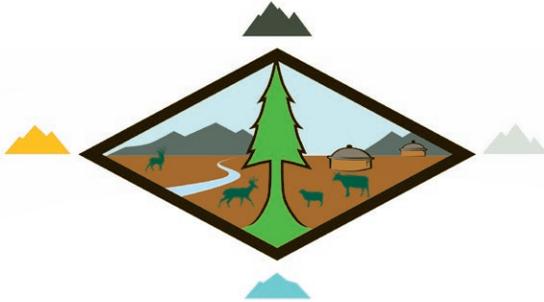


# NAVAJO FORESTLANDS IRMP



Managing Our Land  
Resources Collectively for the Diné

## NAVAJO NATION INTEGRATED RESOURCES MANAGEMENT PLAN

July 2018

**DRAFT**





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Resources Collectively for the Diné

# INTEGRATED RESOURCE MANAGEMENT PLAN

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# TABLE OF CONTENTS

Acknowledgments..... 5  
Executive Summary..... 7  
How This Document is Organized..... 13

## Section 1

Introduction & Identification of Forestland Areas..... 17  
Integrated Resource Management Planning ..... 26  
Laws & Codes Pertaining to Resource Management Planning..... 28  
Planning Context: Relationship to Future Resource Management Planning & Activities Under the IRMP ..... 29

## Section 2

The IRMP Development Process..... 33  
Primary Themes ..... 46  
Resource Management Issues in the Forestlands..... 46

## Section 3

The IRMP Development Process..... 53  
Development of Integrated Resource Management Options..... 55  
Preferred Integrated Resource Management Option ..... 61

## Section 4

Implementation – Moving Forward..... 73  
Conclusion..... 75

## Appendices

- Appendix A: Resource Assessment Section
- Appendix B: Community Engagement Information: Brochure, Fact Sheet, Meeting Flyers & Press Releases
- Appendix C: Community Survey Responses
- Appendix D: Community Meeting Poster Boards
- Appendix E: Potential Integrated Resource Management Options Voting Results

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## ACKNOWLEDGMENTS

The Navajo Forestlands IRMP is the result of a collaborative, future oriented planning effort between Navajo Nation staff, coordinating agencies and the public. This document represents the ongoing commitment from the members of the IRMP's Interdisciplinary Planning Team (ID Team) to engage in constructive conversations about how to manage and protect the array of natural, cultural, community and economic resources issues considered as part of the five Navajo Forestland areas. This IRMP contains the vision, goals and recommendations the Navajo people developed for the Forestland Areas that should be implemented to ensure the sustainability of these resources for the future and for the advancement of the Navajo Nation as a whole. The following individuals played a key role in development of the IRMP through their participation in the interdisciplinary planning team and by providing their time, expertise and insight:

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We would also like to extend a special thanks to the Chapters that hosted IRMP Community meetings, by providing event space, equipment and assistance in setting up and packing up facilities.

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# EXECUTIVE SUMMARY

The Draft Navajo Forestlands Integrated Resources Management Plan (IRMP) is a strategic plan for the comprehensive management of the land based resources for the following five forestland areas: 1.Chuska Mountains 2. Defiance Plateau 3. Carrizo Mountain 4. Mount Powell 5. Navajo Mountain. These five areas were selected based on the need for future management planning, availability of resource data and the opportunity to benefit from multi-resource management planning. The IRMP document creates a unified approach for managing the forestland areas from a holistic, multi-resource benefit perspective by addressing opportunities for increased collaboration. The Vision, Goals and Recommendations developed as part of the IRMP process and the Preferred Integrated Resource Management Option provide direction for land managers and the community before future planning and projects are conducted in the forestland areas.

The Draft Navajo Forestlands IRMP is the result of thirteen months of collective participation from Navajo Nation Division of Natural Resources Departments, the Bureau of Indian Affairs, Navajo Region, the public at large, and from community members representing the 27 local chapters bordering the IRMP project area. Their participation resulted in over several hundred comments received for development of the Vision, Goals and the Preferred Integrated Resource Management Option that will guide implementation of this IRMP over the next 15-20 years. Participants engaged in this process through various engagement opportunities and methods including:

- Participation in the Interdisciplinary Planning Team
- Chapter and Farm Board Meeting Attendance
- Regional Community Meeting Attendance
- Completion of the Community Survey
- Participation on the project's website and Facebook, Twitter and Instagram accounts

## IRMP FORESTLANDS PROJECT VISION & GOALS

The Vision for the Navajo Forestlands IRMP is provided below. The goals for the IRMP are below:

“The Navajo Nation manages, protects, conserves, and enhances forestlands for the people, using an interdisciplinary and integrated approach for all resources.”

### Navajo Forestlands IRMP Goals

1. Strengthen the preservation and incorporation of Navajo culture, traditional ways and values
2. Increase active forest management for the benefit of multiple natural resources
3. Enhance the resiliency of the forestlands to disturbances, changing environmental conditions and climate change
4. Create economic development opportunities
5. Provide education and outreach to the community
6. Improve compliance with current laws and regulations regarding permits
7. Improve enforcement with current laws and regulations
8. Increase rangeland management to ensure adequate grazing for wildlife and livestock
9. Conservation and protection of wildlife and their habitat
10. Provide an adequate, safe water supply for people, livestock and wildlife to ensure water security for the future
11. Improve communication and coordination between NN Departments and BIA/Federal Government
12. Identification and maintenance of key forestlands access roads
13. Balanced recreation development with sound management of areas

## **PREFERRED INTEGRATED RESOURCE MANAGEMENT OPTION**

The Preferred Integrated Resource Management Option represents the management approach and philosophy, goals and recommendations developed through the community engagement process and ID team review. It provides the strategic guidance for the IRMP and prioritizes specific goals and recommendations that should be carried out for future integrated management in the forestland areas. The Preferred Integrated Resource Management Approach is entitled: Active Land Stewardship By and For the Diné.

The Preferred Integrated Resource Management Option reflects the deep cultural relationship of the Navajo people with the forestlands and the resources within them. It recognizes the role the forestlands play in the Navajo Peoples' economic livelihood, their traditions and in helping to meet local community needs. It emphasizes land stewardship and wise use of resources to ensure they can remain resilient to changing conditions and be available for families and future generations. It provides guidance to the Navajo Division of Resources Departments to address needs for more active management of natural resources and increased enforcement of existing regulations to restore and rehabilitate degraded forestland areas, and to maintain future revenue generation potential of key resources.

## **PREFERRED INTEGRATED RESOURCE MANAGEMENT OPTION PRIORITIZED GOALS & RECOMMENDATIONS**

There are nine goals that have been prioritized as part of implementation of the Preferred Integrated Resource Management Option. These nine goals will be advanced through the 75 recommendations identified in the Preferred Integrated Resource Management Option section of this document.

1. Strengthen the preservation and incorporation of Navajo culture, traditional ways and values
2. Increase active forest management for the benefit of multiple natural resources
3. Conservation and protection of wildlife and their habitat
4. Create economic development opportunities
5. Strengthen the ability of the forestlands to recover from disturbances, changing environmental conditions and climate changes
6. Improve rangeland management to ensure adequate grazing for wildlife and livestock
7. Provide an adequate, safe water supply for people, livestock and wildlife to ensure water security for the future
8. Provide education and outreach to Navajo Communities
9. Improve enforcement of current laws and regulation

Overarching recommendations are also included as part of this document to provide guidance to more complex, systemic issues that need to be addressed across the Navajo Nation Government; across natural resource departments and within local communities.

Development of the Vision, Goals and the Preferred Integrated Resource Management Option reflects knowledge obtained from a detailed resource assessment of the five forestland areas (Chuska Mountains, the Defiance Plateau, Carrizo Mountain, Mount Powell and Navajo Mountain) that provides a comprehensive overview of the existing natural, cultural, community and economic resources. The Resource Assessment provides important context related to resource conditions, management planning and community issues, data availability, trends and opportunities for future collaboration. Review of Chapter Land Use Plans (20 plans available from the 27 chapters) provided the project team with supplementary information on the goals, objectives and priorities identified by the communities for future community, economic and infrastructure development and resource considerations adjacent to the Forestland Areas.

The Navajo Forestlands IRMP document, through its Community Vision, Goal and Preferred Integrated Resource Management Option provides the Navajo Nation with a strategic roadmap for future integrated management that begins with presenting the process and document for consideration and approval by the Navajo Nation Council Resources and Development Committee. Following approval, advancement of the Vision, Goals and Recommendations developed as part of this document should occur by undertaking the specific actions identified in the implementation section of this report.

The IRMP documents in detail, the process, methods and formats used for development of the IRMP. Example materials used for outreach and at community meetings are included as appendices to this document. Additional project development materials will remain on the project web site after this project closes out. The Navajo Forestlands IRMP process presents an opportunity to serve as a template for future management planning and for the design of varied methods for communicating and engaging community members in decisions that affect their values and their livelihood.



# HOW THIS DOCUMENT IS ORGANIZED

This document is designed to provide information on the process and results associated with development of the Navajo Forestlands Integrated Resource Management Plan. It is organized in different sections to provide context, to document the process and lay out the foundation for future use and authority to implement the document. Specific appendices are included in this document to serve as technical resources for understanding conditions, issues and the regulatory framework for future management planning, collaboration and decision making.

## **Introduction:**

This section provides an overview of the decision to create the IRMP, information on IRMP planning, laws pertaining to the IRMP and its future application. It provides an overview of the Navajo Nation, and introduces the five forestland areas and the scope of the planning effort.

## **IRMP Development Process:**

This section of the document describes the project development process, the primary issues and concerns with management of the forestlands, the community engagement process & resulting themes. It identifies the Vision and Goals associated with management of the Forestland Areas for the future.

## **Development of Integrated Resource Management Options:**

This section of the document introduces the Community First Methodology used to work with Resource Managers and the Community to develop potential future management options for the Navajo Forestlands and details the process for selection and development of the Preferred Integrated Resource Management Option.

## **Preferred Integrated Resource Management Option:**

This section presents the IRMP Preferred Integrated Resource Management Option in full, detailing the management philosophy, goals and recommendations to be applied for future management of all the resources within the Navajo Forestlands Project area. The Preferred Integrated Resource Management Option is a product of the community and resource department participation in this process and provides the strategic guidance for future implementation of this IRMP.

## **Implementation:**

This section of the document summarizes the results of the IRMP Project development process and outlines next steps for advancing approval and use of the document. It identifies key activities to enhance the overall collaborating relationships that have been built through this process and highlights larger multi-disciplinary planning efforts that should be undertaken individually, or as a part of future resource management planning activities.

## **Technical Appendices:**

The appendices associated with the Draft IRMP provide detailed technical analysis and documentation of methodology and materials that support the processes and outcomes associated with development of the IRMP document. The Resource Assessment is one such accompanying appendix that provides in-depth detail and maps about resource use, existing conditions, extent and issues associated with each resource in each of the five forestland areas. It identifies current management organization, planning efforts and opportunities to integrate best practice management methods.



# SECTION 1

## **INTEGRATED RESOURCES MANAGEMENT PLAN**

Introduction & Identification of Forestland Areas

Integrated Resource Management Planning  
(Defined, Use, History & Purpose)

Laws & Codes Pertaining to Resource Management  
Planning (overview)

Planning Context: Relationship to Future Resource  
Management Planning & Activities under the IRMP



# INTRODUCTION & IDENTIFICATION OF FORESTLAND AREAS



The primary objective for development of the Navajo Forestlands IRMP was to bring together resource managers across the Division of Natural Resources (DNR) and with BIA coordinating resource departments to develop an integrated management approach for the five Navajo Forestlands areas that are supported and developed through consultation with the Navajo communities. Ultimately the goal of the Navajo Forestlands IRMP is to create a balance within natural resource management actions that reflects the social, cultural, economic, and natural resource values of the Dine' people.

The Navajo Forestlands Integrated Resource Management Plan (IRMP) is a strategic plan for the comprehensive management of the land-based resources of the five forestland areas identified by this document. The process undertaken to develop the IRMP provides a method for the Navajo Nation to collectively evaluate the relationships among the various components of the natural resources and their various uses, economic impacts and trends, cultural needs, and social forces and should serve a model for future management planning & implementation of projects.

Quite typically, resource management and other tribal departments focus on their individual goals, priorities and actions and carry out their work through sporadic coordination with other departments. Too often, this results in conflicts between departments, divisions and the communities. It also creates project inefficiencies and lost opportunities to create greater impact through collaboration and sharing of goals.

The IRMP development process recognizes that the lands that comprise the Navajo Nation are whole, living systems with multiple interdependencies that require collaboration to ensure protection and use of natural and cultural resources, and to satisfy community, economic development and sustenance needs.

The IRMP document creates a unified approach to managing the forestland areas that serves as a tool for future land management activities and reduces potential conflicts. The Vision, Goals and Recommendations developed as part of the IRMP process and the Preferred Integrated Resource Management Option serve as the touchstone to provide guidance for land managers and the community before future planning and projects are conducted.

- It provides the Navajo Nation with a long-range vision for how its Nation's resources should be managed for the next 15-20 years
- It provides specific goals and recommendations to set the Vision into action
- It identifies opportunities to enhance organizational and cross-departmental communication
- It provides a framework for future implementation
- It serves as a common communication tool between local Chapters and Resource Managers
- The Navajo Forestlands IRMP also serves as a leadership tool for Resource Managers and the Division of Natural Resources as a whole.

## NAVAJO NATION SETTING

The Navajo reservation was established in 1868 and has expanded through a series of executive orders becoming the largest Indian reservation in the United States. On April 15, 1969, the tribe changed its official name to the Navajo Nation, which is also displayed on the seal. It is larger than the State of West Virginia and six other states. The Navajo Nation encompasses more than 27,000 square miles including portions of Arizona, New Mexico and Utah (see Figure 1.1). (see Figure 1.2).

### DEMOGRAPHICS

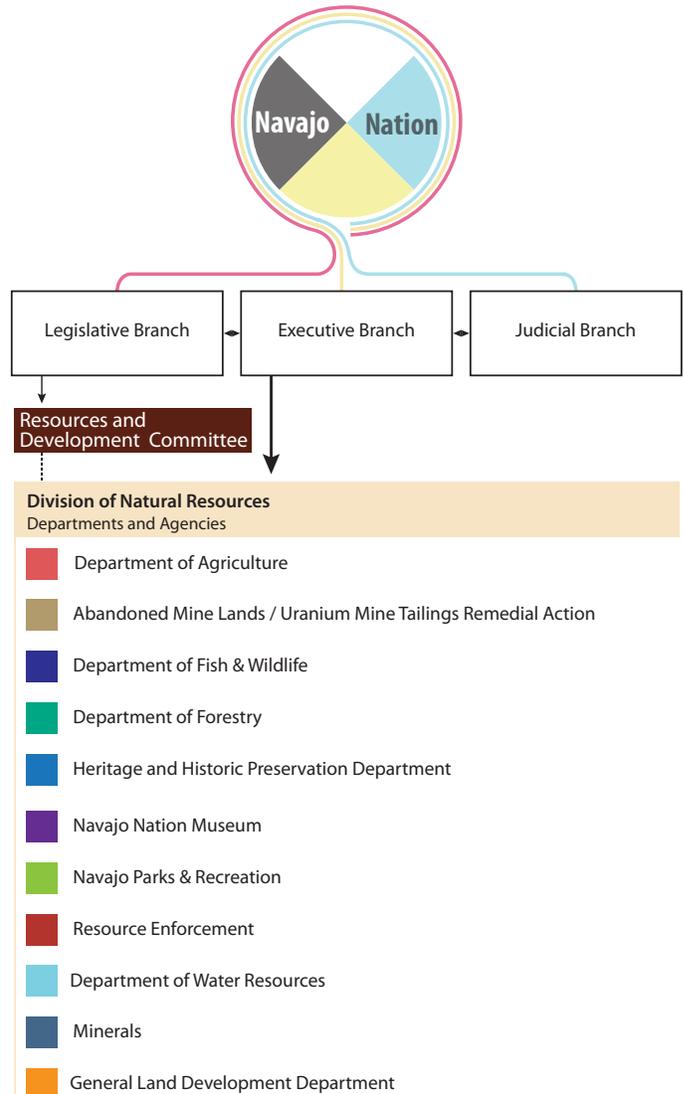
According to the U.S. Census Bureau, the population on the Navajo Nation in 2010 was 173,667. Of these people, 43,694 (25%) resided in the 27 Forestlands Area Chapters. The median age for the Navajo Nation is 28.5; while in the Forestlands Area Chapters, the median age by chapter ranges from 20.9 to 49.1. In addition, the American Community Survey (2012-2016) of the U.S. Census Bureau has calculated that of the Navajo Nation people Age 16+, 44.1% are in the labor force; of those, 20.4% are unemployed. A more detailed discussion of the demographics for the forestlands area is included in the socioeconomic section of the Resource Assessment.

