

LEGISLATIVE SUMMARY SHEET

Tracking No. 0314-18

DATE: September 27, 2018

TITLE OF RESOLUTION: PROPOSED STANDING COMMITTEE RESOLUTION; AN ACTION RELATING TO RESOURCES AND DEVELOPMENT COMMITTEE, CERTIFYING PINEDALE CHAPTER'S COMMUNITY-BASED LAND USE PLAN WHICH HAS REEVALUATED AND READJUSTED PINEDALE CHAPTER'S FIRST COMMUNITY-BASED LAND USE PLAN

PURPOSE: The Chapters are required to reevaluate and readjust their initial Community-Based Land Use Plan every five years. The purpose of this legislation is for the Resources and Development Committee to certify Pinedale Chapter's new Community-Based Land Use Plan which has been reevaluated and readjusted since the Chapter's first Community-Based Land Use Plan was approved.

This written summary does not address recommended amendments as may be provided by the standing committees. The Office of Legislative Counsel requests each Council Delegate to review each proposed resolution in detail.

3-DAY BILL HOLD PERIOD: 11/15/18
Website Posting Time/Date: 5:12 PM 9/27/18
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Eligible for Action: 10/3/2018

PROPOSED STANDING COMMITTEE RESOLUTION
23rd NAVAJO NATION COUNCIL—Fourth Year, 2018

INTRODUCED BY



Primary Sponsor

TRACKING NO. 0314-18

AN ACTION
RELATING TO RESOURCES AND DEVELOPMENT COMMITTEE, CERTIFYING
PINEDALE CHAPTER'S COMMUNITY-BASED LAND USE PLAN WHICH HAS
REEVALUATED AND READJUSTED PINEDALE CHAPTER'S FIRST
COMMUNITY-BASED LAND USE PLAN

BE IT ENACTED:

SECTION 1. AUTHORITY

- A. The Resources and Development Committee, pursuant to 26 N.N.C. §2004(D)(2) shall certify community-based land use plans.
- B. Pursuant to 26 N.N.C. §2004(D)(2), "Every five years the plan shall be reevaluated and readjusted to meet the needs of the changing community" and such readjustment is subject to the certification of the Resources and Development Committee of the Navajo Nation Council.
- C. Pursuant to 26 N.N.C. § 2004 (B), "Community Based Land Use Plan. The chapter, at a duly-called chapter meeting shall by resolution, vote to implement a community based land use plan, after the CLUPC has educated the community on the concepts, needs, and process for planning and implementing a community based land use plan. The community based land use plan shall project future community land needs, shown by location and extent, of areas identified for

1 residential, commercial, industrial, and public purposes. The land use plan shall
2 be based upon the guiding principles and vision as articulated by the community;
3 along with information revealed in inventories and assessments of the natural,
4 cultural, human resources, and community infrastructure; and, finally with
5 consideration for the land-carrying capacity. Such a plan may also include the
6 following: 1. An open space plan which preserves for the people certain areas to
7 be retained in their natural state or developed for recreational purposes. 2. A
8 thoroughfare plan which provides information about the existing and proposed
9 road network in relation to the land use of the surrounding area. 3. A community
10 facilities plan which shows the location, type, capacity, and area served, of
11 present and projected or required community facilities including, but not limited
12 to, recreation areas, schools, libraries, and other public buildings. It will also
13 show related public utilities and services and indicate how these services are
14 associated with future land use.”

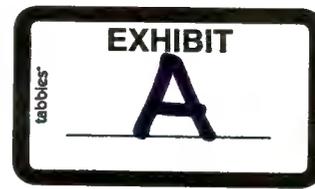
15
16 **SECTION 2. FINDINGS**

- 17 A. Pursuant to Committee Resolution TCDCJY-22-05, the Transportation and Community
18 Development Committee (predecessor to the Resources and Development Committee;
19 CO-45-12) approved the Pinedale Chapter’s Community-Based Land Use Plan in 2005.
20 B. Pursuant to Pinedale Chapter Resolution PDC-09-18-203, attached as **Exhibit B**,
21 the Pinedale Chapter approved the Community-Based Land Use Plan which is
22 attached as **Exhibit A**.
23 C. The Resources and Development Committee of the Navajo Nation Council finds
24 it in the best interest of the Navajo Nation to certify the Pinedale Chapter’s
25 Community-Based Land Use Plan which has been reevaluated and readjusted to
26 meet the needs of the changing community.

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28 **SECTION 3. Certification of Pinedale Chapter’s Reevaluated and Readjusted**
29 **Community-Based Land Use Plan**
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- A. The Resources and Development Committee of the Navajo Nation Council hereby certifies the reevaluated and readjusted Pinedale Chapter's Community-Based Land Use Plan, attached hereto as **Exhibit A**.
- B. Certification of this Community-Based Land Use Plan shall not delineate adjacent chapter boundaries. Any chapter disputes rest solely with the Courts of the Navajo Nation.



PINEDALE CHAPTER COMMUNITY LAND USE PLAN

Titus Nez, Community Services Coordinator



Tó Béeéhwiiisgání

Acknowledgements

Pinedale Chapter Officials

Raphael Martin, President

Clara J. Daye, Vice-President

Dorothy Harjo, Secretary/Treasurer

Loren Cooke, Land Board Member

Community Land Use Planning Committee

Willie Norton, President

Joan Miller, Vice-President

Louise Mariano, Secretary

Lawrence T. Morgan, Member

Clara Harry, Member

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In a collaborative effort with the Pinedale Chapter Officials, Administration and Community Land Use Planning Committee. We are one community, one voice and one direction.



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**RESOLUTION OF THE PINEDALE
COMMUNITY BASED LAND USE PLANNING COMMITTEE**

**ACCEPTING AND APPROVING THE CBLUPC 2018 MANUAL FOR RECERTIFICATION FOR USE OF
DEVELOPMENT OF PINEDALE CHAPTER COMMUNITY**

WHEREAS:

1. The Community Based Land Use Committee have been established by Pinedale Chapter in accordance to Navajo Nation Title 26, section 2004 (B), (C), (D), and (E); and
2. The Pinedale Chapter have appointed and authorized the CBLUPC to immediately began process for re-certification of the Land Use Manual of 2018; and
3. The Navajo Nation Council Resource and Development Committee have reviewed and approved the initial land use plan from July 07, 2005; and
4. The Pinedale CBLUPC and the Administration Staff to take the lead and begun working on the re certification of the manual; and
5. The Pinedale CBLUC have conducted work session, and public hearing (2), and performed surveys with the community residents to serve as "census" for developing sustainable plans; and
6. The Pinedale CBLUPC have to present the 2018 manual to the current Resource and Development Committee for recertification and re-authorization for the next five (5) years; and
7. The Pinedale CBLUPC have reviewed, amended and recommends to the Pinedale Chapter for approval of this foregoing 2018 manual.

NOW THEREFORE IT BE RESOLVED THAT:

1. The Pinedale Chapter to review and approve the 2018 Community Based Land Use Planning Committee working manual for next 5 years.
2. The Pinedale Chapter recommends to approve the plan to the Pinedale Chapter and the Navajo Nation Resource and Development Committee.

CERTIFICATION

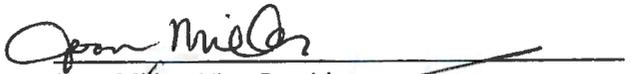
We, the duly undersigned have discussed the forgoing matter at a duly called meeting with a said quorum on this 5th day of September, 2018 at the Pinedale Chapter in Pinedale, (Navajo Nation) New Mexico with 04 in favor, 00 opposed and 01 abstaining.

Motion by: Lawrence T. Morgan

Seconded by: Joan Miller



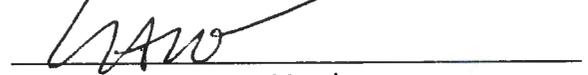
Willie Norton, President



Joan Miller, Vice-President



Louise Mariano, Secretary



Lawrence T. Morgan, Member



Clara Harry, Member

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2 INTRODUCTION

This plan is known as “Pinedale Chapter Community-based Land Use plan”, as adopted by the Pinedale Chapter through resolution no. _____ and certified by the Resource and Development Committee of the Navajo Nation Council. This plan is a full revision of the Final Report plan created in 2005.

