

**Biological Assessment
of
Threatened, Endangered, and Proposed Plant Species
for the
Motorized Travel Plan Project
Preferred Alternative with Modifications**

Dixie National Forest

Prepared by: Brian Monroe Date: 3/17/09
Brian Monroe
Rangeland Management Specialist, Dixie National Forest

Reviewed by: Mark J. Madsen Date: 3-17-2009
Mark Madsen
Forest Botanist, Dixie National Forest

I. Introduction

This Biological Assessment (BA) analyzes the potential effects of the proposed **Motorized Travel Plan Preferred Alternative with Modifications (PAWM)** project on species listed as threatened, endangered, or proposed under the Endangered Species Act (ESA), and determines whether the likely effects on these species necessitates a formal consultation or conference with the U.S. Fish and Wildlife Service.

The objectives of this Biological Assessment (BA) include:

- 1) Ensure that Forest Service actions do not result in the loss of viability of any native or desired non-native plant or animal species, or create significant trends toward Federal listing of any species.
- 2) Comply with the Endangered Species Act (ESA) requirement that actions of Federal agencies not jeopardize or adversely modify critical habitat of federally listed species.
- 3) Provide a process and standard that ensures that threatened, endangered, and proposed species receive full consideration in the decision making process (FSM 2670.11 to 2671.45f).
- 4) Maintain documentation on actions regulated under the "Environmental Policy and Procedures Handbook" FSH 1909.15 chapter 40 (Environmental Assessments and Related Documents).

Table 1 shows the Federally listed plant species that may occur or has suitable habitat on the Dixie National Forest. Specific information regarding life histories and habitat requirements for species listed in Table 1 can be found on file at the Dixie Supervisor's Office, Cedar City, Utah (Rodriguez 2008).

Table 1. Species listed as Threatened (T) under the Endangered Species Act (ESA) that occur or have potentially suitable habitat on the Dixie National Forest, and their occurrence in or near the proposed Motorized Travel Plan project.

Species (<i>Scientific name</i>)	Habitat Suitability Based On:	Further Analysis?	Habitat currently in areas open to cross-country travel?
Last Chance Townsendia (<i>Townsendia aprica</i>)	Associated with pinyon/juniper and salt desert shrub communities on clay-silt soils of the Arapien, Mancos Shale, and associated shale lens formations in habitats that range in elevation from 6,000 to over 8,000 feet. Only known location on Dixie NF is on the Teasdale portion of the Fremont River Ranger District (formerly Teasdale Ranger District).	Yes	Yes

*Yes – The proposed project's potential effects on these species will be further analyzed in this document.

*No – No further analysis is necessary, and a determination of "No Effect" is rendered.

II. Consultation to Date

The U.S. Fish and Wildlife Service (FWS) was provided a list of Threatened, Endangered, and Proposed species by Ranger District that may occur on the Dixie National Forest on April 1, 2008. The FWS concurred with this list on April 2, 2008 (Table 2).

On March 10, 2009, Forest Service staff spoke to FWS staff to discuss the section 7 consultation process for the MTP project. The purpose of the discussion was to discuss the location of Last Chance Townsendia in relation to roads on the Teasdale Ranger District that may be decommissioned as part of MTP implementation. After further discussion it was determined that, the Forest Service would refine and clarify points relating to Last Chance Townsendia in the BA that was sent to the FWS on March 6, 2009 and received by the FWS on March 9, 2009.

On March 11, 2009, Forest Service staff met with FWS staff to clarify points in the BA and to discuss conservation measures that may be implemented Last Chance Townsendia.

Table 2. Threatened, Endangered, and Proposed Species that may occur on the Dixie National Forest.

Common Name	Ranger Districts¹
Last Chance Townsendia(<i>Townsendia aprica</i>) (Threatened)	D5

¹ D1 = Pine Valley Ranger District; D2 = Cedar City Ranger District; D3 = Powell Ranger District; D4 = Escalante Ranger District; D5 = Fremont River Ranger District (old Teasdale RD only)

*None known to occur on the Dixie NF. Downstream effects would be the only discussion if potential effects were possible.