### GOVERNANCE

Federal Law and Navajo Nation Law govern the protection, use and management of natural resources for each Department. Navajo Nation government consists of a three-branch system that includes the executive, legislative and judicial branch. The Division of Natural Resources falls within the Executive Branch of the Navajo Nation Government. Approval of resource planning documents, such as the Navajo Forestlands IRMP are considered through the Resources and Development Committee. The Resource Assessment section of this document (see Appendix A), provides detail on the framework and decision-making authority of regulating agencies.

In addition, the Navajo Nation is divided into 110 chapters, which are units of local government that under Title 26 of the Navajo Nation code, delegates to Chapters governmental authority with respect to local matters consistent with Navajo law, including custom and tradition. As part of the Local Governance Act, local chapters are able to acquire, develop and manage land within their chapter boundary through coordination with appropriate departments, committees and the Council.

Figure 1-1. The Navajo Nation Divisions of Natural Resources



## TERRAIN

The Navajo reservation is semi-arid tableland, with an average elevation of approximately 6,000 feet, from the lowlands of about 4,500 feet to over 10,000 feet in the two mountain belts which intersect the reservation. There is a wide variety of terrain: arroyos, deep canyons, rocky and sandy plains, buttes, mesas, and sheer cliffs. Vegetation includes: pine, aspen, oak, and fir in the higher altitudes; sagebrush, greasewood, pinon, and juniper in the plateaus; and desert flora in the lower altitudes. Flowing streams and natural reservoirs are rare. Seasons are extreme: temperature fall to minus 35 degrees in the winters and exceed 110 degrees in the summers. Annual rainfall ranges from less than 6 inches in the Little Colorado Valley to near 30 inches in the Chuska Mountains; the average annual precipitation for the Nation is between 10 to 12 inches.<sup>1</sup>



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<sup>1</sup> "Water Organizations in a Changing West" Teresa M. Showa, Department of Water Resources Management, Navajo Nation, Natural Resources Law Center University of Colorado School of Law Boulder, Colorado June 14-16, 1993

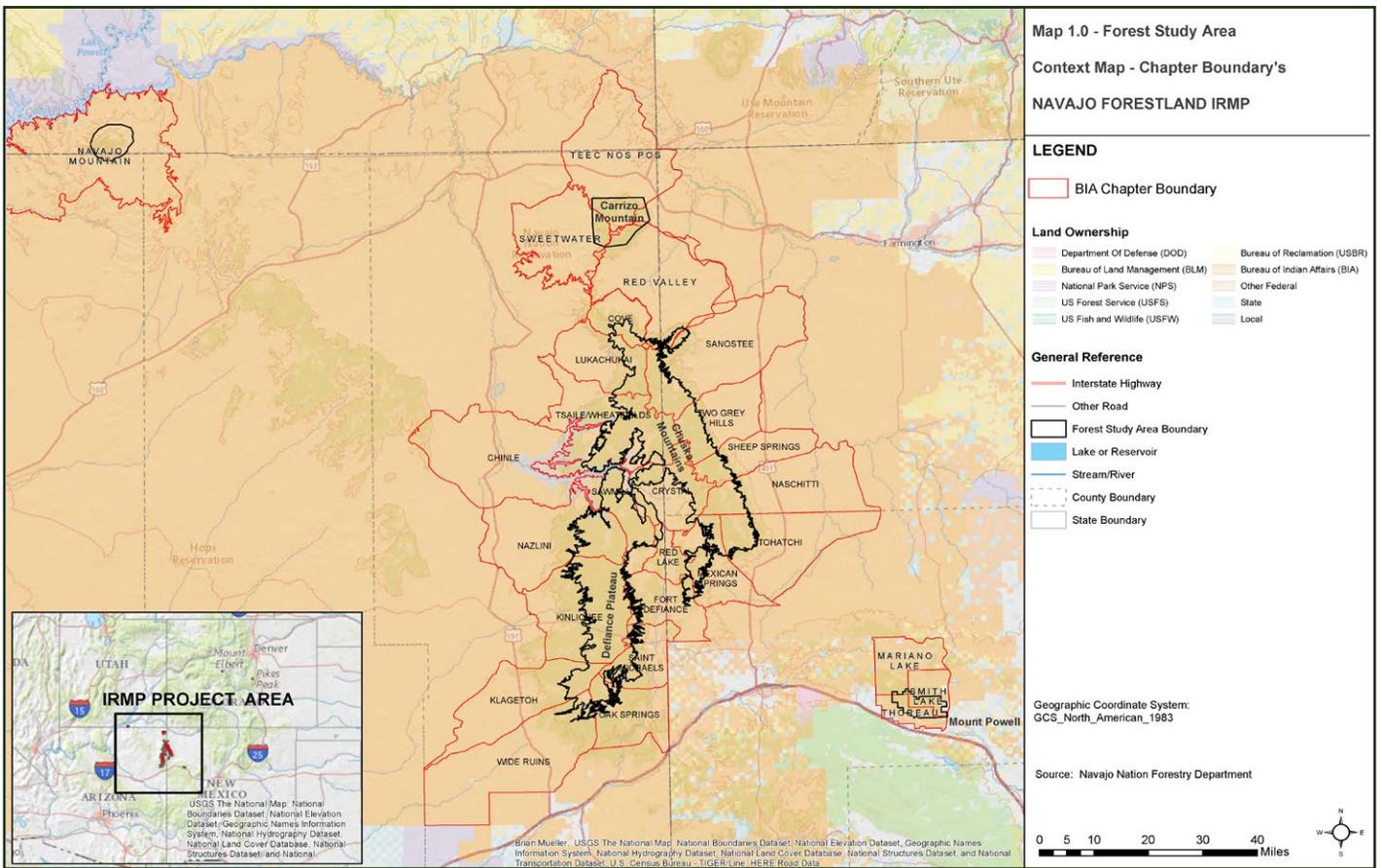
# IDENTIFICATION OF THE FORESTLAND AREAS

The IRMP Project includes 705,878 acres of Navajo Forestlands within the following five areas:

- |                                      |                             |
|--------------------------------------|-----------------------------|
| <u>Commercial Forest:</u> 607,404 AC | <u>Satellite Forest:</u>    |
| Defiance Plateau: 270,467.6 AC       | Navajo Mountain: 25,960 AC  |
| Chuska Mountains: 336,940.5 AC       | Mount Powell: 22,136 AC     |
|                                      | Carrizo Mountain: 50,378 AC |

Figure 1-2. The Navajo Forestlands IRMP Project Areas

Source: Esri Delorme NAVTEQ USGS, Intermap, iPC, NRCAN, Esri Japan, METI, Esri China (hong Kong), Esri (Thailand), Tom Tom, 2013



The above five forestland areas were selected based on need for future management planning, availability of resource data and the opportunity to benefit from multi-resource management planning.

The following section provides an overview of each of the five forestland areas that are contained within the scope of this planning effort.

Development of the Navajo Forestlands IRMP includes a high-level assessment and evaluation of the following resources and activities:

- Soils & Geology
- Mining and Minerals
- Fish & Wildlife
- Water Resources
- Air Quality
- Cultural Resources & Sacred Sites
- Land Users
- Infrastructure
- Recreation
- Homesites
- Agriculture & Rangeland Management
- Forests
- Vegetation
- Community Development Activities

The information obtained from the Resource Assessment provides a clear picture of the current state of the Navajo Nation Forestland areas within the Chuska Mountains, Mount Powell, Carrizo Mountain, the Defiance Plateau and Navajo Mountain. Existing planning documents, maps and corresponding data were collected from Resource managers and other Department personnel to produce the Resource Assessment section of this document. Information obtained from the Resource Assessments was shared with the community to help identify issues & concerns and evaluate preferred management options for the future. Detail on the specific resources within the five forestland areas is provided in the Resource Assessment section of this document (see Appendix A).



## FORESTLAND AREA SETTING

This IRMP considers five distinct forestland areas under management. These include Defiance Plateau, Chuska Mountains, Navajo Mountain, Mount Powell, and Carrizo Mountains. Each forestland area has distinct ecological characteristics, natural and cultural resources, and communities.

The following chapters are within both the Defiance Plateau and Chuska Mountains forestland boundaries; Chinle, Fort Defiance, Red Lake, Sawmill, and Crystal. Red Valley Chapter is within both the Chuska and Carrizo Mountains forestland boundaries.

### DEFIANCE PLATEAU

Defiance Plateau is a north-trending plateau in Apache County, Arizona. "The Defiance Plateau is a broad, flat-topped ridge that extends about 40 mi long by 10 mi wide. The plateau is highest in its average elevation at the rim of Canyon De Chelly, around 7,400 feet, the highest point is Fluted Rock (south of the canyon), with an elevation of almost 8,000 feet and then drops to around 7,000' at its southern terminus near Houck, AZ.<sup>2</sup>" The plateau borders the Painted Desert, the Puerco River, the Black Mesa, the Chinle Valley and Chinle Creek, and has three canyons, the most notable being Canyon de Chelly National Monument.

Defiance Plateau is in the upper Sonoran zone. This area belongs primarily to the Lower Colorado River watershed. The highland, forested areas of the plateau contribute a significant amount of surface flow to this watershed. Water scarcity in this area impacts Navajo traditions, culture and livelihoods. The plateau contains some of the most productive forestry areas within the Navajo Reservation comprised majoritively of ponderosa pine forest. "For centuries, the Navajo people have valued the forest as being the provider for the necessities of life. The forest provides food, wood products for homes, other dwellings, corrals, fence posts, ceremonial need, firewood, and habitat for deer and other wildlife.<sup>3</sup>"

This forestland wholly or partially contains the following chapters: Wide Ruins, Klagetoh, Nazlini, Kin Dah Lichii, Chinle, Oak Springs, Saint Michaels, Fort Defiance, Red Lake, Sawmill and Crystal.

Important economic, cultural and historic locations within this forestland include Canyon de Chelly National Monument and the Navajo Capital, Window Rock. Canyon de Chelly National Monument is a cultural and historic monument operated by the United States National Park Service in tandem with the Navajo Nation. The canyon lands are a hybrid of protected Ancestral Puebloan archaeological sites and active domestic use, agricultural practices and rangelands. Most areas within the park require a ranger or an authorized Navajo guide. Canyon de Chelly was a home for the Navajo people for centuries. It was first invaded by colonial forces in 1805 and then again in 1863 by Kit Carson resulting in the surrender of the Navajo and their forced relocation to Bosque Redondo, NM. This forestland is also close to the Navajo Capital, Window Rock, Arizona. Window Rock serves as the location for the Navajo Central Government and many cultural and community centers.



<sup>2</sup> Mikesic, D. (2000). *The Navajo Nation Management Plan for the Mexican Spotted Owl (Strix Occidentalis Lucida)*. [ebook], Window Rock, Arizona 86515: Navajo Nation Department of Fish and Wildlife, p.18. Available at: [https://www.nndfw.org/nnhp/docs\\_reps/nn\\_mso\\_man\\_plan.pdf](https://www.nndfw.org/nnhp/docs_reps/nn_mso_man_plan.pdf) [Accessed 10 Nov. 2017].

<sup>3</sup> Yazzie, V.R. *The values and uses of the Navajo forest (1987)* <http://www.nal.usda.gov/>

## CHUSKA MOUNTAINS

The Chuska Mountains forestland is situated on the eastern portion of the Navajo Nation and on the Arizona-New Mexico border. The forestland is characterized by the Chuska Mountains, a range of steep sandstone and volcanic peaks reaching up to 10,000 feet and canyons containing broad, shallow lakes and ephemeral streams. The mountains are bordered by the San Juan Basin to the east and Red Rock Valley to the north. The Chuska Mountains are considered to represent the male deity of the Diné religion. "It is traditional belief that the earth is sacred. The Chuskas are believed to signify the body of a reclining man. According to the medicine men informants, various spiritual and physical ailments are diagnosed to require either "male" or "female" treatment for their patients. These treatments may require either "male" or "female" medicines and/or ceremonies. Therefore, sources for "male" medicine herbs are restricted to the "male mountain", the Chuskas.<sup>4</sup>"

The Chuska Mountains are in the upper Sonoran biome. "The climate of the Chuska Mountains is continental and semi-arid. Precipitation is dominated by summer convective storms associated with the North American monsoon, with highly variable winter precipitation.<sup>5</sup>" The Chuska Mountains contain some of the few native headwaters on the Navajo Nation and feed the San Juan watershed. Water scarcity in this area impacts Navajo traditions, culture and livelihoods. The Chuska Mountains make up a majority of commercial forestland on the Navajo Nation. While there are some homesites already established with leases in the forestlands, from when families brought their livestock to the summer range, they are now prohibited in highly sensitive areas such as the Area 1 forestland (see homesite lease regulations (17.05)).

Lower elevations are comprised of pinon-juniper woodlands; mid elevations are dominated by ponderosa pine forests with inclusions of wet mixed conifer or spruce-fir on north-facing aspects. As early as 974 AD trees from this area were logged and transported to build important historic cultural centers such as Chaco Canyon.

This forestland wholly or partially contains the following chapters: Chinle, Tsaile/Wheatfields, Fort Defiance, Red Lake, Sawmill, Crystal, Sanostee, Red Valley, Lukachukai, Cove, Two Grey Hills, Sheep Springs, Tohatchi, Twin Lakes and Mexican Springs. These chapters are within the Fort Defiance, Shiprock.

Important economic, cultural and historic locations within this forestland include the trading posts at Crystal and Two Grey Hills, and New Mexico Highway 134 and Narbona Pass. The trading posts are associated with unique Navajo rug patterns. Narbona pass is the location of a historic battle where Navajo warriors defeated a Mexican slaving expedition.



<sup>4</sup>Yazzie, V.R. *The values and uses of the Navajo forest* (1987) <http://www.nal.usda.gov/>

<sup>5</sup>Guiterman, Christopher H. *Climatic Sensitivities of Navajo Forestlands: Use-Inspired Research to Guide Tribal Forest Management*. School of Natural Resources and the Environment Laboratory of Tree-Ring Research, University of Arizona. *Climate Assessment of the Southwest Climate & Society Fellowship Final Report*, 2015. <http://www.climas.arizona.edu/sites/default/files/pdfclimas-fellow-finalreport2014guiterman.pdf>

## NAVAJO MOUNTAIN

The forestland is characterized by the Rainbow Plateau and Navajo Mountain and is in one of the most remote parts of the Navajo Nation. The Navajo Mountain Chapter covers about 389,000 acres and is home to about 1300 residents. The chapter is situated in Coconino and Navajo Counties in northern Arizona and San Juan County in southern Utah. This unique situation has caused some conflict within the chapter because of a lack of balance of funding between the states and counties.