The purpose of this plan is required under Navajo Nation Tribal Code 26, Section 2004. This plan will emphasize the past, present and future of Pinedale Chapter and its surrounding communities with authority vested within this act.

This Community-based Land Use Plan is an official document approved by the Pinedale Chapter community members through resolution. It will serve as a policy guide for all land use development and assist in future growth for the community. This document is a working document and will continue to change constantly.

2.1 MISSION STATEMENT

To develop and formulate infrastructure (i.e. agricultural, economic, industrial, and social development) and provide opportunities for the younger generation to carry on public and private land use, resources management, and future preservation of the environment and cultural assets

2.2 OUR VISION

We envision a detailed land use planning organization with an effective leadership within the next five years by:

1. Re-naming the Pinedale Community-Based Land Use Planning Committee and establishing the Pinedale Community Development Committee
2. Establish, plan, and construct Rainbow Falls Cemetery, Sounding Wells Park and To Beehwiisgani historical marker
3. Withdrawing land in accordance to our approved land use plan
4. Continue to increase land base for the community (State, Fee, BLM, Executive-order, Private and Land-buy back areas)
5. Continue to work closely with the chapter and when it becomes local governance certified under Navajo Nation Code (NNC) 26 to ensure both documents are compatible
6. Creating a framework for a Zoning ordinance and other ordinances
7. Partnering with the Navajo Nation Division of Transportation to implement the approved Community Thoroughfare Plan
8. Approving and issuing land for housing, economic, industrial and public/infrastructure development (communication tower, solar/wind turbine farm, farming, electric/water easement, mobile home park, waste disposal, water tank, cemeteries and additional development)



2.3 GOALS AND OBJECTIVES

According to our approved Strategic plan, our goals and objectives are listed as follows:

2.3.1 Land Use Planning

2.3.1.1 Goal #1 – Re-develop our Plan of Operation & name

Objective:	Assignment	Begin Date	Deadline
Conduct a worksession to review Plan of operation and make amend changes	CLUPC President & members	FY 2019 – Qtr. 1 October	FY 2019 – Qtr. 1 November
Present Plan of Operation to CLUPC for favorable consideration	CLUPC members, Chapter Officials, PDC Community members	FY 2019 – Qtr. 1 November	
Introduce supporting/adopting resolution for consideration of POO revisions by Pinedale Chapter membership			

2.3.1.2 Goal# 2 – Withdraw lands according to approved Community Land Use Plan

Objective:	Assignment	Begin Date	Deadline
Review land status and formally approve supporting resolution	CLUPC	FY 2019 – Qtr. 2 January	
Procure services to hire consultant to conduct land analysis, survey and archeological reporting	CLUPC, Chapter Administration, Hired Consultant	FY 2019 – Qtr. 2 March	
Present supporting resolution for consideration to Pinedale Chapter membership	CLUPC, Chapter Officials, PDC community members	FY 2019 – Qtr. 4 July	

2.3.1.3 Goal# 3 – Continue to increase land base for the community (State, Fee, BLM, Executive-Order, Private and Land Buy-back areas)

Objective:	Assignment	Begin Date	Deadline
Identify land status that are not: Navajo Tribal Trust land within the Pinedale Chapter community service area	CLUPC	FY 2019 – Qtr. 4	
Meet with landholder owners and began discussing land transfers	CLUPC, land owners	FY 2020 – Qtr. 1	
Develop land use planning for each land transferred back to chapter		FY 2020 – Qtr. 2	

2.3.1.4 Goal# 4 – Continue to work closely with the chapter and when it becomes local governance certified under Navajo Nation code (NNC) 26 to ensure both documents are compatible

Objective:	Assignment	Begin Date	Deadline
Work with chapter administration on projects relevant to community land use	CLUPC, CSC	On-going	
Attend chapter worksession related to LGA review and development	CLUPC, CSC/AMS, Chapter officials	On-going	



2.3.1.5 *Goal#5 Create framework for Zoning ordinance and other ordinances*

Objective:	Assignment	Begin Date	Deadline
Research different zoning ordinances within the Navajo Nation, cities, County and State	CLUPC, CSC	FY 2020 – Qtr. 3	
Hold CLUPC worksession and create a draft policy on Zoning ordinance	CLUPC, CSC	FY 2020 – Qtr. 3	
Approval process for Zoning ordinance	CLUPC, CSC, NN DOJ, PDC	FY 2020 – Qtr. 4	

2.3.1.6 *Goal#6 – Partnering with Navajo Nation Division of Transportation to implement the approved Community Thoroughfare Plan*

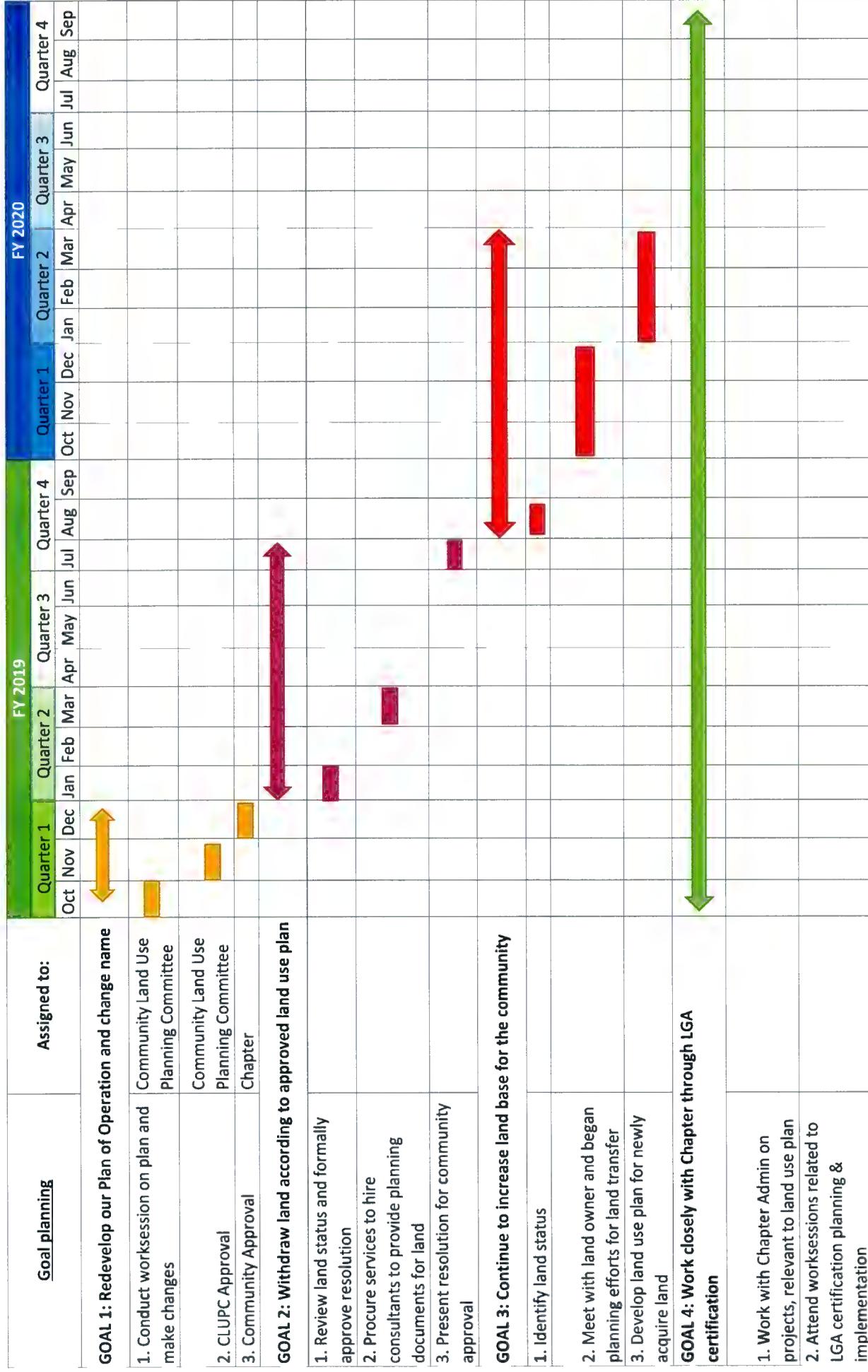
Objective:	Assignment	Begin Date	Deadline
Meet with NNDOT and discuss approved community Thoroughfare Plan	CLUPC, NNDOT	FY 2021 – Qtr. 1	
Create MOA/MOU between PDC and NNDOT on partnership	CLUPC, PDC, NNDOT	FY 20121– Qtr. 2	
Implement Thoroughfare Plan	CLUPC, NNDOT, PDC	FY 2021 – Qtr. 3	