III. Current Management Direction

Current policy is stated in the Forest Service Manual (FSM 2670.3) and includes:

- 1) Review actions carried out by the Forest Service to determine their potential effect on threatened, endangered, and proposed species.
- 2) Avoid actions that adversely affect listed species whenever possible.
- 3) Initiate consultation with the FWS when the Forest Service determines that a proposed activity may affect threatened, endangered, or proposed species or designated critical habitat.
- 4) Identify measures to prevent adverse modification of designated critical habitat or other habitats essential for the conservation of endangered, threatened, and proposed species.

Management direction specified by the Dixie National Forest Land and Resource Management Plan is to manage habitat for Federally listed species to maintain or enhance their listing status under the ESA by direct habitat improvement and agency cooperation. Objectives include managing habitats for the recovery of species listed under the Endangered Species Act (USDAFS 1986).

IV. Description of the Proposed Project

The **Dixie National Forest (DNF)** proposes to designate a system of authorized roads, trails, and/or areas for motor vehicle use in order to provide better protect natural resources, provide legal access, and improve recreation management and enforcement related to motor vehicle use. This purpose and need is in accordance with 36 CFR Parts 212, 251, 261 (which also incorporates Executive Orders 11644 and 11989), and 295 Travel Management; Designated Routes and Areas for Motor Vehicle Use; Final Rule. This Assessment addresses the effects of selection of the Preferred Alternative with Modifications (PAWM). The PAWM was developed as a result of internal and external comments after the release of the DEIS in June of 2008.

Activity: The proposed Action is to designate a motorized travel system that addresses the following four components:

1. Cross-country travel.
 - a. Prohibition of motorized cross-country travel (travel off designated roads or trails) except as specified for permitted uses (e.g., firewood gathering, allotment maintenance), emergency fire suppression, search and rescue activities, law enforcement activities, military operations, and Forest Service administrative uses and purposes.
2. Designation of authorized National Forest system Roads and motorized trails.
 - a. Closure of currently authorized routes that will not be designated for motorized use and will therefore be removed from the National Forest System of roads and motorized trails. All routes removed from the system will be decommissioned.
 - b. Designation of unauthorized routes that will be added to the National Forest System of roads and trails, thereby becoming authorized routes.
3. Designation of authorized uses of National Forest System roads and motorized trails.
 - a. Designation of routes that will be open to all uses,
 - b. Designation of routes needed to accommodate administrative activities and permitted uses,
 - c. Designation of routes needed for access to private lands, rights-of-way, easements, and other jurisdictions.
 - d. Designations of routes with seasonal restrictions or routes that only allow certain types of vehicles.
4. Construction or relocation of designated Nation Forest System roads and motorized trails.
 - a. Construction or relocation of routes to improve the transportation system or to respond to evaluation findings.

As authorized by Section 212.50 (b) of the Travel Rule, previous and pending decisions that allow, restrict, or prohibit motor vehicle use on National Forest System roads, trails, or areas have been incorporated into this travel management decision.

General Method of Analysis-Road Impacts on Habitat Availability:

For this analysis, miles of open motorized route within known and modeled habitat were quantified for each alternative. Road classifications are as follows:

- **Previous Decision:** Pursuant to 36 CFR 212.50 of the Travel Rule, 22 previous and pending decisions that allow, restrict, or prohibit motor vehicle use on National Forest System roads, trails, or areas have been incorporated as previously designated into this travel planning project (See FEIS Table 2-6 for a list of these decisions). Routes affected under previous decisions will not be analyzed for this project. They are included in the tables to demonstrate routes within habitat, but unaffected by this project.
- **0 - Decommissioned Road:** Road decommissioning may be completed through two approaches: active or natural revegetation. Techniques may include ripping, seeding, planting, placing rocks, signing, and recontouring routes. Mechanized equipment or hand crews may carry out these actions. Natural revegetation will include placement of barriers on the road or trail to prevent unauthorized access. The road area will be allowed to revegetate naturally.
- **1 - Basic Custodial Care (Closed):** These are Maintenance Level 1, which are open for private property access, permitted uses, or administrative access, but closed to the public.
- **2 - High Clearance Vehicles:** Open
- **3 - Moderate Degree of User Comfort:** Open
- **4 - Moderate Degree of User Comfort:** Open
- **5 - High Degree of User Comfort (Highway):** Open
- **6 - Seasonal:** Though these roads may be closed at times, they are considered open for this analysis.
- **Motorized trail:** Open
- **Non-Forest: (Private inholdings).** Acres of habitat reported include private land within the Forest boundary. Routes within these areas are not part of the Motorized Travel Plan, and are considered open.
- **Non-motorized trail**
- **Unauthorized:** These are user-created, non-system routes.