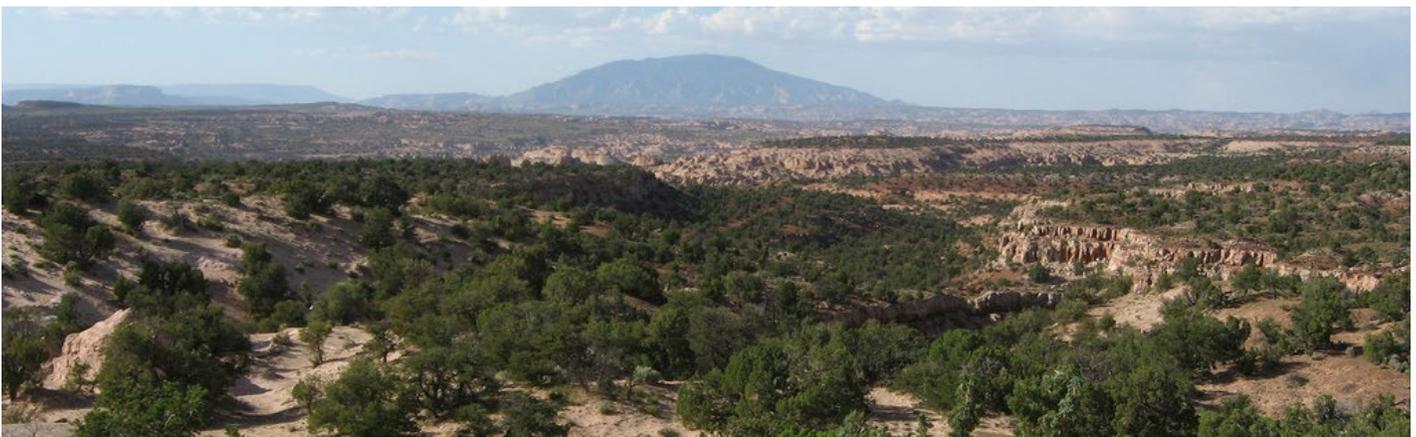
Navajo Mountain is a laccolith, a dome-shaped igneous rock that intruded into the sedimentary layers and lifted up the overlying layer. It is the highest point in the Navajo Nation at 10,388 feet. The Diné call this place the Head of the Earth Woman - the head of the female/pollen deity. Navajo Mountain figures prominently as the first settlement area in western Navajo origin stories. Ascent of the mountain is prohibited. The forestland is near Lake Powell and Glen Canyon National Recreation Area, the confluence of the San Juan and Colorado Rivers and Rainbow Bridge National Monument. "Prior to the construction of the dam, Navajo chanters would make pilgrimages to Rainbow Bridge [Tsé naní'áhi] and the nearby confluence of the San Juan [Tooh] and Colorado [Tónits'ósíkooh] rivers, perform ceremonies to bring rain and leave offerings to the Holy People [diyin diné].<sup>6</sup>"

Navajo Mountain Chapter contains an upper montane of mixed conifer forest on Navajo Mountain. The Navajo Mountain beardtongue (*Penstemon navajoa*) is a rare plant limited mainly to the upper elevation slopes of Navajo Mountain<sup>7</sup>. The only stand of limber pine (*Pinus flexilis*) located in Navajo country is found on Navajo Mountain.

This forestland wholly or partially contains the Navajo Mountain Chapter. This chapter is within the Tuba Agency.

Important economic, cultural and historic locations within this forestland include Ancestral Puebloan archaeological sites, historically and culturally significant landmarks, adjacency to Lake Powell and Rainbow Bridge National Monument and potential tourist economies, and great natural beauty.

Economic and public health challenges in this area include poor road conditions which pose a major hindrance to economic growth and infrastructure, and water scarcity which impacts Navajo traditions, culture and livelihoods.



<sup>6</sup><http://navajomountain.navajochapters.org/>

<sup>7</sup>The Nature Conservancy - <http://explorer.natureserve.org/servlet/NatureServe?searchName=Penstemon+navajoa>

## MOUNT POWELL

Mount Powell forestland is located in McKinley County, New Mexico in the Southeast Colorado Plateau and within the Zuni Mountains, near New Mexico HWY 40 and Route 371. The Colorado Plateau in New Mexico includes the San Juan Basin, a major source of oil, gas, coal and uranium for New Mexico. The northwest-trending Zuni Mountains form the southwestern margin of the San Juan Basin. Mount Powell bisects the continental divide and is situated on top of a prominent mesa. The forestland is characterized by deeply steep walled mesas, deeply cut drainages and grassy bottomlands. The forest consists of open-woodlands composed of drought-adapted conifers on the high rims, with extensive areas of shrub steppe on the lower interior regions. Mount Powell is located in a semi-arid climate zone characterized by periods of drought and irregular precipitation, relatively warm to hot growing seasons, and long winters with sustained periods of freezing temperatures. The biome is Colorado Plateau shrub – steppe.

This forestland wholly or partially contains the following chapters: Mariano Lake, Thoreau, and Smith Lake. These chapters are within the Eastern Navajo Agency. Mariano Lake has the highest average elevation of any chapter on the reservation.

Important economic, cultural and historic locations within this forestland include nearby Hosta Butte, a significant history of mineral extraction and abandoned mines. The mining boom started in Baca/Prewitt.

## CARRIZO MOUNTAIN

The forestland is characterized by the Carrizo Mountain, a semi-circular range of mountains north of the Chuska Mountain Range in Arizona and New Mexico. The biome is Great Basin desert scrub.

This forestland wholly or partially contains the following chapters: Sweetwater (Tolikaan), Teec Nos Pos, Beclabito, and Red Valley. These chapters are within the Shiprock Agency.

Important economic, cultural and historic locations within this forestland include a significant history of mineral extraction and abandoned mines. “East, north, and northwest of the Carrizo Mountain, the surface has low relief and is easily accessible, with only a few scattered buttes and mesas; whereas southwest and south of the mountains the surface is rugged and much dissected by canyons with intervening steep-walled mesas. Patches of dune sand are common on the less dissected parts of the area. The climate is semiarid. Stream channels, most of which are dry during a large part of the year, radiate from the mountains and ultimately join the San Juan River north of the area.<sup>8</sup>” “The area lies in the San Juan Basin of the Colorado Plateau and is characterized by mountain slopes, deeply cut drainages and grassy ridges. The transition from the ponderosa pine woodlands of the Carrizo Mountain to the desert scrub of the San Juan Basin floor is rapid and sharply defined. Alluvial fans formed because of stream deposition off the steep northern slopes of the mountains tilt northeast into the San Juan River. The alluvium material is dissected with washes and dry streambeds, offering topographical diversity and relief at lower elevations.<sup>9</sup>”



<sup>8</sup>Stokes, W. L. *Carnotite Deposits in the Carrizo Mountains Area, Navajo Indian Reservation, Apache County, Arizona, and San Juan County, New Mexico.* United States Department of the Interior, Washington DC. May 1951

<sup>9</sup>TWerito 1988 - As quoted in *Beclabito Chapter Community-Based Land Use Plan. Beclabito Chapter, Shiprock, NM and JJ Clacs and Company Fort Wingate, NM.* December, 2011 (Page 33)

# INTEGRATED RESOURCE MANAGEMENT PLANNING

## DEFINED

An Integrated Resource Management Plan (IRMP) is a high level planning document that provides strategic guidance for comprehensive management of its land-based resources. It does not prescribe specific resource management actions, rather it directs what should be implemented in the future and how and why. The process of developing the IRMP requires an evaluation of the relationships among various natural resources and their uses, and considers how the community, cultural and economic components are impacted. The ultimate goal of an IRMP is to create a balance within natural resource management actions which reflect the social, cultural, economic, and natural resource values of reservation residents.

To this end, an IRMP goes beyond the natural world and incorporates social, cultural, environmental, and economic aspects of the Navajo Nation into the selected management option. It encourages active participation by those with a vested interest in the management of the Nation's resources. The goal of integrated resource management planning is to tie all decisions which affect a tract of land together so that each decision's impact can be weighed against all others. It identifies conflicting and complimentary management actions.<sup>10</sup>

Furthermore, the IRMP is a representative statement of Navajo sovereignty that describes through its vision, goals and policy recommendations (the Preferred Integrated Resource Management Option) how the forestlands areas should be managed for the future.



## Integrated Resource Management

An approach to reservation resource management which takes a whole system approach, viewing all resources—natural, social, cultural, and economic—as being interrelated in such a manner that management actions directed at one resource also affect others.

## USE

The Forestlands IRMP operates through the lens of achieving balance among often competing uses to achieve the greatest benefit for management of the land now and for the future. The use of the IRMP transcends many traditional land management domains by considering the following:

- It is based on issues, concerns & solutions identified by the Community & Resource Department representatives
- It lists the goals for the future, and develops recommendations to better manage resources for the benefit of the Navajo people as a whole
- It provides guidance for future development of resource plans & activities
- It provides a mechanism for prioritizing projects by examining the relationship between elements and identifying the most balanced approach

<sup>10</sup> BIA Guidelines for Integrated Resource Management Planning in Indian Country.

## HISTORY

The Dine' people have been practicing holistic resource management for centuries. Part of their traditional lifeways includes the recognition and belief that land management is comprised of multiple, complete living systems that thrive or deteriorate based upon the individual activities that occur on the land. This is recognized by the Navajo through their exercise of the Diné Fundamental Laws, and more specifically, the Dine Natural Law.

For decades resource managers have recognized the interrelationships among individual resources and have collaborated when appropriate to achieve shared objectives. In 1988, the Bureau of Indian Affairs undertook an initiative to recommend development of IRMP's for tribal land management. By the early 1990's passage of the Indian Forestry and Agriculture acts directed that forest and agricultural plans comply with tribal IRMPs. By 1993 and again in 2003 an Indian Forestry Management Assessment Team, under direction of Intertribal Timber Council, identified integrated resource management plans as a high priority for management of Indian resources. In recent years, development of IRMP's in Indian country has been

identified as a high priority for the BIA (in coordination with each tribe) to ensure coordinated and integrated resource management. As BIA funding has become available, the BIA has provided grants or matching funding support for development of IRMPs.

## PURPOSE

The Navajo Division of Natural Resources & Department of Forestry undertook this planning effort because they were looking for a cross-departmental, multi-resource management perspective for how the Nation's forestland areas should be managed for the future. The intent was to develop the Forestlands IRMP through coordination with the community and local chapters. Their objective was to maintain an open and transparent process whereby, community concerns and ideas for future management were integrated into development of the IRMP. Their methods and approach to achieving this objective is further defined in the community engagement section of this document. Funding to undertake development of the Forestlands IRMP was made available through a grant with BIA.

Figure 1-3. Purpose & Anticipated Benefits of Coordinated Planning



# LAWS & CODES PERTAINING TO RESOURCE MANAGEMENT PLANNING

The Navajo Forestlands IRMP Project is directed through The National Indian Forest Resources Management Act (P.L. 101-630) and its implementing regulations, 25 CFR Section 163, which require the BIA and/or tribal governments to properly manage Indian forest lands. 25 CFR, Section 163.11 (b) which states that forest management planning for Indian forestland shall be carried out through participation in the development and implementation of integrated resource management plans which provide coordination for the comprehensive management of all natural resources on Indian lands.

Title 2 of the Navajo Nation Codes, Section 501 (b) (7), authorizes the Resources and Development.

Committee of the Navajo Nation Council to report studies of natural resources for the protection and efficient, utilization, management, administration, and enhancement of the Nation's Resources. The Resources and Development Committee is the approval body for the IRMP.

This law specifies that an integrated approach to resource management is necessary. Numerous other federal laws and Navajo Nation laws apply to the development and implementation of the IRMP. Federal regulatory requirements are imposed on resource managers which direct management actions and standards associated with implementation of the IRMP.

This IRMP does not change any federal or Navajo Nation regulations, but can be used to meet stipulations included within them as they relate to strategic planning.

Laws and/or regulations that exclusively or specifically pertain to a particular resource category are discussed in the appropriate resource assessment section of this document.

All work carried out as a result of development of the Navajo Forestlands IRMP shall be consistent with the following policies and guidelines, in addition to all laws and regulations:

- Indian Self-determination and Education Assistance Act (PL 93-638), as amended
- National Environmental Policy Act of 1969, [U.S.C.A. Sec. 4321 et. seq.] as amended and the implementing regulations issued by Council on Environmental Quality (40 CFR Parts 1500-1508)
- 53 Indian Affairs Manual (53 IAM) and supplements thereto
- American Indian Religious Freedom Act, P.L. 95-341, Stat. 469 [1978]

- National Indian Forest Resources Management Act, P.L. 101-630, [25 CFR Section 163]
- American Indian Agricultural Resource Management Act, P.L. 103- 177
- Clean Air Act 42 USC 7401
- Comprehensive Environmental Response 42 USC 9601 Hazardous substances (Superfund)
- Compensation and Liability Act (CERCLA)
- Emergency Planning and Community Right 42 USC 11001 Endangered Species Act 16 USC 1531
- Federal Insecticide, Fungicide, and 7 USC 136 Pesticide use and control Rodenticide Act (FIFRA)
- Federal Water Pollution Control Act (Clean 33 USC 1251 Restoration & Maintenance Water Act)
- Resource Conservation and Recovery Act (RCRA) 42 USC 6901
- Safe Drinking Water Act (SDWA) 42 USC 300
- 2008 Farm Bill – Food, Conservation, and Energy Act of 2008 (PL 107-110-246; 7USC 1926)
- Toxic Substance Control Act (TSCA) 7 USC 136 Control of toxic substances 15 USC 2601
- National Historic Preservation Act 16 USC 470
- Navajo Nation Cultural Resources Protection Act [19 NNC § 1001 et. seq.]
- Native American Graves Protection and Repatriation Act of 1990 (P.L. 101-601; 25 USC 3001.)
- Navajo Nation Policy to Protect Traditional Cultural Properties [2010]
- All Applicable Navajo Laws and Regulations

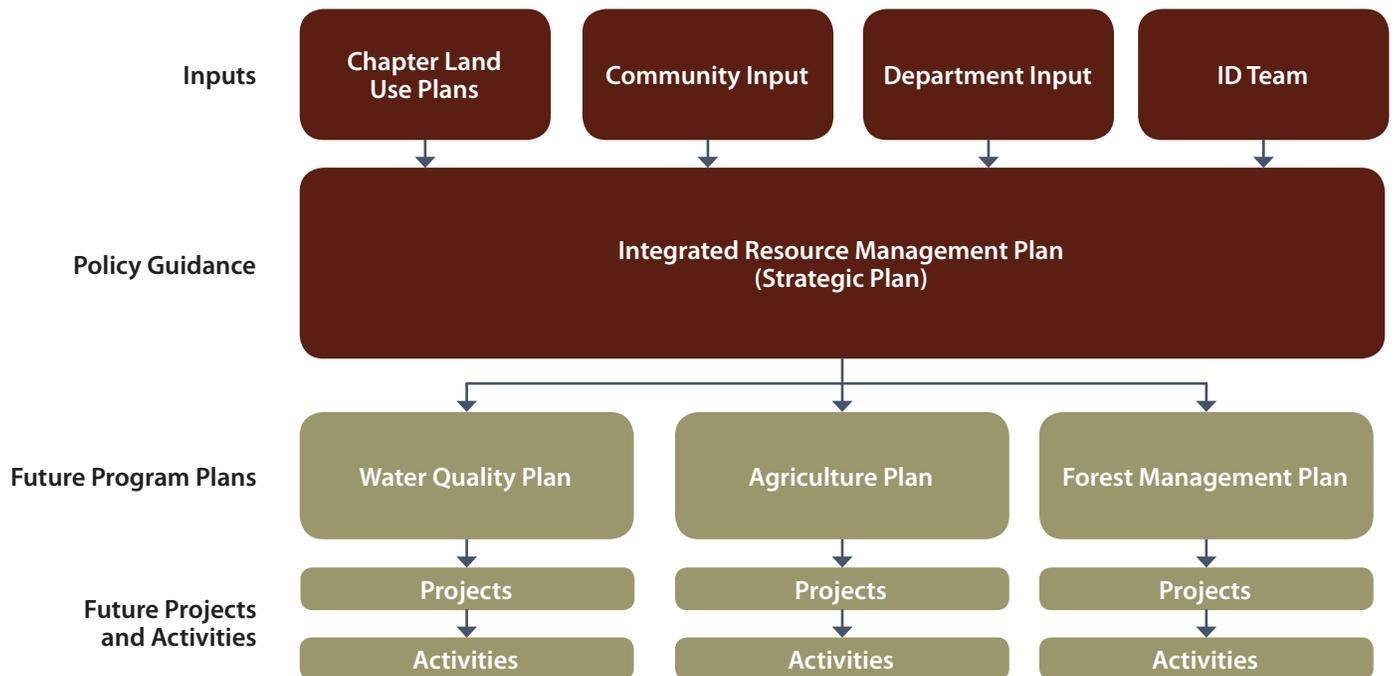
# PLANNING CONTEXT: RELATIONSHIP TO FUTURE RESOURCE MANAGEMENT PLANNING & ACTIVITIES UNDER THE IRMP

The Navajo Forestlands Integrated Resource Management Plan provides the Navajo Nation Division of Natural Resources with a Long Term Strategic Plan for the five forestland areas (Chuska Mountains, the Defiance Plateau, Mount Powell, Carrizo Mountain, and Navajo Mountain). It provides specific guidance and a desired future management approach pertaining to the development, use and protection of Navajo Nation Forestland Resources. Development of future resource management plans, projects and activities should consult with the Navajo Forestlands IRMP Vision, Goals and Policy Recommendations identified through the Preferred Integrated Resource Management Option to ensure alignment between the IRMP and future resource management. Coordinating federal and state agencies, local chapter efforts & other Navajo Nation Departments shall consult with the Navajo Forestlands IRMP before undertaking resource planning and implementation projects within or adjacent to the five forestland areas.