2.3.1.7 *Goal #7 - Approving and issuing land for housing, economic, industrial and public/infrastructure development (communication tower, solar/wind turbine farm, farming, electric/water easement, Mobile Home Park, waste disposal, water tank, cemeteries and additional development)*

Objective:	Assignment	Begin Date	Deadline
Research Kayenta model on approving own land usage	CLUPC	FY 2020 – Qtr. 2	
Begin communication with Navajo Nation Council in possible pilot project	CLUPC, Chapter, Council Delegate	FY 2020 – Qtr. 3	



PINEDALE CHAPTER
GANNT CHART PLANNING FOR COMMUNITY LAND USE PLANNING COMMITTEE



2.4 RAINBOW FALLS CEMETERY

Project start date: November 1, 2018

Rainbow Falls Cemetery will be located about 2.5 miles north of Pinedale Chapter in the Rainbow Canyon area. The Pinedale Chapter Officials, Administration and CLUPC will work in collaborative effort to plan, design and construct a community cemetery with a total of 4 acres.

Proposed amenities: fenced property, access road and landscape.

2.5 SOUNDING WELL PARK

Project start date: November 1, 2018

Sounding Well Park will be located about 1.5 miles south of Pinedale Chapter near the historic old Pinedale Chapter building. The Chapter Officials, Administration and CLUPC will work in collaborative effort to plan, design and construct a community cemetery with a total of 3 acres.

Proposed amenities: Picnic table, arbor, benches and gravel parking.

Short-term planning: Basketball court, volleyball court, walking/hiking/bike trail and playground.

Long-range planning: paved parking, paved access road, veteran memorial, expanded picnic area, permanent restroom facilities and plaza.

2.6 TO BEEWHIISGANI HISTORICAL MARKER

Project start date: February 2019

The Tobeewhiisgani Historical marker will located old To Gani well, historic location/landmark of well. The well is permanently closed to public use since the early part of the 2000's. Community members expressed concerns to ensure the well has historic significants for future generations to visualize early hardship of community sustainability.

Proposed amenities: Historical marker

Long-term planning: gravel parking lot, plague and access road.



2.7 COMMITTEE IMPLEMENTATION PLAN

2.7.1 Introduction

The implementation plan identifies specific actions that the Pinedale Community Land Use Planning Committee should take to further their actions in community, economic, expansion and development of the community.

Time Frame				Action
Short Term (1-2 Years)	Intermediate (3-5 Years)	Long Term (5+ Years)	On Going	
				Create Land Development Standards to be consistent with CLUPC manual
				Develop a Zoning Ordinance for designated land use recommendation sites
				Create regional partnership to build economic hub with neighboring Chapters
				Annex nearby areas that have direct chapter affiliation for direct services
				Organize study group to implement 50 year plan
				Acquire Foutz land with collaboration with the Navajo Land Department and Navajo Nation Council
				Implement Chapter’s Infrastructure Capital Improvement Plan



2.8 TITLE 26 AUTHORITY

The Navajo Nation Council passed “Navajo Nation Local Governance Act” Leg. No. CAP-34-98 Enacted April 20, 1998 and signed by Former President Thomas Atcitty.

According to Section 2004 B.

“The Chapter, at a meeting duly-called chapter meeting, shall by resolution, vote to implement a community based land use plan, after the CLUPC has educated the community on the concepts, needs, and process for planning and implementing a community based land use plan. The community based land use plan shall project future community land needs, shown by location and extent, of areas identified for residential, commercial, industrial, and public purposes. The land use plan shall be based upon the guiding principles and vision as articulated by the community; along with information revealed in inventories and assessments of the natural, cultural, human resources, and community infrastructure; and, finally with consideration for the land-carrying capacity. Such a plan may also include, the following:

1. An open space plan which preserves for the people certain areas to be retained in their natural state or developed for recreational purposes.
2. A thoroughfare plan which provides information about the existing and proposed road network in relation to the land use of the surrounding area.
3. A community facilities plan which shows the location, type, capacity, and area served, of present and projected or required community facilities including, but not limited to, recreation areas, schools, libraries, and other public buildings. It will also show related public utilities and services and indicate how these services are associated with future land use.

2.9 ORIGINAL INTENT OF PLAN

The original intent of the Pinedale Chapter Land Use Plan Manual was created through NAHASDA (Native American Housing Assistance and Self Determination Act of 1996). NAHASDA provided grants to the Navajo Nation to assist all 110 chapters to create a land use plan for potential housing development and land use planning

CLUPC at the time recommended 3 potential housing development sites; however due to certain findings they were unable to begin planning & construction. Since the original approval of the plan, there have been economic growth and changes within the land use landscape.

2.10 PLANNING PROCESS - PARFAI

The Pinedale Chapter Community Based Land Use Planning Committee begin its planning initiative in January 2018 collaborating with the Chapter Officials and Administration. Flowchart (Figure 1 Planning Process for Pinedale CLUPC) refers to the process will take to get the plan draft, reviewed, finalized, approved and implemented.



PLANNING PROCESS FLOWCHART



Figure 1 Planning Process for Pinedale CLUPC

3 COMMUNITY PROFILE

3.1 GEOGRAPHICAL LOCATION

Pinedale Chapter boundary is located within the northwest of the State of New Mexico within McKinley County. The chapter boundary is located in Eastern Navajo Agency in the southeast corner of the Navajo Nation.

The Pinedale Chapter is located at latitude 35.610568° and longitude -108.449318° at Township 16N Range 15W Section 17 within the SWSE quadrant.

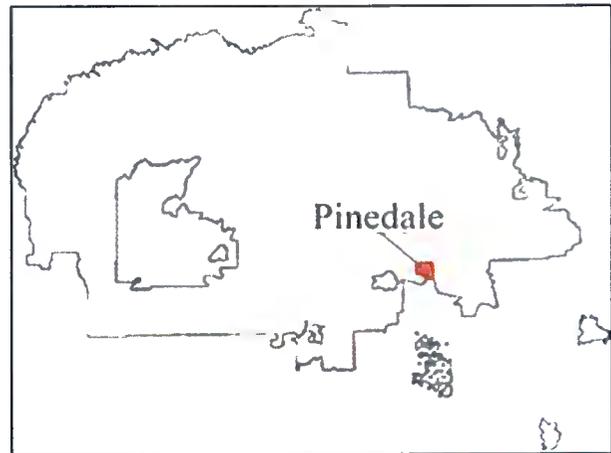


Figure 2 Location of Pinedale Chapter within the Navajo Nation boundary (Photo courtesy of Navajo Times)

3.2 ORIGINATION OF NAVAJO NAME

The Pinedale Chapter (*Tó Béełhwiisgání*) is located in the northwest quadrant of the State of New Mexico, centrally located in McKinley County. The late Bennie Y. Begay (Begay, 2004) says Pinedale originally had two artesian wells. One of the well was originally by the old Pinedale Store. During the dry seasons, the well would evaporate, and there would be hard crusted edges of dried mud surrounding the edges. That is where the name – Hardened Mud around water came to be – To baasghani. The Diné name *Tó Béełhwiisgání*, was named after a local artisan well founded by Hastín *Tó ganí*, who had dug the well.

3.3 FIRST CHAPTER HOUSE (1931)

According to Bennie Y. Begay (Begay, 2004), he was just a boy when the first chapter was built.

Here is Mr. Begay’s recount at that time:

“At that time, Sam Gray was the community leader and Chapter President. During those days, the leaders met outside near the old Pinedale Day School to discuss community issues. During that time, the people would come together and talk about who wanted to help with corn fields or house building and road improvement projects. They talked about who would be willing to offer help to those families that needed help. If there was any type of family conflict, the chapter officials helped the disputing families resolve their conflict.



Figure 3 First Pinedale Chapter House, located about 1/2 mile south of new chapter house



Sam Gray proposed that the Pinedale community build a chapter house, so the community members discussed who would be willing to help build the chapter. The community members hauled stones from Second Canyon by wagon. It took about three months to build the chapter house.