Open Routes: These are motorized routes currently open to or being used by the public. They include Maintenance Levels 2-6, motorized trails, non-Forest, and unauthorized routes.

Cross-Country Travel: Traveling across the country-side rather than on designated roads or trails.

Decommissioned Routes: Active decommissioning activities will not occur in occupied Last Chance Townsendia habitat. The area where this species has been identified on the Teasdale Ranger District has had a survey of suitable habitat and will not be affected by active decommissioning activities. To further ensure that active decommissioning activities will not affect this species, all active (ground disturbing) decommissioning activities associated with road closures and decommissioning will have a site-specific environmental analysis conducted on the action prior to ground-disturbing activities. The MTP has been designed to provide short- and long-term beneficial effects to listed species by limiting access to occupied habitats.

Location: The Motorized Travel Plan analysis area is located within the Dixie National Forest in southern Utah. The Forest is located in Garfield, Iron, Kane, Piute, Wayne, and Washington counties. There are currently four Ranger Districts managed by the Forest: Pine Valley, Cedar City, Powell, and Escalante. In March 2006, the Teasdale Ranger District on the Dixie National Forest and Loa Ranger District on the Fishlake National Forest were consolidated into the

Fremont River Ranger District. This new Ranger District is administered by the Fishlake National Forest, though the area that was the Teasdale Ranger District remains part of the Dixie National Forest. As this motorized Travel Plan was begun prior to the reorganization, the Teasdale portion of the Fremont River Ranger District is included in this analysis. The project area comprises approximately 1,970,647 acres.

Timing: For the purposes of this project, short-term effects are those that will occur within five years of beginning implementation, and long-term effects are considered as occurring five years or more after implementation.

Conservation Measures: In order to further protect and enhance this Threatened species on the DNF, the following conservation measures will be implemented:

- Site-specific NEPA and surveys will be conducted prior to project implementation for all roads and trails proposed for active (ground disturbing) decommissioning or closure.
- Barrier and/or closure signs will be placed at the junction of routes 30515 and G5159 (see attached map). The road surfaces in these areas would be left undisturbed and allowed to be reclaimed naturally. The placement of these barriers and/or signs would not create dust or impact individuals because there are no plants with at least 500 feet of the barrier/sign areas.

V. Existing Environment

Cumulative Effects Area (CEA)

The Cumulative Effects Area (CEA) delineated for plant species consists of 1690 acres. This area is located on and adjacent to the Teasdale portion of the Fremont River Ranger District (see-attached map). The species included in this analysis is only capable of inhabiting a small portion of this area due to the specific soils requirements and associated vegetation. The CEA represents a landscape area where past, present, and reasonably foreseeable future management actions by humans have and/or will occur with special reference to: motorized road access, fire suppression, livestock grazing, and fuelwood gathering.

Past, Present, and Reasonably Foreseeable Future Actions influencing Landscape Characteristics

Past and ongoing activities within species' CEA are summarized in Table 3. These include management activities associated with changes in vegetation from livestock grazing, motorized road access and special uses such as fuelwood gathering. Reasonably foreseeable future actions within the project area portion of the CEA that would most likely add cumulatively to activities associated with the motorized travel planning effort included livestock grazing, urban and recreational development on private and federal lands, recreation, special uses, and oil and gas development. A list of these activities is included within the project file. For the purposes of this project, short-term effects will occur within five years of implementation, and long-term effects are considered as occurring five years or more after implementation.