The IRMP does not supersede existing laws, regulations or management plans. The IRMP provides recommendations through the Preferred Integrated Resource Management Option that directs resource management activities to work with a more holistic management mindset to consider the impacts, benefits and tradeoffs associated with resource management activities. The IRMP summarizes the existing conditions and primary issues and concerns identified by the community and by the divisions and departments responsible for managing the Nation’s natural and cultural resources.

The Resource Assessment section of the IRMP document documents the condition of the natural, cultural, social and economic resources of the Forestland Areas and the adjacent communities and additionally offers best practices that should be integrated into future resource management planning and implementation of projects.

Figure 1-4. IRMP Development & Future Application





# SECTION 2

## INTEGRATED RESOURCES MANAGEMENT PLAN

The IRMP Development Process

Primary Themes - Resource Management Issues in  
the Forestlands



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# THE IRMP DEVELOPMENT PROCESS

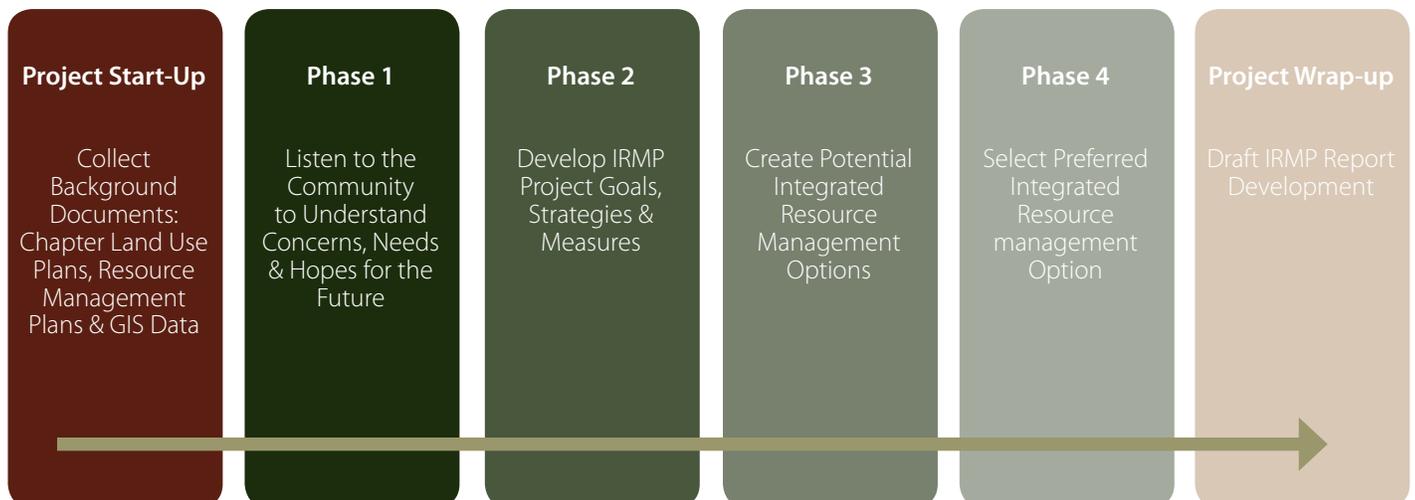


Development of the Navajo Forestlands IRMP involved design of an integrated plan development process that includes establishment and use of an interdisciplinary planning team and extensive community engagement to identify the issues, concerns, goals and objectives for future management of the five Navajo Forestland Areas. The following section details the project phasing, use of the interdisciplinary planning team, community engagement format, materials, timing and how those results were used to develop the IRMP project vision, goals and the Preferred Integrated Resource Management Option for future management of the IRMP Forestland Areas.

## PROJECT DEVELOPMENT PROCESS

Development of the Navajo Nation Forestlands Integrated Resource Management Plan occurred over a period of thirteen months beginning in June of 2017. Project Development was split into four distinct phases, integrating key intervals for community participation into the development of the document.

Figure 2-1. Project Development Process



## INTERDISCIPLINARY PLANNING TEAM

At the onset of the project, it was decided that an interdisciplinary planning team (ID Team) would be created to work with the community, across the Navajo Nation divisions and departments responsible for managing the Nation's natural and cultural resources and with the consultants for development of the IRMP. The objective was to begin to model the value and benefits of cross-departmental collaboration and sharing of resource knowledge. The role of the individual ID team member was to provide technical resource management expertise, offer insight into specific project components and to serve as the representative decision-making body for their resource department. ID team members were also tasked with serving as an IRMP project ambassador by sharing information with the public and in their communities.

ID team members were selected through coordination with the Director of the Division of Natural Resources and the Director of the Navajo Forestry Department. The Interdisciplinary Planning team was comprised of 29 members representing the departments listed to the right. In addition, the ID Team included a community/organization representative. Representatives from the Bureau of Indian Affairs were also part of the process to offer resource management expertise and feedback on project development.

**The Interdisciplinary Planning Team was comprised of one or members from the following departments, agencies and the community:**

- Navajo Division of Natural Resources
- Forestry
- Fish & Wildlife
- Heritage & Historic Preservation
- Agriculture
- Water Resources
- Lands
- Resource Enforcement
- Minerals
- Parks & Recreation

US Department of the Interior Bureau of Indian Affairs

- Forestry
- Agriculture
- Mining

Community Representative



The ID team shared regular, bi-weekly conference calls over the course of the 13-month project, and four on-site, in-depth planning sessions to provide insight, materials review and direction for development of the IRMP. Meetings with specific resource department staff were conducted throughout the project to collect resource data, documents and management information.

On-Site ID Team Workshops were conducted to complete the following:

1. Project Kick off & Resource Interviews
2. Identify Issues & Prioritize Goals & Objectives
3. Develop Management Options
4. Develop the Preferred Management Option

ID team members attended Chapter and Farm Board meetings and attended each of the regional community meetings. They also served as project ambassadors at regional community meetings to answer questions, discuss development of the IRMP project and provide technical resource information to the public.



ID Team Workshop: Working Across Departments to Develop Management Options

## COMMUNITY PARTICIPATION PROCESS & SUMMARY

Beginning with the decision to develop the Navajo Forestlands IRMP, it was decided that the Forestlands IRMP project needed to be built by listening to the voices of the Navajo people that use and reside in the community near and/or adjacent to the five forestland areas or that had a significant interest in how these collective resources should be managed for the future. The forestland boundaries spans over 700,000 acres and is adjacent to/near 27 local chapters, so participation in plan development by these communities was highly desired.

Community engagement efforts were first targeted towards the 27 Chapters within or touching the forestlands as identified by the Navajo Nation Forestry Department. As it was understood that forestland management impacts all Navajo, input from all Navajo people was encouraged and welcomed.

A key early deliverable for the planning effort was the Community Engagement Plan which outlined the format, various audiences and methods for outreach. Early efforts included commitment from the Navajo Nation Division of Natural Resources and coordinating departments to the planning process and for development of the ID Team.

Subsequent efforts included a series of activities aimed at project framing, building a communication infrastructure, branding and developing materials and methods for the dissemination of information throughout the project. Some of those methods and materials are described below.

### PROJECT MARKETING

#### Logo development

The purpose of developing a project logo was to create a recognizable brand for the planning effort that distinguished the project from other agency logos and/or planning efforts. The project logo was a symbol that represented the project's purpose. The logo was created by Duran Washburn, a Navajo Graphic Artist and was refined with input and feedback from the ID Team. It represents the forestland areas and is bordered by the four sacred mountains. A slogan accompanies the logo which defines the overarching intent of the Navajo Forestlands IRMP: "Managing Our Land Resources Collectively for the Dine'." The project team used the logo and slogan on all presentation and outreach material during the project. It remains available for use for future project work and IRMP implementation.

#### Collateral

A project brochure was created for distribution at community meetings and other public events. The brochure contained the vision of the project, a brief project description, the geographical and resource areas to be covered and opportunities for community participation. Contact information, social media links and the project website address were provided as part of the brochure.

A Navajo/English Project Fact Sheet was created to provide an overview of the project and community participation opportunities. The information was listed first in Navajo, then English.

Project postcards were created and distributed to provide quick links to addresses of the website and social media links. The collateral is included in Appendix B.

#### Social Media

Social Media outlets were used to keep community members informed of project development activities. Notice of upcoming community meetings, meeting minutes and other project development materials were posted on the project website, with alerts being sent to followers on Facebook, Twitter and Instagram accounts. The social media addresses for the IRMP project are as follows:

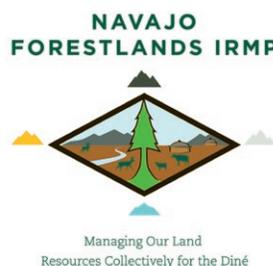
Website: <https://navajoirmp.wixsite.com/irmp>

Facebook: @navajoforestlandsirmp

Twitter: @NNForestIRMP

Instagram: Navajoforestlandsirmp

Figure 2-2. Navajo Forestlands IRMP Logo & Slogan



## IRMP PROJECT VIDEO

A professional project video describing the IRMP Project was produced and shown at regional community meetings and posted on the project website throughout the project. The video was produced in Navajo language with English subtitles. It remains available for viewing on the project website.

## NAVAJO INTERPRETATION SERVICES

### Oral Interpretation

It was identified early in the project that Navajo interpretation was a critical component for community engagement, and for reaching as many Navajos as possible. Joanna Manygoats provided Navajo interpretation services throughout the project. Ms. Manygoats was present at the meetings held at the chapter houses, the community regional meetings and open houses. She presented project materials, led discussions and responded to questions and comments from the audience in Navajo and English. She also transcribed meeting notes and comments from Navajo to English. Translated materials were made available at meetings, on request and on the project website.

### Printed Material Interpretation

Other printed materials concerning the IRMP project were produced in both English and Navajo. These included a project fact sheet that was distributed at community meetings. An interpretation of comments made in Navajo were included in the meeting minutes to the project team for inclusion on the project website and for use in developing the IRMP.

## COMMUNITY SURVEY

### Design

The Navajo Forestlands IRMP project launched an anonymous, detailed community survey on August 25, 2017 to obtain feedback from the Navajo Nation community members on their current use of the forestlands, issues and concerns, and future goals and objectives. The survey included 51 questions covering a broad range of questions related to the use and management of forestland resources and how things might need to shift in the future. A comment section was provided for respondents wanting to share specific thoughts and ideas. The survey was reviewed and revised by the ID Team before distribution.

To increase survey participation, the project team offered an incentive for completing the survey. Survey respondents were able to enter into a raffle for a \$100 Wal-Mart gift card. The winner of the gift card was Cecelia Yazzie.

### Distribution

The survey was available online through the Survey Monkey website via a link from the project website. In addition, paper copies were distributed and collected at Chapter and Regional Meetings, the Navajo Nation Fair, the Division of Natural Resources (DNR) Summit and other events. The survey closed to responses on December 31, 2017. Complete survey question results can be found in Appendix C.

### Summary of Survey Results

During the four months that the survey was open for responses, approximately 128 surveys were completed. The demographics associated with the survey respondents include:

Table 2-1. Survey Responses

Gender	Age
Male: 46%	18 – 24: 3%
Female: 52%	25 – 44: 25%
Prefer Not To Answer: 2%	45 – 64: 45%
	65+: 25%
	Prefer Not To Answer: 2%

Survey responses came mostly from the older age groups with 70% of respondents being age 45 and older. In comparison, the median age of residents of the Navajo Nation is 30.5 years (U.S. Census 2011-2016 American Community Survey)

Table 2-2. Survey Responses

Employed	Enrolled Members
Yes: 54%	Yes: 97%
No: 52%	No: 3%
Prefer Not To Answer: 7%	
Residence	
Yes On Navajo Nation: 84%	
No: 14%	
Prefer Not To Answer: 2%	

Table 2-3. Survey Responses

Chapter Representation
118 of 128 surveys designated a Chapter of residence
83 responses came from project targeted Chapters (70% of those who designated a Chapter)
<ul style="list-style-type: none"> <li>20 of the 27 project targeted Chapters have a response</li> </ul>
Toadlena/Two Grey Hills: 16 surveys
Tohatchi: 11 surveys

Table 2-4. Survey Responses

Forestry Department/Division of Natural Resources Employment
Yes: 25%
No: 75%

Table 2-5. Survey Responses

Which of the 5 Forestlands Areas is closest to residence
Chuska Mountains closest for 56% of respondents
All 5 areas have at least 5 survey responses

The survey inquired about specific activities conducted in the forestlands. More than one response was allowed. The activities in order of participation are:

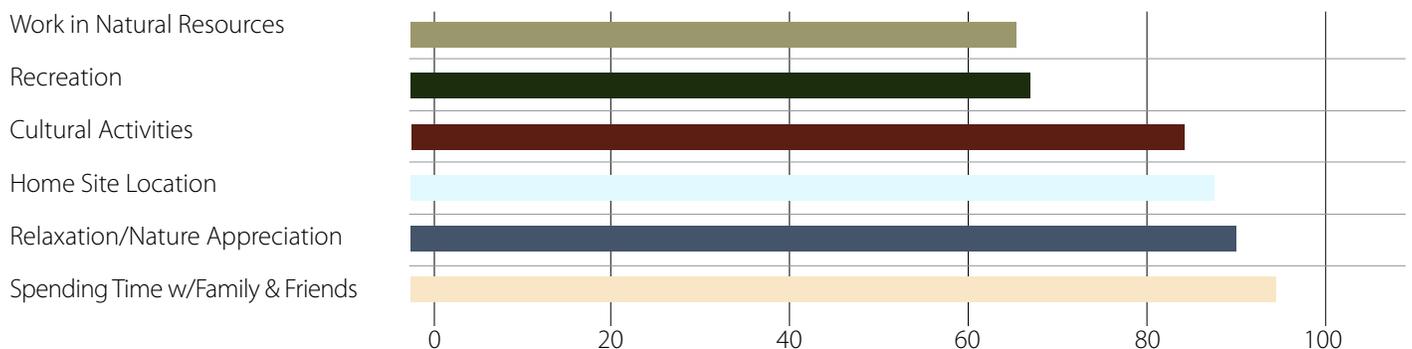
Table 2-6. Specific Activities Conducted in the Forestlands

Rank	Activity	% Participating
1	Collecting Firewood	80.5%
2	Recreation (hiking, running)	68.8%
3	Nature Viewing & Education	65.6%
4	Cultural Activities	58.6%
5	Ranching / Grazing	55.5%
6	Water Access	46.9%
7	Medicinal Plant Gathering	46.1%
8	Fishing	40.6%
9	Hunting	24.2%
10	Other (homesite, camping, etc.)	14.8%

**Below are various key points from the survey responses:**

The primary reasons survey respondents go to the forestlands are to spend time with family and friends and to relax and appreciate nature. Following closely are homesite location and for cultural activities.