Some of the students from Wingate Vocational High School (WVHS) helped. Also, money was not a major part of the Navajo economy. The people in office volunteered their time. They even brought their own food to the worksites. They were not paid to be leaders. The students from WVHS built the roof for the chapter house. The wood for the roof came from Ft. Wingate. The older men built benches for the chapter house and finished the interior.

After the chapter house was finished, there was a dedication. Sheep was butchered to celebrate the opening. At the time, they did not have processed foods. They relied only on the crops they grew and their livestock.”

Bennie Y. Begay, a boy at the time, also assisted with the building of the Pinedale Chapter House. He helped with the mixing of the mud for the inlaying of the bricks.

3.4 LOCAL COMMUNITY NAMES

Every region, chapter and community has its unique name based off of land feature, clan leader, location or proximity of area. Here are some history community names and locations within Pinedale Chapter.

Navajo Name	English Name	Location & history
Toyeii'	Name of dam against ridge. Nooda'l bik'indashdo. Used for centuries	Ram Mesa District Southside of Navajo Route 11-49 near MP 2
Ifnáásjin	Fire Dance Ceremony	Ram Mesa District Southside of Navajo Route 11-49 near MP 3
Nááyizí háásná'	Pumpkin crawl up	Second Canyon District North of N-7054 in Second Canyon area
Yáániil K'íd		Pinedale District West of Lobo Valley Road
Yáátbeeh		Ram Mesa District Northside of Navajo Route 11-49 near MP 4 West of Pinedale Chapter
Béésh Sitiní	Lime metal (referred to culvert never used)	Rio Puerco District NW of Lobo Valley Road and Rainbow Trail Rd
Nááts'íilid	Rainbow Canyon	Rio Puerco District Rainbow Trail Road area, 2 miles north of store After it rains, a rainbow forms within the valley
Tsé Nizhoní	Pretty Rock	Pinedale District Northside of Navajo Route 11-49 near MP 6
Nák'eehtó Naaliní	Tear drop flowing	Rio Puerco District Waterfalls community, north of Navajo Route 11-49
Ch'íli Yaat'í	Chimney	Pinedale District South of Navajo Route 11-49 near MP 6



		Old cabin home owned by non-Navajo, home burned down and only chimney was left.
Nidishchíí yaa'ííh	Under the pine trees	Pinedale District South of Navajo Route 11-49 near MP 5
ligai da'áts'osí	Pointed White Rock mesa	Second Canyon District Navajo Route 7054
T'íis Naakezi	Falling Maple Canyon	Falling Maple District Southeast of Pinedale Chapter
Tse Alnii si'ani	Rock in the middle of the canyon (Table Rock)	
Tse yaa chaalheel	Darkness under the rock	North of Ram Mesa District Pipeline Road
Tsin ii'ahi	Near late Ben Yazzie area	Ram Mesa District NM Hwy 566 Northwest of Pinedale Chapter
Jaa neez habitiin	Mule track	West of Falling Maple District South of Midget Mesa Road Southwest of Pinedale Chapter
Tse shijaah	Sole pile of rock (Near Keith Begay residence)	Ram Mesa District North of Navajo Route 11-49 West of Pinedale Chapter
Xoshta	Cactus area	Second Canyon District Intersection of N7054 and NRt 1149
Naa na'aztiin	Curve road	West of Ram Mesa District Uphill Road and Old Churchrock Mine Road
Tsih daal chiih	Red Top	West of Ram Mesa District Uphill Road & Red Top Road
Yaa'iih tiin	Up Hill road	West of Ram Mesa District Uphill Road – Springsteads
Tse awozi sila	Rock Ridge area	East of Falling Maple District Rocky Ridge Road – Mariano Lake
To Diits'a'i	Sound well	Pinedale District Pinedale Loop near old Chapter house



3.5 OUR PAST AND PRESENT LEADERS

Every clan, community and region have a leader, one who leads for improving the land, bringing opportunities and setting a legacy for the future. Pinedale is known to set that example and to have leaders with many ideas, visions and leaving behind for generations to remember. We proudly introduce some of our known leaders here:

3.5.1 Navajo Tribal Vice-Chairman Johnny R. Thompson



Figure 4 L-R NN Vice-Chairman Johnny R. Thompson and NN Chairman Peter MacDonald.

Mr. Johnny R. Thompson a life-long resident of the Pinedale community served as the local Tribal Council Member representing District 16. He was elected Vice-Chairman with former Navajo Tribal Chairman Peter MacDonald Sr.

Mr. Thompson was raised around the Tsé Nizhoní area. His Diné clans are: Two Who Came to the Water Clan (Tó Baazhni'áazhi) and born for Towering House Clan (Kiy'áá'áánii). He is the son of the late Ben & Roberta Thompson and grandson of the late Sam Silversmith.

Mr. Thompson advocated to pave Navajo Route 11-49, lobbied to create a State-Nation partnership.



Figure 5 Vice-Chairman Thompson speaking before the State of New Mexico Legislature on tribal-state relations

3.5.2 Navajo Nation Speaker Lawrence T. Morgan



Figure 6 Official Portrait of Navajo Nation Speaker Lawrence T. Morgan.

Mr. Lawrence T. Morgan of Timber Ridge within the Pinedale community was elected to the Navajo Nation Council in 1992. He served 20 years representing Pinedale and Iyanbito Chapters. His clans are Black-streak wood clan (Tsinaajini) and born for Meadow Clan (Haltsooi). He is the son of Mr. Tom Morgan and the late Elizabeth Morgan.

During his 20 years on the Navajo Nation Council he was elected Speaker, a two year term serving more than 4 terms in his capacity. Mr. Morgan advocated for his people in Window Rock and Washington, D.C. He also served as Chairman of the Transportation

and Community Development Committee. He continues to serve his people through being elected as Chapter Vice-President, School Board member and recently on the Pinedale Community Land Use Planning Committee.



Figure 7 L-R Fmr. NN President Ben Shelly, Fmr. NN Speaker Lawrence T. Morgan and Fmr. NM Governor Bill Richardson. (Photo courtesy of Navajo-Hopi Observer)



3.5.3 Pinedale Community Naat'aaniis
Kai (Nelson Zuni's paternal grandfather)

Jake Segundo, Hástiin Táchiinii (Tom Morgan's maternal grandfather)

Sam Gray, Hástiin Daghái

Hástiin Ilnááshjiní

Sam Silversmith (Johnny R. Thompson's grandfather)

Charley Willie

Hastíin Tsoii (Bennie Y. Begay's father)

Brown Begay Sr.

Lee Smith, Hástiin Smith

Jeff King, Haské Yií íiyáh

Tom Silversmith, Chapter President 1947

Askii Martin, Chapter President

Ben Thompson, Chapter President

James Martin, Chapter President

Charley Brown (Hastíin íí ígai), Chapter Vice-President

Johnson Beocitty, Chapter Vice-President

Frank White, Chapter Vice-President

John Lee, Chapter Secretary/Treasurer

John Gruber, Chapter Secretary/Treasurer

3.5.4 Chapter President

Billie Norton 1955-1959

David Mason 1959-1983

Raphael Martin 1983-1987, 1992-2000, 2004-2008,
2016-current

Lawrence T. Morgan 1987-1992

Jesse Kirwin 2000-2004

Anslem Morgan 2008-2012

Willie Norton 2012-2016



Figure 8 The late Sam Silversmith B: 1869 D: 1964 (Photo: Gallup Independent)



Figure 9 The late Jeff King B: 1851?1865 D: 1964



Figure 10 L-R The late Howard Gorman, the late Keith Begay, the late Scott Preston, the late Billie Norton. Photo taken at dedication of new Chapter house on April 16, 1960 (Photo: Gallup Independent 04/18/1960)



3.5.5 Chapter Vice-President

Frank Willie 1955-1963, 1971-1975

Roberta Thompson 1963-1971

Bennie Y. Begay 1971-1987

Nelson Zuni 1987-1992, 1996-2000

Lewis B. Yazzie 1992-1996

Larry Miller 2000-2004

Anslem Morgan 2004-2008

Dorothy Harjo 2008-2012

Lawrence T. Morgan 2012-2014

Raphael Martin, 2014-2016

Clara Daye, 2016 – present

3.5.6 Chapter Secretary/Treasurer

Lee Smith 1955-1956

Keith Begay 1956-1971

Ford Y. Begay 1971-1980

Arlinda Keyanna 1980-1983

Lawrence T. Morgan 1983-1987

Betty Johnson 1987-1992

Anslem Morgan 1992-2000

Gladys Brodie 2000-2004

Sarah Jackson 2004-2016

Dorothy Harjo 2016 – present



3.6 COMMUNITY EDUCATION & PARTICIPATION PLAN

3.6.1 Introduction:

The purpose of the Community Education & Participation Plan is to inform, educate and involve community members in all aspect of land use planning process and public input in all forgoing matters relevant to local governance

3.6.2 Executive Summary:

The Pinedale Community Based Land Use Planning Committee (CLUPC) was created by the Pinedale Chapter. CLUPC composes of five (5) members selected by the community members’ through an approved resolution. CLUPC will inform the community through an approved Community Participation Plan about community land use planning by disseminating flyers & road signs, direct communication, public hearing, newsletter, media (radio & newspaper) report and social media.