Table 3. Summary of habitat availability within the Project Area (PA), Cumulative Effect Area (CEA), and direct impacts to habitat (in acres) from past and present management actions. Acres of potential habitat are approximate. Please refer to individual species accounts for habitat requirements. The Project Area includes the entire Dixie National Forest (NF) and the Teasdale portion of the Fremont River Ranger District managed by the Fishlake NF.

Species	Habitat	Total Habitat Available within PA (Acres)	Cumulative Effects Area (Acres)	Past and Present Management Actions within PA	
				Livestock Grazing (Acres)	Recreation, Leases, & Special Uses (Types)
Last Chance Townsendia	pinyon/juniper on heavy clay soils	200	1690	200	Hiking, biking, ATV, OHV, fuelwood gathering

Species Account, Life History, and Habitat Status

There is one known documented occurrence of Last Chance Townsendia on Miners Mountain on the Teasdale portion of the Fremont Ranger District. Existing and potential habitat for this threatened plant on the Dixie NF within the project area is approximately 200 acres in size.

The “Life History and Analysis of Endangered, Threatened, Candidate, Sensitive, and Management Indicator Species of the Dixie National Forest” (Rodriguez 2008) is a comprehensive description of life histories and habitat requirements for species that occur or have habitat within the Motorized Travel Plan project area. Principle habitats described in this assessment were used to assess the plant habitat conditions for the project. The following review of existing condition is a brief synthesis of information contained in this document. Potential effects and determinations are based in part upon the Last Chance Townsendia information presented in this document. Rodriguez (2008) is hereby incorporated by reference.

Last Chance Townsendia (*Townsendia aprica*)

The PAWM alternative address the existing routes adjacent to the Last Chance Townsendia population and its’ existing and potential habitat on the Teasdale portion of the Fremont River Ranger District. Under the No Action Alternative, which is the current allowable access, 1.6 miles of existing routes would remain open to all uses within Last Chance Townsendia habitat. Also, at present, cross country travel is permitted over the entire 200 acres of existing (3 known plant sites) and potentially suitable habitat. Under the PAWM only 1.1 miles of existing routes would remain open, and all cross country travel will be prohibited. Current vehicle use in this part of the District is very low, however, the existing routes do come close to occupied habitat for Last Chance Townsendia.

VI. Effects of the Proposed Action

Last Chance Townsendia (*Townsendia aprica*)

Direct/Indirect Effects

Table 4 illustrates how the PAWM would impact Last Chance *Townsendia* individuals and its' existing and potential habitat.

Table 4. The impact of roads and trails within potential and existing *Townsendia aprica* habitat for the No Action Alternative (A) and the PAWM.

Alternative	Miles Road Open to All Uses	Open to cross country travel
No action	1.6	200 acres
PAWM	1.1	0 acres

An area of 200 acres has been identified as being potentially suitable habitat for Last Chance *Townsendia* with 44 acres of this containing the three known plant locations. The routes to be closed within the 200 acres of potentially suitable habitat and existing Last Chance *Townsendia* habitat are routes 30515 and G5159 (see attached map). Both routes are located within the 200 acre potentially suitable area with route 30515 being 0.29 miles long and route G5159 being 0.19 miles long. The closure/decommissioning will occur at the junction of route 30513 and route 30515 and at the junction of G5159 and 30513 (see map). There will be no disturbance to Last Chance *Townsendia* individuals or its' habitat due to road closures and/or decommissioning. These routes are designated as classified closed and unauthorized closed, respectively, and both will be reclaimed naturally (inactively decommissioned) under the PAWM Alternative. There will be a barrier and closure sign placed at these junctions. The road surfaces would be left undisturbed and allowed to be reclaimed naturally. There are no Last Chance *Townsendia* individuals within 300 feet of these closure junctions. The nearest individuals to these activities are at least 500 feet from the junction of route 30515 and route 30513. Therefore, Last Chance *Townsendia* individuals would not be impacted by dust resulting from placing a closure sign and a barrier at each junction point. Route number 30513 was designated open before this analysis began and will remain open.