Figure 2-3. The Primary Reasons Survey Respondents go to the Forestlands (% Answering Extremely Important/Important)



Goals for the future management of the forestlands were ranked by importance. The results show the two overarching goals:

Table 2-7. Survey Responses

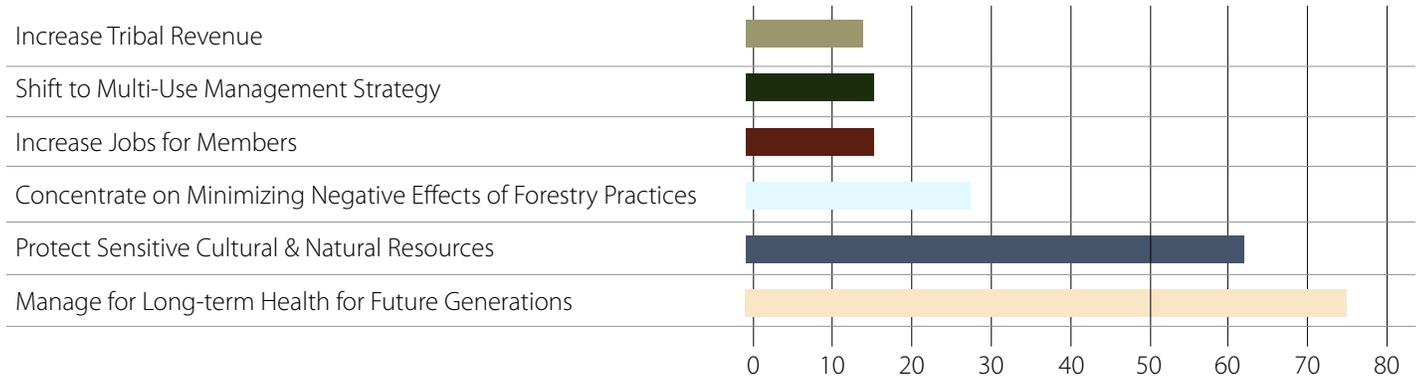
**Which of the 5 Forestlands Areas is closest to residence**

1. Manage for long-term health for future generations (74.6% responding this goal was Extremely Important or Important).
2. Protect sensitive cultural and natural resources (62.5%). Other goals listed each received less than 30% responding Extremely Important or Important

Figure 2-4. Survey Response - Top Forestland Goals

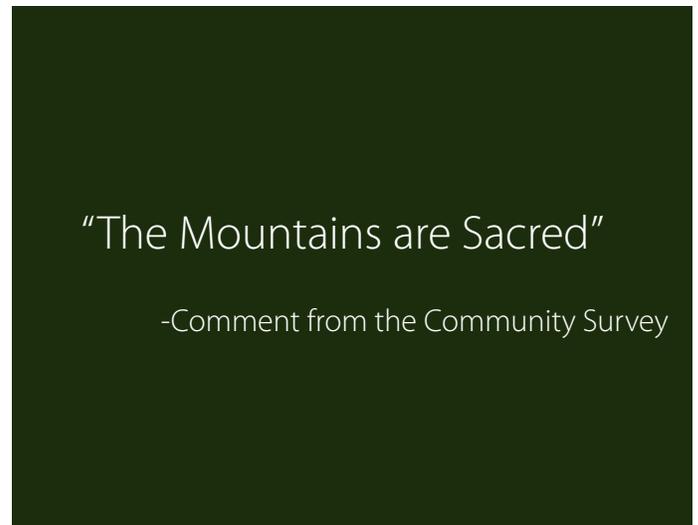
**Top Forestland Goals**

(% Answering Extremely Important/Important)



Other points taken from the analysis of the survey responses and added into the IRMP development include:

- Respondents want the forests managed through timber sales and prescribed burns.
- Many people (81%) collect firewood with 44% collecting five cords or more per year.
- Climate Change has been felt on the Navajo Nation; respondents feel that summer is hotter, temperatures higher throughout the year and there is less precipitation.



- Water security is a critical concern on the Navajo Nation:
  - 60% report having sufficient potable water; though
  - 45% have seen decreases in the amount of water available.
  - Water quality has become an issue with many comments reporting water contamination from various sources.
  - As many on the Navajo Nation remain without access to water at their homesite, thus having to haul water from wells, respondents would like to have water delivery infrastructure development.
- Fishing is not currently a source of food but many would like fishing areas developed and lakes stocked. To accomplish this, respondents see the need for little increase in fishing regulations, but emphasize more enforcement of current regulations. There has been an observed decrease in the fish population.
- Hunting is a source of food for half of the survey respondents; hunting is mainly for big game such as deer and elk. Half of the respondents would like to see hunting developed, but with this development would want hunting regulations and enforcement of the regulations increased.
- Most respondents felt that the forestlands are not currently supporting or are unsure if the forestlands are able to support wildlife species. However, 88% say it's Important/Extremely Important to monitor wildlife populations and their habitats. Respondents have observed decreased wildlife populations over the years or have no opinion on population levels.
- Just over half (53%) feel that homesite expansion should be restricted to certain areas within the forestlands.
- The survey also asked about recreation opportunities and development:
  - While 68.8% go to the forestlands for recreation, 44% felt that the Navajo Nation should maintain the current level of recreation available, with another 38% wanting expansion.
  - However, survey-takers responded "No" to business development of recreation (44% "No" to 36% "Yes").
- Current roads allow people to access where they want to go, but most would not want the Navajo Nation to open roads for recreational activities.
- One-third of the survey takers currently graze cattle in forestlands. Many see the need for increased regulations concerning grazing as well as increased enforcement of the grazing regulations.
- It is extremely important for the Navajo Nation to protect cultural areas within the forestlands as 86% responded Extremely Important or Important.
- Questions concerning whether to allow the development of gravel pits or mining were answered with mostly "No" responses.
- Other issues that respondents would like addressed are:
  - Waste / trash dumping
  - Soil erosion
  - Weeds
  - Active restoration

"I wish all Navajos would learn to plan for our future generations."

-Comment from the Community Survey

## REGIONAL COMMUNITY MEETINGS, CHAPTER MEETINGS & OPEN HOUSE

Community engagement was designed to visit communities at three distinct points for development of the IRMP Document:

1. To identify issues and concerns, and hopes for the future
2. Present a series of potential future management approaches for the forestlands that addressed community issues, concerns and hopes for the future
3. To present a preferred management option for the forestlands based on the feedback received from the community & the Navajo Nation divisions and departments responsible for managing the Nation's natural and cultural resources

### FORMAT FOR COMMUNITY MEETINGS

In order to manage the magnitude of the geographic area, community engagement was organized by grouping individual chapters into regions. Separate special meetings were advertised for regional community meetings that encompassed a series of chapter areas. Meeting locations were selected based on proximity to larger population area, meeting space, size and equipment availability and flexibility to schedule day/evening meetings.

The Navajo Forestry Department also made itself available to visit and present information to individual chapters and farm boards on an "as requested" basis throughout the project development period.

Regional Community Meetings were organized in the following format: A formal PowerPoint presentation was delivered that walked through the project development process including what we had heard from the community to date, and objectives for the present meeting. Community meetings then transitioned into a public hearing format where participants were asked to sign up to speak to share their thoughts, concerns and ideas about the project and the information presented. The project team and ID team members responded to community questions and concerns based on their project understanding and specific resource knowledge.



Community Participation at IRMP Regional Community Meetings

The project web site has copies of the PowerPoint presentations used for community meetings. Meetings also included informational boards and printed materials. Informational boards documented information collected on the project, resource issues, community feedback, and management options, among many other issues. Appendix D includes copies of all the poster boards presented at the Regional Community Meetings.

Lastly, community meetings used electronic voting to provide meeting participants the opportunity to voice their preferences for different management options discussed at the meetings. This interactive tool provided participants the opportunity anonymously weigh in on the development of the project without others being aware of their individual vote.

## SUMMARY OF PUBLIC ANNOUNCEMENTS

Meeting announcements were advertised in the local newspapers, "The Navajo Times" and the "Farmington Daily Times". Local radio stations across the Navajo Nation delivered public service announcements containing information on upcoming meetings, location and timing. Flyers providing meeting details were sent to the Chapter houses and/or local meeting hosts with the request to post in public locations and to make announcements at regular Chapter meetings and Planning meetings. Meeting announcements were both emailed and faxed to each of the 27 Chapters.

Samples of community meeting flyers and press releases are included in Appendix B.



Community Participation at IRMP Regional Community Meetings

Figure 2-5. Sample of Community Meeting Boards



## Resource Assessment



**OBJECTIVE:** To build awareness between the resource departments on key issues, needs and initiatives, and to communicate the related community concerns.

High overview of the Natural and Cultural Resources found within:

- Chuska Mountains
- Defiance Plateau
- Carrizo Mountain
- Navajo Mountain
- Mount Powell



Agriculture

Air Quality

Cultural Resources

Wildlife & Fisheries

Forest Resources

Housing & Land

Recreation

Water Resources

Weeds & Invasive Species

Wetlands & Riparian

Forest Roads

Visual Resources & Viewsheds

Human Resources

Minerals

**COLLECTIVE CONCERNS AND CHALLENGES IDENTIFIED:**

- Livestock Management
- Farming Support & Infrastructure
- Abandoned Mines & Resource Extraction
- Invasive Species
- Dissemination of Information
- Enforcement
- Natural Hazards & Extreme Weather Events
- Habitat Loss & Fragmentation
- Resource Economies
- Recreation
- Roads & Transportation
- Water Rights
- Water Infrastructure
- Water Quality
- Water Use & Conservation
- Climate Change
- Cultural Respect

**Managing Our Land Resources Collectively for the Diné**



## Community Engagement



**Where We've Been**

15 Community & Chapter Meetings

128 Community Surveys Returned

20 Community Land Use Plans Reviewed

Project Website, Social Media Posts & Updates

**What We've Heard** "The mountains are sacred."

**Top Forestlands Goals** (By assessing community responses/interests)

• Increase the amount of water available

**Reasons People Go to the Forestlands** (By assessing community responses/interests)

• Hunt

• Recreation

• Cultural Activities

• Water Use/Quality

• Recreation/Resource Appreciation

• Spending Time in Forestlands

**% Participating in Specific Activity**

• Hunt

• Recreation

• Cultural Activities

• Water Use/Quality

• Recreation/Resource Appreciation

• Spending Time in Forestlands

**Water Security**

60% Have Sufficient Potable Water

45% Have Seen Decreases in the Amount of Water Available

Water Quality is an Issue Due to Various Contaminants

**Increase Regulations & Enforcement**

- Grazing Regulations
- Trash Dumping
- Homesite Expansion
- Firewood Extraction
- Hunting / Fishing

"I wish all Navajos would learn to plan for our future generations."

**Homesite Development**

85% Repair with Restrictions

15% Restrict Expansion to Certain Designated Areas

0% Not Allow any New Development

0% Other

**86%** Feel that it is "Extremely important/Important to Protect Cultural Areas"

**88%** • Extremely Important/Important to Monitor Wildlife Populations and Habitats

**65%** • No/Not Sure for the Navajo Nation to Allow Businesses to Develop Recreational Tourism

**88%** • No to Mines in the Forestlands

**77%** • Yes to Active Restoration in the Forestlands

**83%** • Yes to More Soil Erosion Prevention

**Using the Forestlands as a Source for Food**

37% Fish    48% Hunt

"Navajo Nation and BIA need to work together to accomplish our goal for Mother Nature."

**Who We've Heard From**

**Community Survey**

- All 5 Forestlands Represented in Responses
- 84% Live on Navajo Nation
- Even Split between Males/Females
- 28% Age 44 and Under; 45% Age 45-64; 25% Age 65+
- Community & Chapter Meetings
- Attendance > 300 People
- All 5 Forestlands Visited

**Managing Our Land Resources Collectively for the Diné**

### DATES, LOCATIONS, APPROXIMATE ATTENDANCE

The following is a summary of the meeting locations, dates and approximate attendance for the chapter and regional community meetings conducted throughout the development of the project. ID team and internal planning team members were in attendance to present the project and to discuss various aspects of the IRMP and to solicit community input:

Table 2-8. Meeting Locations, Dates and Approximate Attendance

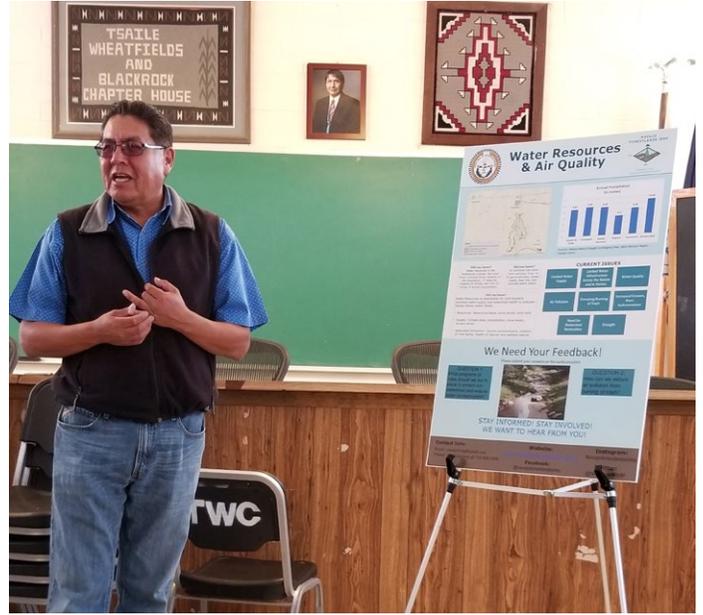
Date	Location	Type of Meeting	Approximate Attendance
August 28, 2017	Naschitti Chapter House	Invitation to Chapter meeting	30 - 40
August 31, 2017	Two Grey Hills Chapter House	Invitation to Chapter meeting	25 - 30
September 14, 2017	Wide Ruins Chapter House	Invitation to Grazing Meeting	10-15
September 18, 2017	Tohatchi Chapter House	Invitation to present	10-15
October 3, 2017	Thoreau Community Center	NN IRMP Regional Meeting	2
October 4, 2017	Fort Defiance Chapter House	NN IRMP Regional Meeting	6 - 8
October 5, 2017	Wheatfields Chapter House	NN IRMP Regional Meeting	15 - 20
October 9, 2017	Shiprock Chapter House	NN IRMP Regional Meeting	8 - 12
October 10, 2017	Tohatchi High School	NN IRMP Regional Meeting	12 - 15
October 11, 2017	Navajo Mountain High School	NN IRMP Regional Meeting	3
November 13, 2017	Cove Chapter House	Invitation to present	10-15
November 15, 2017	Twin Arrows Navajo Casino Resort	DNR Summit presentation	20-25
November 20, 2017	Smith Lake Chapter House	Invitation to present	10-15
February 13, 2018	Navajo Nation Museum, Window Rock	Invitation to present at the Reservation-Wide Elected Officials Meeting sponsored by the NN Dept. of Ag.	20-25
March 16, 2018	Navajoland Inn and Suites (St. Michaels, AZ)	Invitation to present at the CLUP Meeting	4
April 3, 2018	Navajo Nation Museum, Window Rock	NN IRMP Regional Meeting	15 - 20
April 4, 2018	Navajo Technical University, Crownpoint	NN IRMP Regional Meeting	3
April 5, 2018	Diné College, Shiprock	NN IRMP Regional Meeting	20 - 25
April 10, 2018	Tohatchi Chapter House	Invitation to present at the Permittee Meeting	6
April 26, 2018	Sanostee Chapter House	Invitation to present and attend a community forum	12
June 6, 2018	St. Michaels Chapter House	Open House	10 - 12
June 7, 2018	Shiprock Chapter House	Open House	12 - 15

## MEETING RESULTS

Various resource issues and concerns were expressed and discussed at the community meetings.

Some frequently heard issues include:

- Overpopulation and control of feral horses, grazing animals
- Firewood collection for personal and commercial use
- Need for restoration of burned areas
- Protection of cultural sites/traditional practices
- Policies for homesite locations, repairs and access
- Traditional and medicinal plant use threatened
- Misuse of forestlands for trash dumping, illegal activities



Resource Department Staff/ID Team Members Discussing Resource Management Issues

## CHAPTER LAND USE PLAN REVIEW

During the early 2000's, individual Navajo Nation chapters undertook the creation of Community Land Use Plans (CLUPs) to detail future land and economic needs for their residents. The plans included needs for housing, economic activity, community facilities and resources, access, etc., as well as information about the future direction each chapter sought for their residents. The IRMP project team reviewed and incorporated the information contained in the CLUPs to further understand and identify the issues, needs and desires of each chapter into development of the IRMP document.

## TABLE OF CLUPs REVIEWED

Chapter Land Use Plans were reviewed for 20 of the 27 chapters. CLUPs were obtained from the Navajo Nation website, the Land Department or the chapter office. Requests for missing CLUPs were made to the individual chapters via phone and email from the project team. The following plans were reviewed as part of the project:

The following chapters did not have CLUPs available for review:

- Klagetoh
- Naschitti
- Nazlini
- Oak Springs
- Round Rock
- Sweetwater (no CLUP, received land use map)
- TeecNosPos

## SUMMARY OF CLUP REVIEW

The Community Land Use Plans were designed to encompass many topics including residential and commercial development, infrastructure, population growth, education, and the health, public safety and welfare of the residents. Review of the CLUPs included capturing the primary goals, objectives and resource use information. Some of the primary themes captured from the CLUP review included:

- Access to water, sewer and electricity
- Preservation of the natural resources within and adjacent to their chapters
- Preservation of the Navajo language and traditions
- Opportunities and locations for economic development
- Need for housing
- Improve areas for community interaction including schools, parks, community centers
- Enforcement of laws to remediate issues resulting from trash dumping, animal control
- Plan for future growth

Information collected from the CLUP document review was integrated into the development of the IRMP project goals and later into the development of the Management Options for the IRMP.