3.6.3 Conducting a Community Hearing Process:

Pinedale CLUPC will be hosting continuance public hearing about land use planning. CLUPC will provide Community Participation process:

3.6.3.1 Community Awareness:

Objective	Assignment	Deadline	Completed
Draft & finalized Media notice	CLUPC - President	10 business days before hearing	
Dissemination of notice: Media & Social media; flyers & road sign	Chapter Administration	10 business days before hearing	

3.6.3.2 Community Education:

Objective	Assignment	Deadline	Completed
Thoroughly review plan: Pinedale community members, other public resources/entities,	CLUPC members	End of hearing	

3.6.3.3 Community Input:

Objective	Assignment	Deadline	Completed
Record public feedback	CLUPC – Secretary	After hearing	
Provide comment forms for recommendations of plan	Chapter Administration	After hearing	

3.6.4 Community Newsletter

Pinedale CLUPC will plan, develop and implement a local community newsletter relevant to planning, land, chapter news and information to the community. The community newsletter will be provided at least twice a month and be distributed locally in Pinedale, Churchrock and Mariano Lake communities for public awareness. CLUPC will also send out newsletter to community members through mailing address as provided during community survey:



3.6.4.1 *Community Awareness:*

Objective	Assignment	Deadline	Completed
Create newsletter for community	CLUPC, Administration	Second and fourth Friday of each month	

3.6.4.2 *Community Education:*

Objective	Assignment	Deadline	Completed
Provide administrative insight on projects, plans and updates	Administration	2 nd & 4 th Friday of each month	
Provide committee update on all community land use planning initiatives monthly	CLUPC	2 nd & 4 th Friday of each month	

3.6.4.3 *Community Input:*

Objective	Assignment	Deadline	Completed
Develop feedback form and attach to newsletter	CLUPC/Administration	On-going	
Share ideas/opinions/input during CLUPC/Chapter meetings	CLUPC, Admin, Chapter officials	On-going	

3.6.5 Recording process

Pinedale CLUPC will follow the Chapter's Five Management System – Records Manual. All records will be filed with the Chapter Community Services Coordinator and will become public document.



3.6.6 Public Meetings held:

Meeting type	Date/Time/Location	Purpose
Regular CLUPC Meeting	January 9, 2018 at 9:00 a.m. Pinedale Chapter	Regular CLUPC meeting: Plan of Operation, Burial sites, land purchase (Foutz), Worksession update
1st Worksession	January 25-26, 2018 NMSU – Grants, NM	Worksession: Plan and create outline for new CLUPC manual. Created Gantt chart for timeline of activities
Regular CLUPC Meeting	February 6, 2018 at 9:00 a.m. Pinedale Chapter	Regular CLUPC meeting: Updates on Survey Tech & Community Assessment and budget: Approval: Map Sec. 16/23, Thoroughfare Plan/Open Space. Community facilities Plan
Regular CLUPC Meeting	March 6, 2018 9:00 a.m. Pinedale Chapter	Regular CLUPC meeting: Community Assessment update, District Service Plan
Regular CLUPC Meeting	April 3, 2018 9:00 a.m. Pinedale Chapter	Regular CLUPC meeting: Proposals for Section 16/21, Rural addressing
2nd Worksession	April 9-11, 2018 Acoma, NM	Worksession: GIS review, Draft 1 compiling & map creation for Land Use plan.
Regular CLUPC Meeting	May 21, 2018 9:00 a.m. Pinedale Chapter	Regular CLUPC meeting: Review/approve Mission Statement, Vision, and Public Education & Participation Plan. Thoroughfare Plan
Regular CLUPC Meeting	June 5, 2018 9:00 a.m. Pinedale Chapter	Regular CLUPC meeting: Review/approve Mission Statement, Vision, and Public Education & Participation Plan. Thoroughfare Plan
Public Hearing	June 18, 2018 10:00 a.m. Pinedale Chapter House	CLUPC conducted public hearing on Community Land Use Manual. Public input from members of Pinedale Chapter
Regular CLUPC Meeting	August 14, 2018 9:00 a.m. Pinedale Chapter	CLUPC 2 nd public hearing updates & planning, finalize agenda for hearing
Public Hearing #2	August 17, 2018	End of 60 comment period and final CLUPC hearing on manual
Special CLUPC meeting	September 25, 2018	Meet with Council Delegate to discuss plans to begin CLUPC manual certification.



3.7 COMMUNITY DEMOGRAPHICS

3.7.1 Community Survey

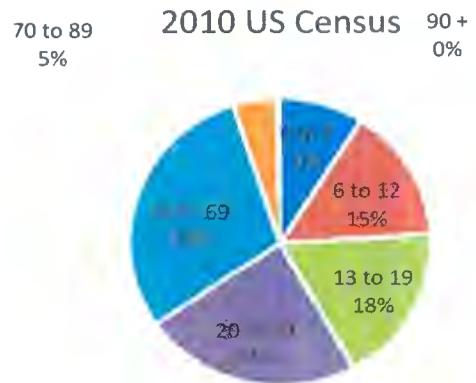
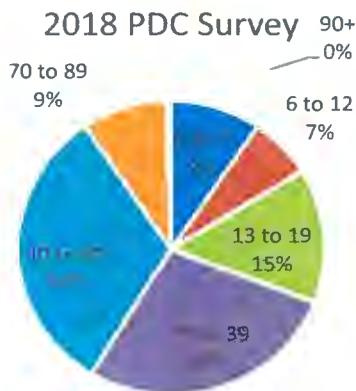
The Pinedale Chapter Administration in collaboration with the Community Based Land Use Planning Committee and Officials agreed to conduct a survey on the community, grazing and rural address. During one of its worksession, the group discussed creating a survey and hiring local community members to conduct the surveys throughout the community. The survey reflects similar data from the 2010 U.S. Census:

There was a total of 309 household that have been surveyed, compared to 293 household that were surveyed by the 2010 U.S. Census.

3.7.2 Population

According to the Survey responses there was a total of 1061 community members. The 2010 US Census has a total of 1,109 community members.

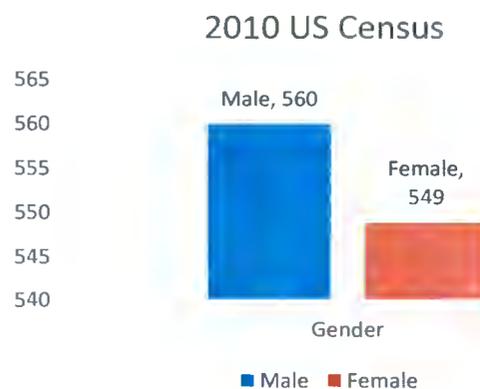
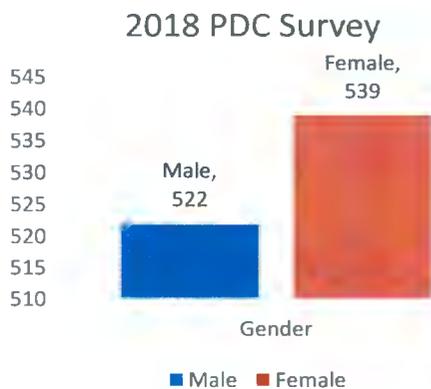
2018 PINEDALE CHAPTER SURVEY			2010 US CENSUS DATA			Change 10 to 18
Household age	Total	Percent	Household age	Total	Percent	
0 to 5	101	9.53%	0 to 5	100	9.01%	0.52
6 to 12	71	6.68%	6 to 12	166	14.97%	-8.29
13 to 19	157	14.79%	13 to 19	199	17.94%	-3.15
20 to 39	294	27.71%	20 to 39	260	23.45%	4.26
40 to 69	338	31.87%	40 to 69	328	29.58%	2.29
70 to 89	95	8.98%	70 to 89	51	4.60%	4.38
90 +	5	0.44%	90 +	5	0.45%	-0.01
TOTAL	1061		TOTAL	1,109		0.00



