction (04A) 4:

Wildlife Habitat Improvement and Maintenance (C02, 04, 05 and 06)	4. Maintain instream flows in cooperation with State wildlife agencies to support a sustained yield of natural fisheries resources	A. Instream flows will be determined by R-4 GAWS Aquatic Habitat Surveys procedures or other accepted methodology
---	--	---

Replace Standard and Guideline A with the following:

Wildlife Habitat Improvement and Maintenance (C02, 04, 05 and 06)	4. Maintain instream flows in cooperation with State wildlife agencies to support a sustained yield of natural fisheries resources	A. Instream flows will be determined by accepted methods.
---	--	---

- LRMP page IV-138

Remove Standard and Guideline A of the Wildlife Habitat Improvement and Maintenance (C02, 04, 05 and 06) practice, Management Direction (09A) 1:

Wildlife Habitat Improvement Maintenance (C02, 04, 05 and 06)	1. Provide habitat to meet or exceed DWR population goals for all aquatic vertebrate species.	A. Where natural biologic and geologic conditions will allow, maintain or improve overall stream habitat condition at or above 50 percent of optimum (use R4-GAWS Aquatic Habitat Surveys Handbook)
---	---	---

Replace Standard and Guideline A with the following:

Wildlife Habitat Improvement and Maintenance (C02, 04, 05 and 06)	1. Provide habitat to meet or exceed the needs of estimated existing populations for all aquatic MIS	A. Where natural biologic and geologic conditions will allow and where consistent with overall multiple use objectives, maintain or improve aquatic habitat conditions to maintain or expand existing aquatic MIS populations
---	--	---

- LRMP page IV-147

Remove Standard and Guideline A of the Wildlife Habitat Improvement and Maintenance (C02, 04, 05 and 06) practice, Management Direction (09B) 1:

Wildlife Habitat Improvement Maintenance (C02, 04, 05 and 06)	1. Provide habitat to meet or exceed DWR population goals for all aquatic vertebrate species	A. Where natural biologic and geologic conditions permit, maintain or improve overall stream habitat condition at or above 70 percent of optimum (use R4-GAWS Aquatic Habitat Surveys Handbook).
---	--	--

Replace Standard and Guideline A with the following:

Wildlife Habitat Improvement and Maintenance (C02, 04, 05 and 06)	1. Provide habitat to meet or exceed the needs of estimated existing populations for all aquatic MIS	A. Where natural geologic and biologic condition will allow and where consistent with overall multiple use objectives, maintain or improve aquatic habitat conditions to maintain or expand existing aquatic MIS populations
---	--	--

- LRMP page V-5

Remove rows d and e under Wildlife and Fish, Management Indicators.

Activities, Effects, and Resources to be Measured	Monitoring Method	Precision/Reliability	Measurement Frequency	Reporting Period	Variation Which Would Cause Further Evaluation and/or change in Management Direction
d. Trout: brook, brown, rainbow, cutthroat	Gill netting, electro-shocking, creel census	M/H	Annual	Annual	20% total decline in population size over a 5-year period or a major change in size or quality of catch
e. Bonneville cutthroat	Electro-shocking, R-4 GAWS habitat survey	M/H	Annual	Annual	10% decline in population in any one stream in any one year

Replace rows d and e with the following:

Activities, Effects, and Resources to be Measured	Monitoring Method	Precision/Reliability	Measurement Frequency	Reporting Period	Variation Which Would Cause Further Evaluation and/or change in Management Direction
d. Native cutthroat trout: Bonneville, Colorado River	Accepted methods, such as gill netting, electro-shocking, or creel census, in coordination with UDWR when possible	M/H	7-year revisit interval	Annual	20% decline in occupied habitat of any single population over a 7-year period or a major change in size or quality of catch
e. Virgin spinedace	Accepted methods, such as electro-shocking, in coordination with UDWR when possible	M/H	5-year revisit interval	5 year	20% decline in occupied habitat Forest-wide in any 5-year period, or a major change in age class structure or reproductive success
f. Southern leatherside	Accepted methods, such as electro-shocking, in coordination with UDWR when possible	M/H	5-year revisit interval	5 year	20% decline in occupied habitat Forest-wide in any 5-year period or a major change in age class structure or reproductive success
g. Non-native trout: brook, brown, rainbow, cutthroat	Accepted methods, such as gill netting, electro-shocking, or creel census, in coordination with UDWR when possible	M/H	5-year revisit interval; at least 15 streams per year	Annual	20% total decline in estimated biomass(streams)/catch rate(lakes/reservoirs) Forest-wide over a 5-year period or a major change in size or quality of catch

- LRMP V-6

Remove row c of Wildlife and Fish, Conformance with Standards and Guidelines:

ACTIVITIES, EFFECTS AND RESOURCES TO BE MEASURED	MONITORING METHOD	PRECISION/RELIABILITY	MEASUREMENT FREQUENCY	REPORTING METHOD	VARIATION WHICH WOULD CAUSE FURTHER EVALUATION AND/OR CHANGE IN MANAGEMENT DIRECTION
c. Fish/Riparian habitat	R-4 GAWS analysis, vegetative composition and age class surveys	H/H	Annual to develop baseline, every 5 years as needed thereafter	As data collected	20% variation from specifications of Standards and Guidelines

Replace row c with the following:

ACTIVITIES, EFFECTS AND RESOURCES TO BE MEASURED	MONITORING METHOD	PRECISION/RELIABILITY	MEASUREMENT FREQUENCY	REPORTING METHOD	VARIATION WHICH WOULD CAUSE FURTHER EVALUATION AND/OR CHANGE IN MANAGEMENT DIRECTION
c. Fish/Riparian habitat	Vegetative composition and age class surveys, Dixie water quality monitoring plan, aquatic MIS habitat surveys per MIS monitoring	H/H	Annual to develop baseline, every 5 years as needed thereafter	As data collected	20% variation from specifications of Standards and Guidelines