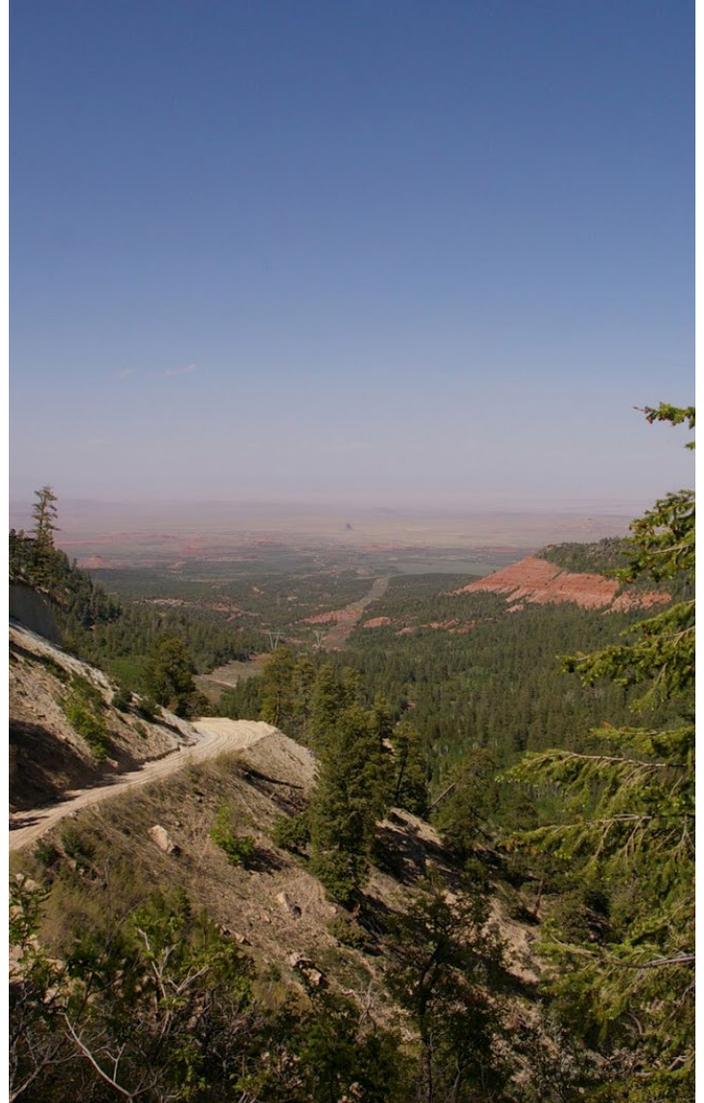


Table 2-9. CLUPs Reviewed

Cove	Lukachukai	Red Lake	Sheep Springs	Tohatchi
Crystal	Mariano Lake	Red Valley	Smith Lake	Tsaile/Wheatfields
Fort Defiance	Mexican Springs	Sanostee	St Michaels	Twin Lakes
Kinlichee	Navajo Mountain	Sawmill	Thoreau	Two Grey Hills

# PRIMARY THEMES

## RESOURCE MANAGEMENT ISSUES IN THE FORESTLANDS

Throughout the IRMP development process, team members engaged NN Resource Department members and community members living in or near the forestlands. From those meetings, discussions and surveys, comments were collected and common themes regarding resource management issues emerged that were used for development of the IRMP. The following is a list of the primary themes related to resource management that emerged as a result. These themes were brought before the IRMP ID Team for validation, refinement and approval. The methodology used to compile and develop themes from the various inputs is described in the following section.

1. Improvement in grazing permit administration, management and enforcement to reduce overgrazing
2. Identification, protection and education about cultural sites, practices and traditions
3. Conservation and protection of wildlife and their habitat
4. Implement forest management and restoration for forest health
5. Increase forest product permitting, management and enforcement to reduce cutting of green trees
6. Balanced recreation development with sound management of areas
7. Identification and maintenance of key access roads
8. Weed and invasive species management needed along with active restoration of native species
9. Water infrastructure improvements and construction needed to support communities, agriculture and farming
10. Watershed protection to support water quality, supply and environment
11. Need more enforcement, stricter penalties for violations associated with trash and illegal dumping



## THEME DEVELOPMENT METHODOLOGY

The following summary describes the methods and analysis undertaken to combine the various community and resource department inputs together to produce a comprehensive and representative picture of the issues, concerns, and hopes for the future to identify specific preferences for management of the forestland areas.

### 1. Community Comments

- Community comments from Chapter and Regional Meetings were collected through meetings minutes and comment cards.
- Additional sources of comments included the project website and social media (Facebook, Twitter and Instagram).
- Individual comments were then entered into an “Issues and Concerns” Excel database organized by resource area and comment source.

### 2. Community Survey

- Individual comments from the IRMP Community Survey were also input into the “Issues and Concerns” database by resource area.
- Survey question results were tabulated using a web based software program called Survey Monkey.

### 3. Combination of Comments

- Combined comments from the community and the survey were reviewed and coded by topic/issue/concern for grouping. Grouping is an iterative process as themes emerged from the analysis of comment content.
- Excel pivot tables were then created on the coded data to calculate frequency.
- Using the issues/concerns with the highest frequencies as the baseline, the comments were reviewed once more for theme development.

### 4. Integration with Community Land Use Plans and DNR Feedback

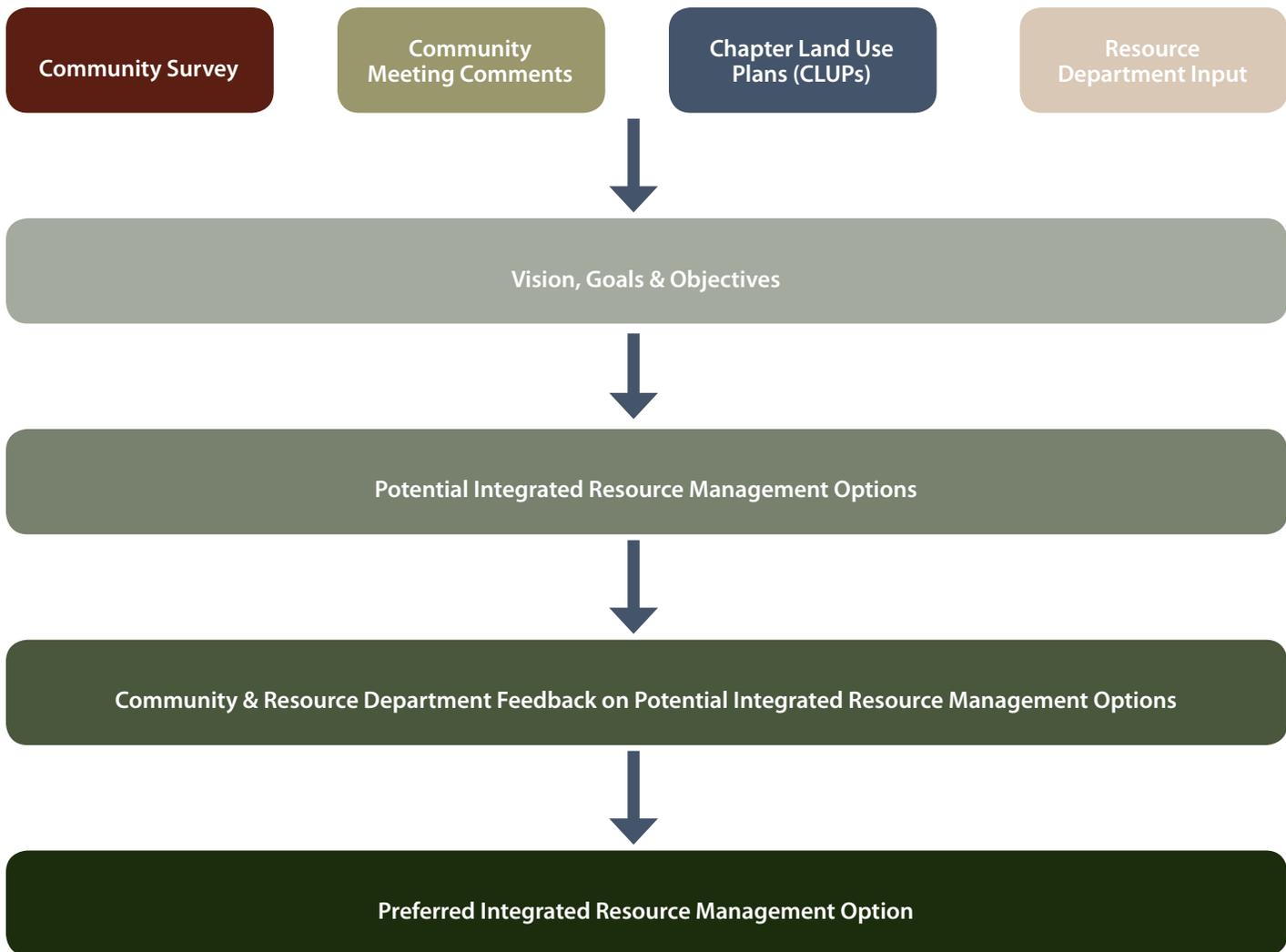
- These themes from the community meetings and survey were integrated with information and feedback from Community Land Use Plans (CLUPs) and the Navajo Nation divisions and departments responsible for managing the Nation’s natural and cultural resources to identify primary themes.
- From the CLUPs, a summarization of the top goals and objectives from each Chapter was extracted as well as pertinent resource management issues and opportunities.
- The question responses from the community survey were analyzed and used to validate comments and themes.
- Secondary themes have also emerged from the analysis and are incorporated into the Draft IRMP.



## COMMUNITY ENGAGEMENT RESULTS

The results of the community engagement for the IRMP combined with inputs from the ID Team and DNR department inputs, produced a set of key themes that guided development of the IRMP. The results associated with listening to the community provides the framework for development of the Vision, Goals and Potential Integrated Management Options.

Figure 2-6. Process Overview for Integration of Community Input into Development of IRMP







# SECTION 3

## INTEGRATED RESOURCES MANAGEMENT PLAN

Project Vision, Goals & Objectives

Development of Integrated Resource Management Options

Preferred Integrated Resource Management Option



# PROJECT VISION, GOALS & OBJECTIVES



A vision is sometimes described as an ideal picture of the future. However, it is much more than this – it is a community’s aspiration, and its inspiration. It is a description of what the Navajo would like to achieve or accomplish, and serves as the framework for detailed goals, objectives and recommendations.

## **The vision answers the question, “Where do we want to go?”**

A vision is not just an answer; it is also a process. In the case of development of the Navajo Forestlands IRMP, it involved an extensive, collaborative process in which community members directly participated and contributed ideas, dreams and hopes for the future, all of which shaped development of Navajo Forestlands IRMP Vision. The Navajo Forestlands IRMP Vision is represented by the thirteen goals expressed by the community. These values represent the qualities and characteristics that Navajo community members aspire to protect, maintain, improve, change, or achieve in the future.

In many respects, the Navajo Forestlands IRMP Vision reflects the values of the community that are under threat—that is, there is some sense that the particular value must be protected or needs to be adjusted to meet the desires of the community. In some instances, the Navajo Forestlands IRMP Vision reconciles competing desires. The Navajo Forestlands IRMP Vision seeks to find the common ground between competing values, which are further articulated with the project goals, and are carried out through the Preferred Integrated Resource Management Option’s recommendations.



## IRMP PROJECT VISION

The Vision for the Navajo Forestlands IRMP represents the primary issues, concerns and hopes for the future identified by community members and resource department staff. The IRMP Project vision is listed below.

## GOALS

There are thirteen goals that identify priorities and focus for future resource management. The goals were developed by compiling the issues, concerns and hopes for the future heard from community members and resource department staff. The IRMP project goals were reviewed and approved by the ID Team.

“The Navajo Nation manages, protects, conserves, and enhances forest lands for the people, using an interdisciplinary and integrated approach for all resources.”

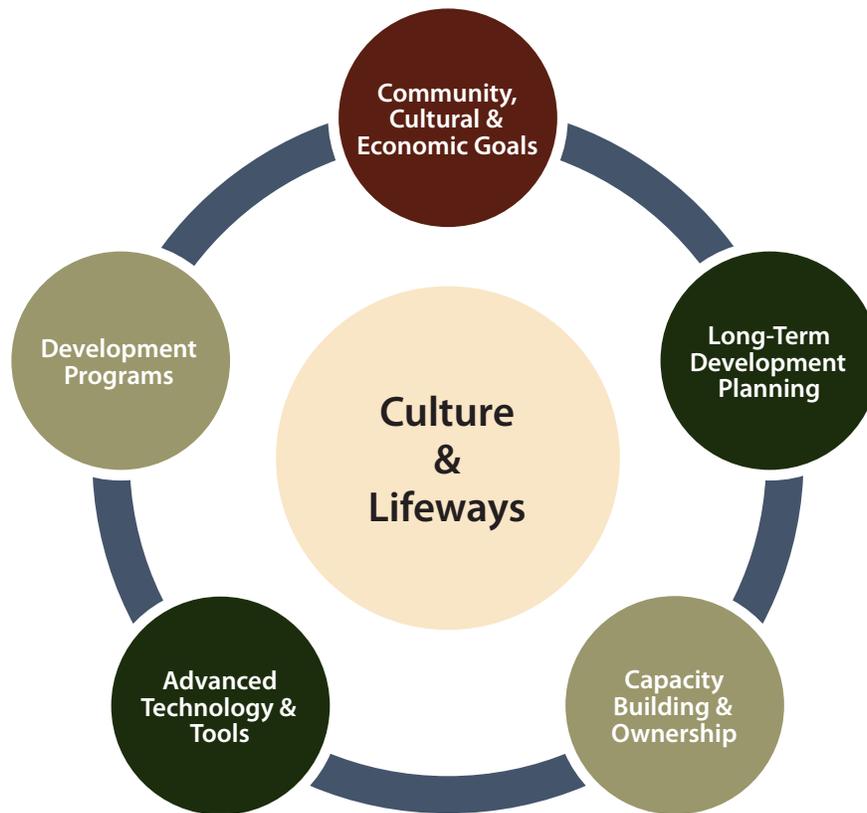
### Navajo Forestlands IRMP Goals

1. Strengthen the preservation and incorporation of Navajo culture, traditional ways and values
2. Increase active forest management for the benefit of multiple natural resources
3. Enhance the resiliency of the forestlands to disturbances, changing environmental conditions and climate change
4. Create economic development opportunities
5. Provide education and outreach to the community
6. Improve compliance with current laws and regulations regarding permits
7. Improve enforcement with current laws and regulations
8. Increase rangeland management to ensure adequate grazing for wildlife and livestock
9. Conservation and protection of wildlife and their habitat
10. Provide an adequate, safe water supply for people, livestock and wildlife to ensure water security for the future
11. Improve communication and coordination between NN Departments and BIA/Federal Government
12. Identification and maintenance of key forestlands access roads
13. Balanced recreation development with sound management of areas

# DEVELOPMENT OF INTEGRATED RESOURCE MANAGEMENT OPTIONS

The management options developed for the IRMP were based on “Community First,” a proprietary, community-centered approach for plan development designed specifically for work with Indian Country. “Community First” enables potential management options to be analyzed against community goals and is grounded in the places, culture, environment, health, spirituality and other community values. This approach helps communities identify potential preferences for moving forward and determines which strategies are appropriate to help achieve project goals and to make wise investments. It is a model that evaluates both the quantitative and qualitative aspects of project/policy options.