Our population demographics show that we are getting older, a steep climb in age ratio from 2010 to 2018. Age 20 to 39 and Age 70 to 89 shows increase of more than 4%. The average age is 22 years old for the 2018 PDC Survey vs. 24.08 for the 2010 US Census

3.7.3 Population by Gender

2018 PDC Survey			2010 US Census		
Gender	Total	%	Gender	Total	%
Female	539	50.80	Female	549	49.50
Male	522	49.20	Male	560	50.50
Total	1061	100%	Total	1109	100%



3.7.4 Community Clans

3.7.4.1 Maternal Clan

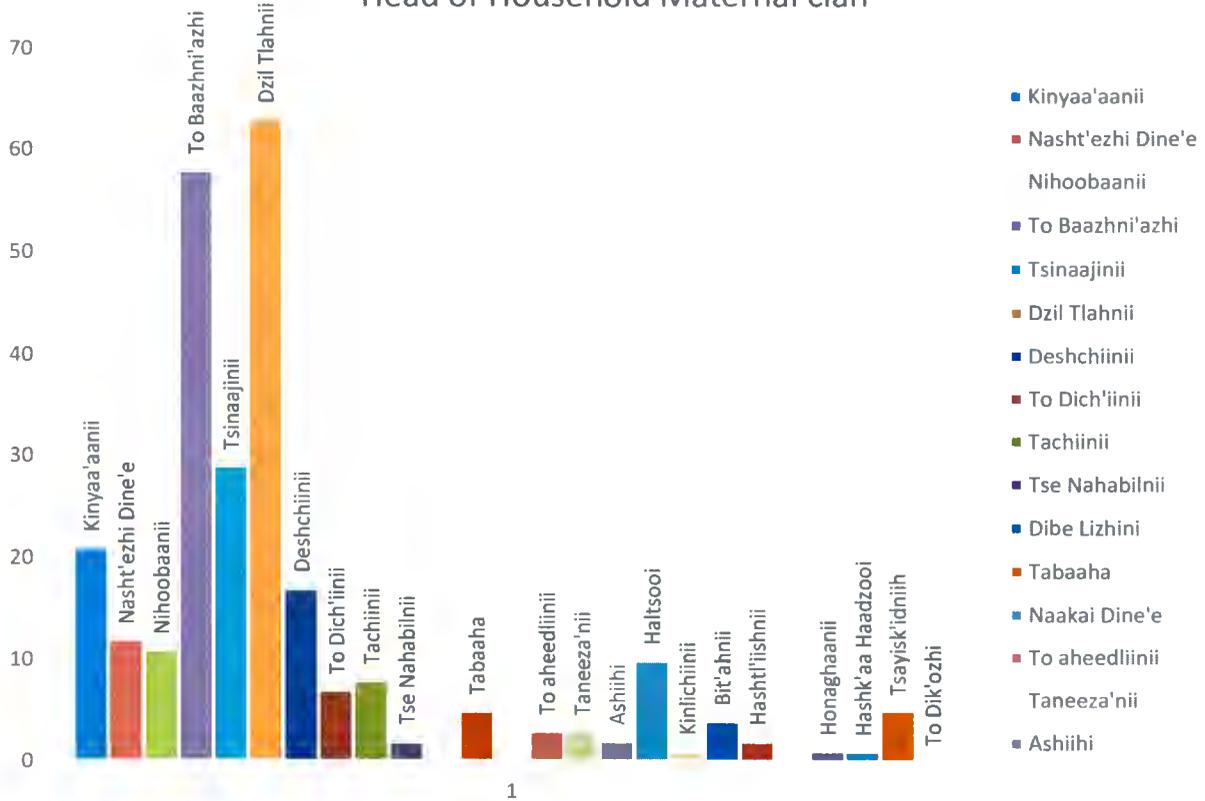
Community head of household were asked what their maternal and paternal clans were: According to the 2018 PDC Survey, the top five Diné clans are: Dził t'ahnii (Mountain Cove clan), Tó Baazhni'ázhi (Two who came to water clan), Tsináájiníí (Black streak wood clan), Kinyaa'áanii (Towering House clan), and Dshchííiníí (Start of the Red Streak clan).

The survey found that the five top clans are dominated in certain areas of Pinedale community. The Mountain Cove clan are well dominated in Second Canyon area, the Two Who Came to Water clan are dominate around Pinedale Chapter, Rainbow Canyon, Tse Nizhoni and Water Falls area; the Black streak wood clan is dominated in western Pinedale area and Timber Ridge area; the Towering House clan are dominates at Falling Maple Canyon area.

Other clans such as: Zuni Clan, Gray streaked-ends clan and Bitterwater clan also had some local domination. Many Zuni clan members dominated Far western areas of Pinedale, Gray streaked-end clan are dominated in west central Pinedale and west-end of Rainbow Canyon. The Bitter Water clan are well represented in the west central areas of Pinedale. See graph on next page to show clan affiliation for each household member.