Motorized traffic creates the potential for transporting noxious weeds and invasive species seeds into Last Chance *Townsendia* habitat (USDA 2001). An invasion of noxious and invasive species could degrade the habitat near the Last Chance *Townsendia* population. The PAWM would result in the closure of motorized cross-country travel within the 200 acres of existing and potentially suitable habitat. Reducing access will decrease habitat fragmentation, exposure to human disturbance, potential noxious weed infestation, and increase overall habitat effectiveness for Last Chance *Townsendia* individuals and potentially suitable habitat. The closure of routes 50515 and G5159 would not likely increase use on the primary route 50513 because this area is seldom used by the public or administratively. The PAWM project provides a mechanism for Objective 1.2 in the Last Chance *Townsendia* Recovery Plan (USFWS 1993) to be accomplished on the Dixie National Forest. This objective, as outlined in the Recovery Plan, states that "The Bureau of Land Management, Forest Service, and National Park Service should develop off-road vehicle use plans that prohibit off-road vehicle use on *T. aprica* habitat." (USFWS 1993, p. 10).

Cumulative Effects

The cumulative effects of past, present, and reasonably foreseeable future recreation, livestock grazing, and general development (for special uses, private property development, fuelwood gathering) would affect the habitat for Last Chance *Townsendia* within the CEA. The

cumulative effects of these actions have and will continue to have limited impacts to the effectiveness and availability of habitat within the CEA. A reduction in motorized access will improve habitat effectiveness over the short and long-term, and have beneficial effects on potentially suitable habitat by reducing disturbance, habitat fragmentation, and potential noxious weed infestations.

Determination

Given the net reduction of motorized access and elimination of cross-country travel, implementation of the PAWM would lead to short and long-term beneficial effects to Last Chance Townsendia habitat. Therefore, implementation of the PAWM *may affect, but is not likely to adversely affect* Last Chance Townsendia (*Townsendia aprica*).

VII. Determination

As a result of this analysis, it is our professional determination that implementation of the proposed Motorized Travel Plan Preferred Alternative with Modifications (PAWM) *may affect, but is not likely to adversely affect* Last Chance Townsendia (*Townsendia aprica*).

VIII. Management Recommendations

Follow direction in the approved 1993 Last Chance Townsendia Recovery Plan (USFWS 1993).

IX. Best Available Science

The techniques and methodologies used in this analysis are considered the best available science. The analysis includes a summary of the credible scientific evidence which is relevant to evaluating reasonably foreseeable adverse impacts. The analysis also identifies methods used and references scientific sources relied on. The conclusions are based on the scientific analysis that shows a thorough review of relevant scientific information, a consideration of responsible opposing views, and the acknowledgment of incomplete or unavailable information, scientific uncertainty, and risk.

The best available science is a composite of several key elements. The elements of science used are:

- On-site data and history.
- Scientific literature. Literature reviewed and cited is listed in the appendix and included within the Life History paper (Rodriguez 2008).
- Field survey and inventory by Mark Madsen that is summarized in the Threatened, Endangered and Sensitive Plant Survey and Inventory Report, 2004.

- Professional knowledge, judgment and experience.

X. References

- Rodriguez, R. L. 2008. Life history and analysis of endangered, threatened, candidate, sensitive, and management indicator species of the Dixie National Forest. Version 5.0. Dixie National Forest, Cedar City, UT.
- USDAFS. 2004. TES Plant Survey & Inventory Report – 2004 Field Season. Dixie National Forest, Cedar City, UT.
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- USFWS. 1993. Last Chance Townsendia Recovery Plan. U.S. Fish and Wildlife Service – Region 6. 1993.

XI. Contributors

- Brian Monroe, Rangeland Management Specialist, Cedar City Ranger District, Cedar City, UT.
- Mark Madsen, Botanist, Dixie National Forest, Cedar City, UT.
- Ron Rodriguez, Wildlife, Fish and Rare Plants Program Manager, Dixie and Fishlake National Forests, Cedar City, UT.
- Matt Lee, Cartographer, Dixie National Forest, Cedar City, UT.
- US Fish and Wildlife Service, Salt Lake City Field Office