Figure 3-1. Community First Planning Approach: Integration of Community Values into Project Development



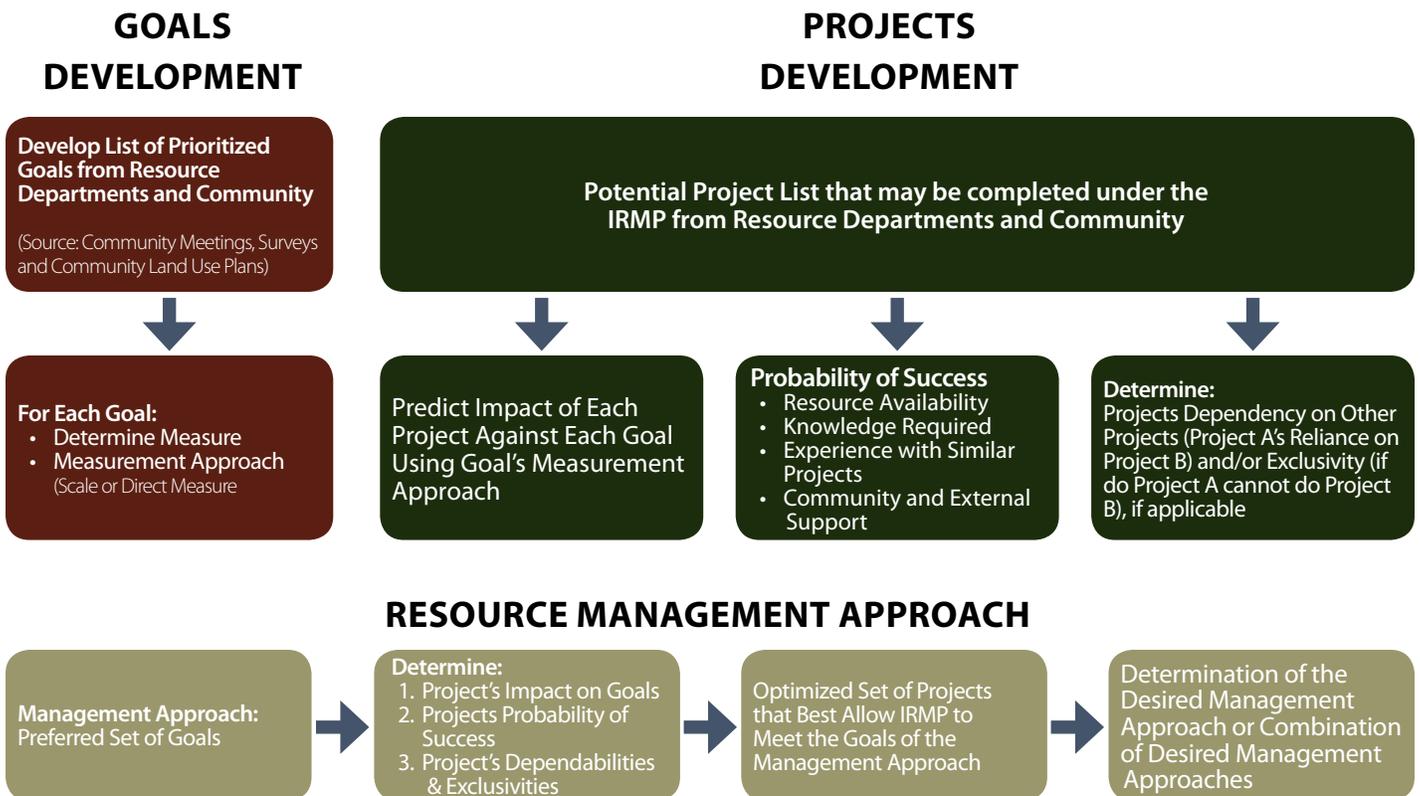
## COMMUNITY FIRST PROCESS METHODOLOGY

The Community First Planning Model uses algorithms to analyze many potential resource management options to determine the right mix of strategies, projects, programs and activities to meet community and management goals. The Forestlands IRMP utilized the Community First approach for development of the potential integrated resource management options and worked with the ID team evaluate community goals against potential options in a series of workshops. Each Navajo Nation Natural Resource Department was tasked with identifying current and potential projects that help address individual and shared resource management issues. Additional chapter level projects were designed to address community concerns and integrated into the analysis. Project information included funding amounts required, the department’s needed capacity, and scored on feasibility to implement.

Each project was scored against each goal to quantify the measure of impact the project would have on the goal. Different options were then created by prioritizing goals. The Community First model analyzed these projects in many different combinations and scored projects on how well they met the goals for the IRMP.

The ID Team worked together to prioritize different project goals and develop different model options for analysis. The model results illustrated different types of programs, policies and projects that would best enable the project to meet its prioritized goals. The resulting outputs produced a series of management approaches that when implemented through additional planning, programs and projects would enable the Navajo Nation divisions and departments responsible for managing the Nation’s natural and cultural resources to best meet the IRMP identified project goals.

Figure 3-2. Methodology for Community First Process & Management Option Development



## POTENTIAL INTEGRATED RESOURCE MANAGEMENT OPTIONS

Using the results of the Community First Model, the project team developed three Potential Integrated Resource Management Options that could be used to guide coordinated management of the forestlands in the future. Each management option represented a distinct management philosophy, prioritized different goals and provided varied recommendations. The management options were presented to the ID team for review and modification before being brought to the community for their review and feedback. Table 1 represents the three different potential management options developed with the ID team and presented to community members.

Table 3-1. Initial Integrated Management Options

<b>Management Option A: Increase Resiliency Through Conservation/Restoration</b>	<b>Management Option B: Active Management &amp; Enforcement</b>	<b>Management Option C: Culture, People &amp; Partnerships</b>
<p><b>Description:</b></p> <p>Management Option A is focused on land stewardship and involves a longer term focus on improving forest health.</p> <p>Mimics nature’s processes to promote long term health of the forestlands and their native ecosystems.</p>	<p><b>Description:</b></p> <p>Management Option B identifies changes to better regulate the use and protection of Navajo Nation Natural Resources.</p> <p>Focuses on implementation of active resource management projects and enforcement of existing regulations to improve the use, conditions and state of Navajo Nation Forestlands.</p>	<p><b>Description:</b></p> <p>Management Option C places the Navajo people’s needs for infrastructure, employment, information and community development as the priority for its management approach.</p> <p>Emphasizes protection of its cultural resources, heritage and history.</p> <p>Emphasizes strategic partnerships and coordination opportunities across government agencies.</p>
<p><b>Goals Supported:</b></p> <ul style="list-style-type: none"> <li>• Provide an adequate, safe water supply for people, livestock and wildlife to ensure water security for the future</li> <li>• Increase rangeland management to ensure adequate grazing for wildlife and livestock</li> <li>• Enhance the resiliency of the forestlands to disturbances, changing environmental conditions and climate change</li> <li>• Conservation and protection of wildlife and their habitat</li> <li>• Increase active forest management for the benefit of multiple natural resources</li> </ul>	<p><b>Goals Supported:</b></p> <ul style="list-style-type: none"> <li>• Provide an adequate, safe water supply for people, livestock and wildlife to ensure water security for the future</li> <li>• Increase rangeland management to ensure adequate grazing for wildlife and livestock</li> <li>• Improve enforcement with current laws and regulations</li> <li>• Improve compliance with current laws and regulations regarding permits</li> <li>• Increase active forest management for the benefit of multiple natural resources</li> <li>• Identification and maintenance of key forestlands access roads</li> </ul>	<p><b>Goals Supported:</b></p> <ul style="list-style-type: none"> <li>• Provide an adequate, safe water supply for people, livestock and wildlife to ensure water security for the future</li> <li>• Increase rangeland management to ensure adequate grazing for wildlife and livestock</li> <li>• Strengthen the preservation and incorporation of Navajo culture, traditional ways and values</li> <li>• Create economic development opportunities</li> <li>• Balanced recreation development with sound management of areas</li> <li>• Improve communication and coordination between NN Departments and BIA/Federal Government</li> <li>• Provide education and outreach to Community</li> </ul>

<b>Management Option A:</b> <b>Increase Resiliency Through Conservation/Restoration</b>	<b>Management Option B:</b> <b>Active Management &amp; Enforcement</b>	<b>Management Option C:</b> <b>Culture, People &amp; Partnerships</b>
<p><b>Recommendations:</b></p> <ul style="list-style-type: none"> <li>• Utilize information from existing conditions reporting and resource assessments to identify opportunities for restoration activities (along streambanks, in burned areas, near roadsides, and in sensitive wildlife and vegetation areas)</li> <li>• Conduct forest thinning activities within the forestlands to provide room for tree growth and to help diversify vegetation base for wildlife species</li> <li>• Conduct controlled burns in areas overtaken by invasive species and pests</li> <li>• Develop a drought management plan</li> <li>• Develop, refine and implement land management designation system for forestland areas</li> <li>• Prohibit or severely restrict grazing within the forestland areas and in wetland areas and riparian corridors</li> <li>• Determine schedules for conducting wildlife population counts</li> <li>• Monitor and manage sensitive wildlife species to improve habitat conservation efforts</li> <li>• Secure funding to conduct resource inventories and close data gaps across different resource areas</li> </ul>	<p><b>Recommendations:</b></p> <ul style="list-style-type: none"> <li>• Improve management of forest product permitting system to ensure that permits cannot be sold or transferred. Increase enforcement of forest product permit violations to prevent re-sell of wood and cutting of green trees</li> <li>• Evaluate enforcement mechanisms for violations against trash dumping, firewood collection, and grazing permit regulations</li> <li>• Re-evaluate grazing management system to streamline regulatory, management and enforcement authority for different levels of government (federal, Nation and local chapters)</li> <li>• Update and adopt the Forest Management Plan</li> <li>• Develop a watershed based management approach to forestland management, supported by a Watershed Management Plan</li> <li>• Conduct timber harvests in select management units to promote forest health and generate resource revenue</li> <li>• Evaluate methods of controlling/relocating the feral horse population including fertility-control methods</li> </ul>	<p><b>Recommendations:</b></p> <ul style="list-style-type: none"> <li>• Improve infrastructure for water storage for use by people, plants and animals</li> <li>• Introduce land use zoning and permitted uses within different zones – apply to all local government chapters</li> <li>• Road maintenance to support infrastructure needs-critical infrastructure projects to support communities – water security, food security, jobs, food desert</li> <li>• Conduct monthly meetings and communication protocols between BIA departments and Navajo DNR departments to coordinate resource planning and project implementation</li> <li>• Create funding opportunities/grants to facilitate development of local infrastructure improvements at the chapter level</li> <li>• Develop educational curriculum to increase understanding of resource use impacts and conservation measures</li> <li>• Create a centralized GIS data sharing system with reporting and open data requirements for DNR and BIA departments. Utilize foundation developed through the Navajo Nation Land Department</li> <li>• Provide ongoing skills and safety training for resource personnel to increase ability to respond to changing conditions, industry trends and to manage extreme events such as natural hazards and climate change</li> <li>• Water infrastructure and water quality improvements to provide stable water supply</li> </ul>

<b>Management Option A: Increase Resiliency Through Conservation/Restoration</b>	<b>Management Option B: Active Management &amp; Enforcement</b>	<b>Management Option C: Culture, People &amp; Partnerships</b>
<p><b>Recommendations</b> <i>(continued)</i>:</p> <ul style="list-style-type: none"> <li>• Develop and Implement an Adaptive Planning Process to increase capability to respond to Climate Change events</li> <li>• Develop a watershed based management approach to forestland management, supported by a Watershed Management Plan</li> </ul>	<p><b>Recommendations</b> <i>(continued)</i>:</p> <ul style="list-style-type: none"> <li>• Re-evaluate grazing management system to establish appropriate counts and variety of stock supported. Establish rotation grazing to allow for the recovery of grazing areas</li> <li>• Identify key forest access and homesite access roads within the forestlands for regular maintenance and repair activities</li> </ul>	<p><b>Recommendations</b> <i>(continued)</i>:</p> <ul style="list-style-type: none"> <li>• Inventory cultural resource sites and medicinal plants. Develop method for sharing and educating communities about protection of places, traditions and sensitive areas</li> <li>• Improve lake conditions to reintroduce trout populations for fishing opportunities</li> <li>• Conduct dry farming education classes in communities to encourage personal and local food production. Revise farm permit system to accommodate new farmers</li> <li>• Establish localized hunting permit quotas to allow for variations in wildlife populations</li> <li>• Provide communities with contact information of authorities to improve communication between chapters/local officials and NN Departments. Improve relationships with local chapters through ongoing communication of policies and upcoming activities</li> <li>• Establish educational programs for the teaching of cultural/traditional ways to younger generations for the protection of cultural and natural resources</li> <li>• Establish and maintain areas for recreation opportunities including picnicking, hiking and camping</li> <li>• Understand local chapter desires for future community and economic development for possible mutual benefits</li> </ul>

## COMMUNITY FEEDBACK AND POTENTIAL INTEGRATED RESOURCE MANAGEMENT OPTIONS

The IRMP Project Team engaged community members during the Phase 2 Community Regional Meetings in April, 2018 to provide the opportunity for the community to identify their preferences for different Potential Integrated Resource Management Options.

In order to collect specific feedback and comments on each management option, the project team provided a detailed presentation on each management option and used anonymous electronic voting to identify preferences related to the management philosophy, the goals and recommendations and any other detailed comments community members wanted to share. Detailed results of the community voting for the management options is included as part of Appendix E. The feedback we received from both the ID Team and the Phase 2 community meetings was integrated into development of a Preferred Integrated Resource Management Option. The Preferred Integrated Resource Management Option represents a blend of all three management options, with a large acknowledgment of the need for conservation, restoration and active management and enforcement to ensure that the Navajo forestland resources are available for all Navajo in the future.



Figure 3-3: i-Clicker Voting was used at Community Meetings to Identify Preferences for Management Options

Indicate Support for Management Option A  
Recommendations: Pathway to Goal Achievement

What do you like about the **recommendations** for Option A?

- A. Focus on conserving resources for the future: do not use resources
- B. Emphasis on Land Stewardship: use resources with future in mind
- C. Restoring our natural landscapes: restore resources to past conditions
- D. All the above
- E. None of these recommendations are good to me



## PREFERRED INTEGRATED RESOURCE MANAGEMENT OPTION

The Preferred Integrated Resource Management Option provides the overarching strategic guidance for future management of the five forestland Areas (Chuska Mountains, Mount Powell, Carrizo Mountain, the Defiance Plateau and Navajo Mountain). This option is the culmination of the diligent work by the project team, the ID team, resource managers and commitment from the community to share their issues and concerns and voice their preferences for how they want to see the Navajo forestland areas managed in the future.

The Preferred Integrated Resource Management Option was developed with recognition that each resource department operates under its own specific work program and budget, but emphasizes that by utilizing the Preferred Integrated Resource Management option to guide their planning and project efforts they each increase their impact and achieve multi-resource benefits.

The Preferred Integrated Resource Management Option is organized by discussing the management approach, identifying the supporting goals and listing the accompanying recommendations that provide the charge to plan for future resource management.



### FUTURE IRMP MANAGEMENT APPROACH: ACTIVE LAND STEWARDSHIP BY AND FOR THE DINÉ

The IRMP Management Option Approach communicates the philosophical management approach to be taken when planning and implementing work within the Navajo Nation forestlands. It represents the community and management values identified through this IRMP process, and the values that should drive all management activities for the future. It recognizes and acknowledges the interrelationship between forestland resources and the Navajo culture.

The Preferred Integrated Resource Management Option reflects the deep cultural relationship of the Navajo people with the forestlands and the resources within them. It recognizes the role the forestlands play in the Navajo Peoples' economic livelihood, their traditions and in helping to meet local community needs. The Preferred Integrated Resource Management Option emphasizes an ethic of land stewardship and wise use of resources to ensure they can remain resilient

to changing conditions and to be available for families and future generations. It provides guidance to the Navajo Nation departments and divisions responsible for managing the Nation's natural and cultural resources to address active management needs of natural resources and increased enforcement of existing regulations to restore and rehabilitate degraded forestland areas; and to maintain future revenue generation potential of key resources.



## GOALS & RECOMMENDATIONS

The Preferred Integrated Resource Management Option focuses the work of the Navajo Forestlands IRMP on nine primary goals. While the Preferred Integrated Resource Management Option lists these nine goals and a series of supporting recommendations, it does not mean to infer that other management goals cannot also be advanced simultaneously, or that other best practices recommendations should not also be implemented. The Preferred Integrated Resource Management Option is focused on providing strategic guidance to set the Navajo Nation departments and divisions responsible for managing the Nation's natural and cultural resources on a prioritized path towards achieving the community vision for future management of the forestlands.

The goals associated with the Preferred Integrated Resource Management Option will be advanced utilizing the management philosophy described above. Each goal is supported by a series of recommendations that describe overall activities each resource management department should address and integrate into the development of future management plans, projects and actions. The recommendations include short and longer-term changes that are needed across the Navajo Nation, within the Division of Natural Resources, as well as, within a particular resource department. Recommendations reflect changes that may be needed to modernize methods, practices and protocols for collecting and sharing information, for communication and for integrating best practice resource management techniques. Finally, recommendations reflect opportunities to build linkages between resource management professionals and community resource users through education, outreach and demonstration projects.