Head of Household Maternal clan

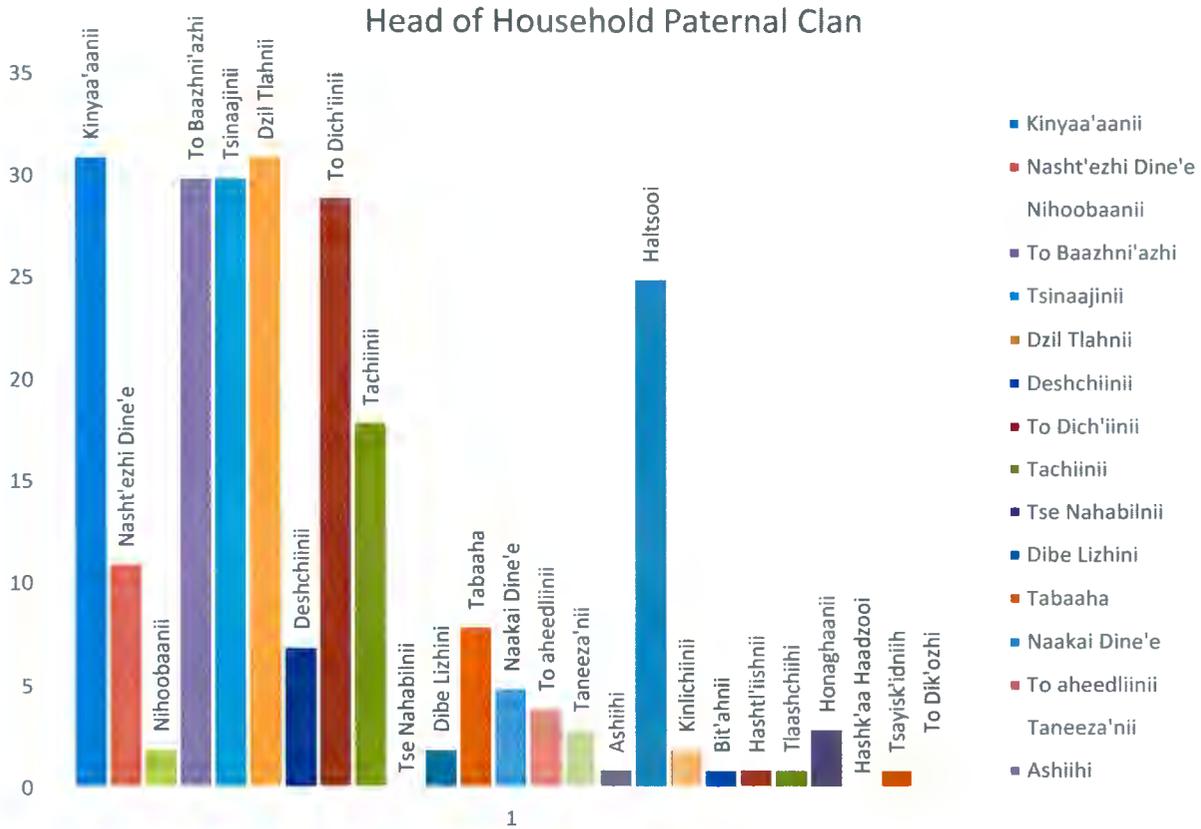


CLAN NAME	TOTAL		TOTAL
KINYAA'AANII	21	TANEEZA'NII	3
NASHT'EZHI DINE'E	12	ASHIIHI	2
NIHOOBAANII	11	HALTSOOI	10
TO BAAZHNI'AZHI	58	KINLICHIIINII	1
TSINAAJINII	29	BIT'AHNII	4
DZIL TLAHNII	63	HASHTL'IISHNII	2
DESHCHIIINII	17	TLAASHCHIIHI	0
TO DICH'IINII	7	HONAGHAANII	1
TACHIIINII	8	HASHK'AA HAADZOOI	1
TSE NAHABILNII	2	TSAYISK'IDNIIH	5
DIBE LIZHINI	0	TO DIK'OZHI	0
TABAHA	5	DECLINE TO STATE	44
NAAKAI DINE'E	0		
TO AHEEDLIINII	3	TOTAL ANSWERED	309



3.7.4.2 Paternal Clan

The top five paternal clans of head of household members are: Towering House clan, Mountain Cove clan, Two Who Came to Water clan, Black streaked wood clan and Bitter Water clan. There are many more clans that hold stories on how they came to Pinedale. We see trends such as most Northern Pinedale community members with Mountain Cove clan; whereas western Pinedale is dominated by Black Streaked wood clan and Bitter Water clan.



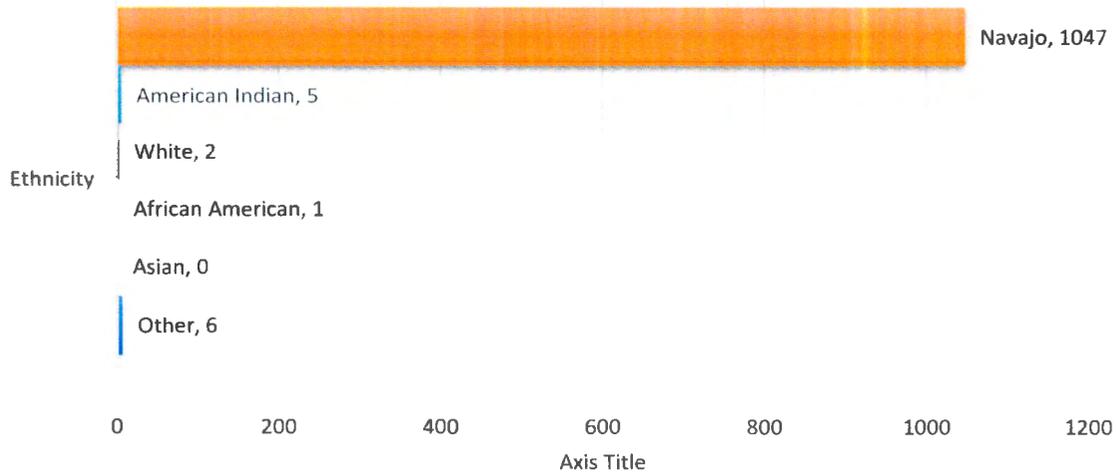
CLAN NAMES	TOTAL				
KINYAA'AANII	31	TSE NAHABILNII	0	BIT'AHNII	1
NASHT'EZHI DINE'E	11	DIBE LIZHINI	2	HASHTL'IISHNII	1
NIHOOBAANII	2	TABAHAHA	8	TLAASHCHIIHI	1
TO BAAZHNI'AZHI	30	NAAKAI DINE'E	5	HONAGHAANII	3
TSINAAJINII	30	TO AHEEDLIINII	4	HASHK'AA HAADZOOI	0
DZIL TLAHNII	31	TANEEZA'NII	3	TSAYISK'IDNIIH	1
DESHCHIINII	7	ASHIIHI	1	TO DIK'OZHI	2
TO DICH'IINII	29	HALTSOOI	25	DECLINE TO STATE	63
TACHIINII	18	KINLICHIIINII	2	TOTAL	309



3.7.5 Pinedale Community Ethnicity

According to the survey, the Diné people make up 99.05% of the community. The other 0.95% are other American Indian, White, African American, Asian American and other.

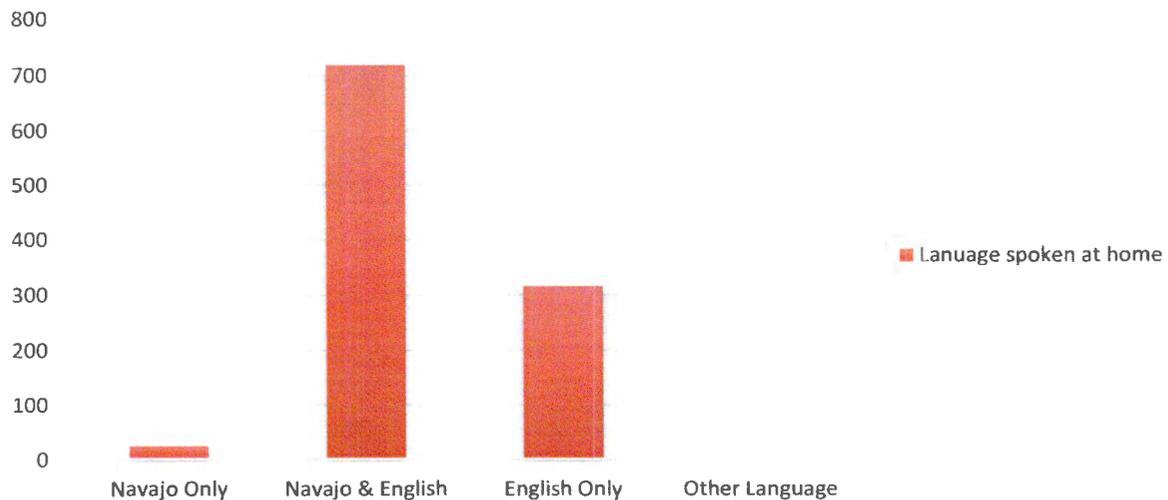
2018 PDC Survey - TOTAL ETHNICITY



3.7.6 Pinedale's language spoken at home

This survey shows that only 67.77% of the community speak/understand Navajo/English, while 29.78% of the community only speak/understand English. Only 2.36% speak/understand fluent Diné. The 2005 approved Pinedale CLUPC manual shows that 83.9% spoke and understood Navajo/English and only 16.1% spoke/understood only English.

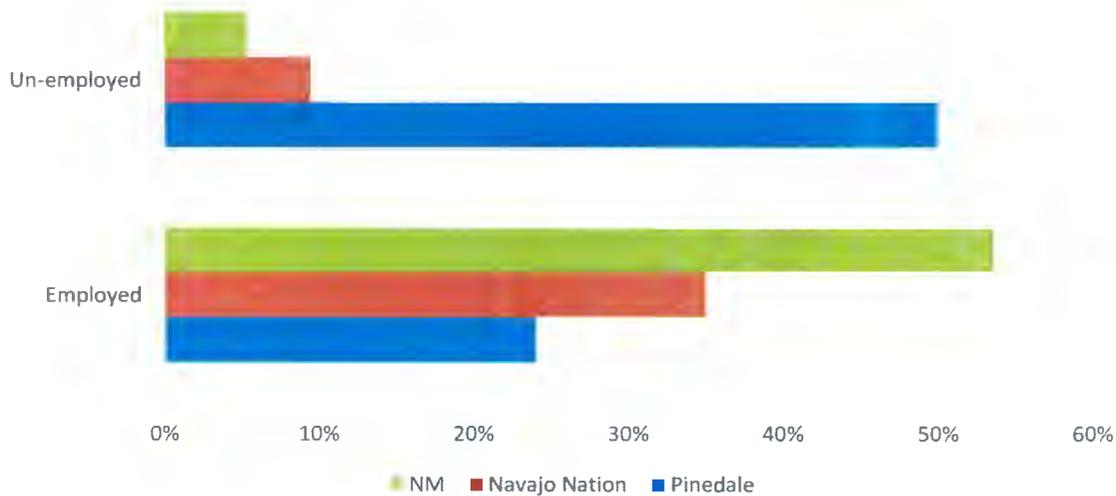
2018 PDC Survey - Language spoken at home



3.7.7 Employment Status

All 309 surveys included employment status of the head of household. According to the survey 154 (50%) responded they are currently not employed, 74 (24%) said they were employed and 24 (8%) said there were self-employed. 24 (11%) are retired, 8 (3%) are other employed, and 15 (5%) decline to answer.