## GOALS

1. Strengthen the preservation and incorporation of Navajo culture, traditional ways and values
2. Increase active forest management for the benefit of multiple natural resources
3. Conservation and protection of wildlife and their habitat
4. Create economic development opportunities
5. Strengthen the ability of the forestlands to recover from disturbances, changing environmental conditions and climate changes
6. Improve rangeland management to ensure adequate grazing for wildlife and livestock
7. Provide an adequate, safe water supply for people, livestock and wildlife to ensure water security for the future
8. Provide education and outreach to Navajo Communities
9. Improve enforcement of current laws and regulation

## RECOMMENDATIONS (ORGANIZED BY GOAL)

### (1) **GOAL: STRENGTHEN THE PRESERVATION AND INCORPORATION OF NAVAJO CULTURE, TRADITIONAL WAYS AND VALUES**

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#### **Recommendations:**

- Update the Division of Natural Resources on current legislation pertaining to NEPA & ensure compliance
  - Conduct Heritage & Historic Preservation Outreach
  - NEPA protocol/manual for DNR departments including videos, DVDs
- Understand AARPA Bulletin 38, for evaluating and documenting Traditional Cultural Properties and Cultural Landscapes and provide information and education to the public
  - Encourage ethnographic surveys before and after projects
  - Apply guidance to mountains, high places, and elevated places
- Conduct an inventory of cultural resource sites & medicinal plants. Develop methods for sharing and educating local communities about protection of places, traditions and sensitive areas
- Track and monitor burial sites to determine the extent of the problem with burials in unauthorized places
  - Ensure compliance with land office regulations regarding burial sites: acknowledge, educate and apply regulations
- Ensure better access to cultural resources spatial (GIS) information between DNR departments
- Identify and protect traditional plants used in ceremonies and gathering thereof; harvest seeds, replant, and establish native seed banks for restoration. Note: Fish & Wildlife has started a seed bank that could be replicated
- Undertake recruitment & training of Navajo speakers who can interpret the “technical” aspects of natural resource management and communicate with the public
- Establish educational programs to teach cultural/traditional ways to younger generations for the protection of cultural and natural resources
- Demonstrate and deliver messages to the Navajo People that traditionally it is not good to overgraze forestlands or any other lands

## **(2) GOAL: INCREASE ACTIVE FOREST MANAGEMENT FOR THE BENEFIT OF MULTIPLE NATURAL RESOURCES**

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### **Recommendations:**

- Update and adopt the Forest Management Plan
- Identify future commercial harvests based on demand and forest health
  - Determine forest needs to ensure sustainability for wood collection, watershed protection, range management needs, wildlife and recreation
  - Assess markets and identify and recruit buyers for 1.) wood waste product and 2). Timber products
  - Investigate niche, international markets; Markets open to Native producers
- Implement select forest treatments to maintain forest health
- Conduct timber harvests in select management units to promote forest health and generate resource revenue
- Conduct forest thinning activities within the forestlands to provide room for tree growth, to help diversify vegetation base for wildlife species and reduce risk of catastrophic wildland fire
- Improve management of forest product permitting system to ensure that permits cannot be sold or transferred. Increase enforcement of forest product permit violations to prevent resale of wood and cutting of green trees
- Stay abreast of Best Management Practices and training and apply to forest management activities
- Conduct before/after studies of forest road access impacts, maintenance requirements and methods to implement forest restoration projects on unnecessary roads
- Reach out to EPA Region 9 to ensure forest impacts from mining remediation work is considered

## **(3) GOAL: CONSERVATION AND PROTECTION OF WILDLIFE AND THEIR HABITAT**

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### **Recommendations:**

- Maintain inventories of Threatened and Endangered species, big game and fisheries
  - Distributions, habitat needs, and major threats
- Broadly: maintain diversity and heterogeneity of wildlife habitat
  - Horizontal diversity of landscape
  - Vertical diversity of individual forest stands
- Maintain inventories of Threatened and Endangered species, big game and fisheries
  - Distributions, habitat needs, and major threats
- Establish collaborative relationships with wildlife agencies and universities to acquire funding for Master and PhD students to conduct field-based, scientific studies on Threatened and Endangered species and big game species, and to share findings, reports and publications with the Fish & Wildlife Department for future use in forest and wildlife management plans
- Create Big Game Management Plans for the following species with distributions that overlap Navajo Forestland areas: Mule deer, Rocky Mountain elk, pronghorn antelope, Desert bighorn sheep, black bear and mountain lion
- Continue current monitoring efforts for sensitive wildlife and big game species, and conduct habitat improvement projects to provide quality habitat where it has deteriorated
- Improve lake conditions to reintroduce trout populations for fishing opportunities
- Reduce feral horse population to protect wildlife and habitat
- Reduce feral cows in forestlands

#### **(4) GOAL: CREATE ECONOMIC DEVELOPMENT OPPORTUNITIES**

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##### **Recommendations:**

- Explore an interdepartmental forestry entrepreneurial program to help Navajo business to harvest wood
  - Investigate opportunities for public/private partnership
- Explore how to diversify funding/dedicated funding with Navajo Nation entrepreneurs
- Evaluate firewood and timber markets and operations to identify future use of wood products
- Partner with the chapters to designate specific areas to harvest wood

#### **(5) GOAL: STRENGTHEN THE ABILITY OF THE FORESTLANDS TO RECOVER FROM DISTURBANCES, CHANGING ENVIRONMENTAL CONDITIONS AND CLIMATE CHANGES**

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##### **Recommendations:**

- Provide ongoing skills & safety training to resource department personnel to increase ability to respond to changing conditions, industry trends and management of extreme events associated with natural hazards and climate change
- Inventory land to target priority areas that have denuded vegetation and loss and need restoration
- Protect and manage watersheds and streams; watershed restoration
- Partner with chapters to create conservation projects
  - Build awareness and education
  - Pilot demonstrations; expand successful pilots to other areas
- Employ targeted, temporary fencing of conservation/restoration areas to allow areas to regenerate. Support efforts through education and outreach to communities
- Create reseeding projects where needed
- Partner with schools to develop a conservation project
- Partner with area university to study the forest and create high school/university internships
- Avoid fragmentation and maintain forest connectivity
- Maintain stand densities (appropriate for area) that optimizes and promotes tree growth, forage and forest production
- Use public service announcements on water conservation, wildlife protection, livestock, etc.; to share information on how to maintain healthy forestlands
  - Talk about the benefit of thinning, prove it through thinning

**(6) GOAL: IMPROVE RANGELAND MANAGEMENT TO ENSURE ADEQUATE GRAZING FOR WILDLIFE AND LIVESTOCK**

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**Recommendations:**

- Educate the Navajo Nation that living within permit conditions is necessary & beneficial (more sustainable)
  - Communicate the urgent need to change the grazing management mindset
- Adjust grazing permits to support current range conditions and carrying capacity
  - Incorporate wildlife support conditions (20% utilization) into grazing carrying capacity
  - Include wildlife in grazing management policies
- Inventory all grazing permits then manage for the health of the land, including enforcement
- Enforce animals in trespass through animal removal
  - Clarify the roles and responsibilities of enforcement
- Develop education/training plan to help people manage livestock and land
- Recruit and train Navajo speakers for education, training, conveying technical information
- Remove feral horses and reduce overpopulation
- Use of pilot/demonstration Holistic Resource Management projects as a BMP, tool, model to help advance responsible resource management
- Enforce compliance with use of land with Land Department
  - Include overall land management: homesites, burials etc.
- Explore policy options to grandfather or develop a permit issuance process for people with animals and no permit / out of compliance
- Out of respect for land, need to let land rest

**(7) GOAL: PROVIDE AN ADEQUATE, SAFE WATER SUPPLY FOR PEOPLE, LIVESTOCK AND WILDLIFE TO ENSURE WATER SECURITY FOR THE FUTURE**

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**Recommendations:**

- Inventory, conserve, restore and protect wetlands and natural springs
- Require each DNR department project include surface water management as part of the project planning and implementation to slow and impede the flow of surface water runoff
- Provide public outreach and education on surface water management
- Provide adequate buffers along all Navajo Nation bodies of water (consult with Forest Management Plan) and maintain the buffer zone to enhance and preserve water quality
- Watershed restoration to keep water on the land and prevent erosion
- Repair, maintain and develop earthen dams and water catchment systems for livestock, wildlife and agriculture
- Inventory, repair and maintain windmills
- Provide public outreach and education on water harvesting
- Work with NNEPA, USEPA-Region 6 and/or 9 to provide training to identify wetland delineation procedures
- Research and describe the surface and groundwater resources to identify potential water sources and use potential
  - Conduct hydrologic study
  - Ensure meets NNEPA/USEPA standards for quality and contaminants
- Develop criteria to utilize lakes and reservoirs to supply water for domestic and municipal water systems
- Develop a Recreation Management Plan for selected lakes

**(8) GOAL: PROVIDE EDUCATION AND OUTREACH TO NAVAJO COMMUNITIES**

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**Recommendations:**

- Conduct an annual area youth conference on natural resource protection/enhancement
- Conduct public targeted education/training on natural resource protection/enhancement
- Establish Earth Day activities at area schools
- Educate/train the public on existing Navajo Nation laws & regulations for Natural Resources
- Create and fund a DNR team to do continuous training
- Create an education program and provide resources to incorporate rain water harvesting at community level
- Conduct public presentations summarizing current research and monitoring efforts for wildlife, specifically for communities within wildlife study areas and communities that may be affected by wildlife-conflict

**(9) GOAL: IMPROVE ENFORCEMENT OF CURRENT LAWS AND REGULATIONS**

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**Recommendations:**

- Make the Navajo Nation law stronger to allow enforcement officers to remove livestock in trespass
  - Fish & Wildlife: use of federal law to prosecute in federal court
- Hire more enforcement officers; establish funding and set aside for more officers Example: tax or grazing fee
- Explore areas for consolidation of enforcement agencies so individuals aren't spread so thin
- Establish grace period to come into compliance before enforcement
- Improve enforcement to control illegal trash dumping and punishment for violations
- Develop a policy for the capture and removal of feral horse. Communicate to all Navajo the schedule for removal by region
  - Example: program at Navajo Mountain
- Provide education/training on Navajo Nation laws, rules, regulations, policies, etc. for hunting, fishing, trash, grazing, burials, poaching, wood cutting, etc. for enforcement officers, Navajo Nation staff, public, prosecutors

## OVERARCHING RECOMMENDATIONS

Overarching recommendations provide guidance to more complex, systemic issues that need to be addressed across the Navajo Nation Government, across the Navajo Nation divisions and departments responsible for managing natural and cultural resources and within local communities

- Foster and promote the traditional Navajo land stewardship ethic across all generations in our communities with a focus on building resilience and restoring the land
- Create a centralized GIS data sharing system with reporting and open data requirements for DNR & BIA departments. Utilize foundation developed through the Navajo Nation Land Department
- Develop & implement an Adaptive Planning Process to increase capability to respond to climate change, extreme weather events and natural hazards
  - Wildfire management
  - Invasive Species
  - Water security/Drought management
- Secure funding to conduct resource inventories and close data gaps across different resource areas
- Provide ongoing skills & safety training to resource department personnel to increase ability to respond to changing conditions, industry trends and management of extreme events associated with natural hazards and climate change
- Schedule and maintain regular monthly meetings between BIA departments & Navajo DNR departments to coordinate resource management planning and project implementation
- Develop and agree upon communication protocols across DNR & BIA and other relevant agencies for project coordination and to meet multiple resource management objectives
- Develop, refine and implement a land management designation system for forestland areas to delineate areas for harvest, restoration, wildlife conservation, etc. and to support other management objectives
- Support and enforce limitations on homesite development within the forestlands, consistent with adopted Navajo Nation regulations
- Review & modify as needed, local chapter land use zoning regulations and permitted uses adjacent to forestland areas to ensure compliance with Integrated Resource Management Plan goals
- Undertake recruitment and training of Navajo speakers to interpret “technical management language” into easy, understandable language for the Navajo speaking public





# SECTION 4

## **INTEGRATED RESOURCES MANAGEMENT PLAN**

Implementation - Moving Forward

Conclusion





## IMPLEMENTATION – MOVING FORWARD



The Navajo Forestlands IRMP reflects the knowledge, experience and desire of the Dine’ people for how they believe these collective resources should be managed for the benefit of all—to provide for the sustainability and resiliency of its Nation’s resources. The IRMP provides a template for comprehensive management planning that can be applied to future efforts, one that is integrative of multiple resources, social and economic conditions, cultural traditions and community and nationwide development needs.

A critical outcome of this Navajo Forestlands IRMP Planning effort is that it provides a framework for managing the five Navajo Forestland Areas. The framework developed through this process should be seen as something that resource managers and the Navajo Nation use to develop a long-term work program. Implementation of this document and the Preferred Integrated Resource Management Option should occur on a variety of levels:

- By working with the Resources Development Committee to present the process for development of the Forestlands IRMP and the Vision, Goals & Preferred Integrated Resource Management Option; and to present the Draft IRMP document for their consideration and approval
- At the Nationwide level to address fundamental legal, financial, organizational, institutional and process improvement needs identified through this process
- Across government entities and jurisdictions to improve education, communication and information flow

- To assess the appropriate balance in how the natural, cultural, economic and community resource decisions are made based on traditional Navajo lifeways and in areas where more structured, best practice management techniques may have utility and produce better collective outcomes
- To utilize the Preferred Integrated Resource Management Option as the blueprint for next step activities for the Division of Natural Resources, supporting NN Departments, local chapters, the BIA and other coordinating agencies

The following paragraphs provide a series of high-level actions that will help to set the IRMP into motion:

- **Utilize the ID Team Planning Model for future coordination on resource management projects**
  - Conduct a visioning / team building and training program on interdepartmental coordination
  - Through the visioning / team building session, identify specific strategies for ongoing interdepartmental communication and project coordination

- **Develop a cross-discipline (interdepartmental) project & plan development process**

- Identify interdepartmental planning teams for overarching resource management issues and/or specific planning efforts
- Create a process chart to illustrate work flow, coordination points throughout the process, decision makers and development milestones

- **Continue enhancement of centralized information collection, storage and sharing to advance more holistic management approaches**

- Prioritize completion of key resource inventories
- Develop information and data sharing protocols to enhance capability of Lands Department to provide current, comprehensive and integrated data and GIS mapping

- **Promote integrated land management planning models**

- Base resource decision-making on the appropriate spatial scale, such as watersheds and ecosystems

- **Develop comprehensive land use zoning.**

- Utilize GIS mapping to document and monitor land uses, aid decision making, and as a communication tool among departments, stakeholders and public
- Promote a cross-discipline land use decision making process. Encourage all departments to geographically locate areas of opportunity and concern, to drive awareness across staff and stakeholders

- **Integrate Resource Management Opportunities**

- Use collected information to develop management plans that integrate multiple resources

- Apply Best Management Practices & Opportunities identified for specific resources from the Resource Assessment document

At the heart of these integrated resource management approach components is improved communication. Therefore, a first step should be to identify an IRMP action committee, comprised of representatives from each resource management department (or an extension of the existing ID Team). This committee will advance the IRMP actions by first organizing a team-building IRMP workshop among all the divisions and departments responsible for managing the natural and cultural resources. Workshop deliverables will include the following:

1. A 'social contract' that formally states the intent to incorporate the IRMP and the Preferred Integrated Resource Management Option, and pursue a shared approach and improvements to interdepartmental communication
2. Action plan for developing improvements to information storage and sharing (GIS capabilities, for instance)
3. A proposed agenda and date for a separate session to develop a cross-departmental planning methodology and work flow

Initiation of these next steps requires a commitment among all DNR departments to share information, participate in workshops, and generally work cooperatively to advance the shared vision. The IRMP action committee will need to ensure ongoing coordination and project evaluation between resource managers and departments. A project evaluation protocol can be developed that would log and document interdepartmental review and include recommendations to the primary resource manager. As discussed previously, monitoring and evaluation of results is the key to long-term success and collective learning.

Successful implementation of the IRMP will involve a cultural shift within the organization that starts with buy-in to this IRMP and a commitment to shared information and routine communication and collaboration between departments.

# CONCLUSION

The implementation of the IRMP for the Navajo Forestlands supports the cultural identity and promotes the sustainable development of the Navajo Nation by encouraging sound integrated resource management decision making that looks generations ahead. A new, collaborative approach and planning methodology among resource managers, coordinating agencies and local chapters will drive awareness of cross-discipline opportunities and issues. While there are many examples of successful cooperation between resource managers, departments and the public, there are still many cases of resources being managed in a fairly reactionary way to ongoing pressures and demands from various constituents. The incorporation of holistic, integrated resource management will allow for a more proactive approach that considers long-term resource needs from a more integrated perspective.