Pinedale, NN and New Mexico Employment status



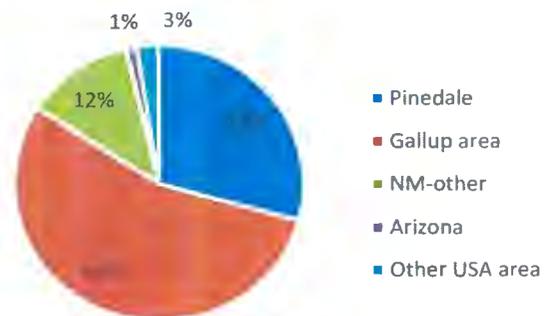
Source: PDC 2018 Survey and NM Dept. of Workforce Solution “Tribal Demographic and Employment Data – Mark Flaherty”

3.7.8 Employment location

According to the PDC 2018 survey those who answered were employed/self-employed 55% stated their employment in the Gallup area (Ft. Wingate, Churchrock, Mentmore, and Gamerco), 29% stated they work in Pinedale area (Pinedale, Mariano Lake and Smith Lake), 12% work in other NM areas such as Albuquerque, Grants, Santa Fe and Farmington. 3% work in other States throughout the United States, while 1% worked in Arizona (Window Rock, Phoenix and Flagstaff).

This survey only requested the Head of Household’s employment status and location. It does not reflect the entire household.

Employment location



3.7.9 Pinedale community Telecommunication

The community members were asked what type of telecommunication service they used at their home. Nearly 64% utilize a cell phone. Those with cell phone were asked what type of cell service they had: 37% have 4G service, 29% have 3G service, 20% have 4GLTE service and 15% have 2G service.

Type of communication utilized:	Total	(%)
Home Phone	44	14%
Cell Phone	199	64%
No answer	66	21%

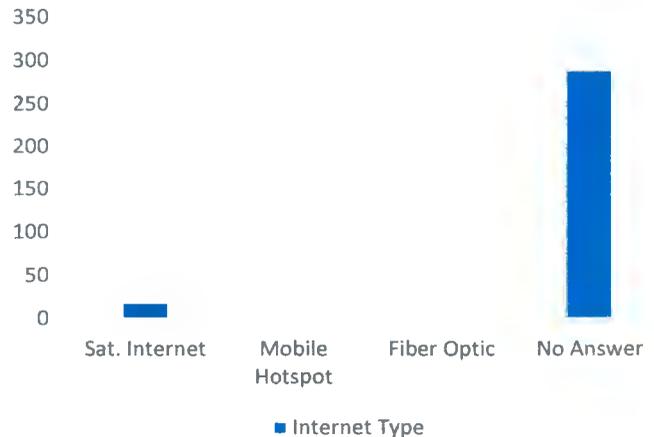


3.7.10 Pinedale community internet service

The Pinedale community has little or no type of high speed internet throughout the community. This survey shows that only a few have satellite internet from Hughes Net.

The Pinedale Chapter also utilizes satellite internet and for this reason does not provide public Internet to community members.

Type of internet services:	Total	(%)
Sat. Internet	19	6%
Mobile Hotspot	1	0%
Fiber Optic	0	0%
No Answer	289	94%

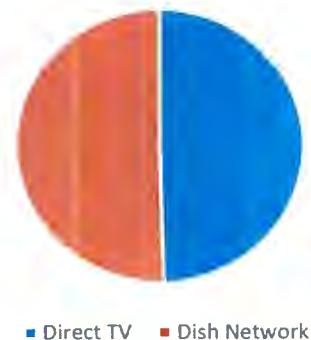


3.7.11 Pinedale Satellite T.V. providers

Of the 309 survey taken, 127 household answered that they receive satellite T.V. service from either Dish Network or Direct TV.

Type of Satellite TV provider	Total	(%)
Dish Network	63	20%
Direct TV	64	21%
No answer	182	59%

Type of Satellite TV provider



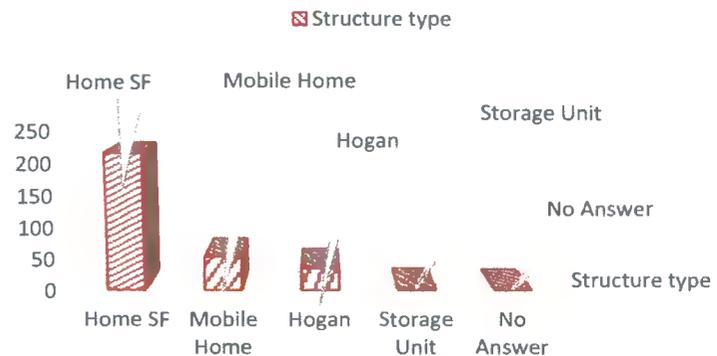
3.7.12 Pinedale community structure type

According to the 2010 US Census, there were 370 housing units in Pinedale community.

The 2018 Pinedale Chapter survey concluded there were 400 structures throughout the community. There was only one building that was being constructed at time of survey.

Home SF	216	70%
Mobile Home	54	17%
Hogan	36	12%
Storage Unit	2	1%
No answer	1	0%
TOTAL	309	100%

2018 PDC SURVEY STRUCTURE TYPE



3.7.13 Existing Housing Issue

Of the 309 structures conducted, 254 (80%) has electric and 55 (18%) decline to answer or had no electric in their home. Nearly 238 (78%) have indoor plumbing to their home and 71 (23%) decline to answer or had no running water into their home. 205 (66%) homes have a septic system in their home and 104 (34%) do not have no sort of septic tank in their home.

3.7.14 Heating Source

According to the survey completed, nearly 283 (62%) of structures use woods for heating source to their home. 83 (20%) utilize coal, 40 (9%) use LP propane, 21 (5%) use wood pellet and 18 (4%) use diesel and other source of heat for their home.

Wood	260	62%
Coal	83	20%
LP Propane	40	9%
Wood Pellet	21	5%
Other	18	4%



4 NATURAL RESOURCE INVENTORY

The purpose of a natural resource inventory (NRI) is to provide building blocks for comprehensive land-use and future conservation planning. It also allows natural resource information to be included in local planning and future zoning.

This NRI will include maps and data on geology and soils, water resources, habitats and wildlife, climate, and cultural resources.

4.1 GEOLOGY AND SOILS

4.1.1 Geology formation

The geology formation of the Pinedale community are as following:

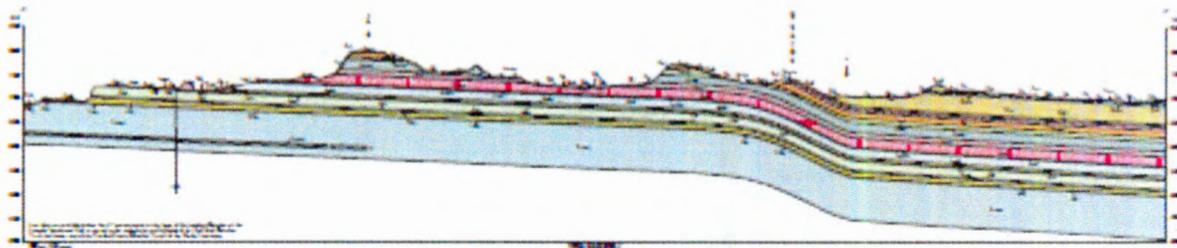


Figure 11 Geology formation of the Pinedale Quadrangle

Pinedale Quadrangle

Quaternary (Holocene, Pleistocene) Qa1, Qa2, Qa3, Qoa, Qe, Qoe, Qp, af, Qf, Qc, Qt, Ql

Cretaceous (Upper Cretaceous) Kga, Km, Kmj, Kdt, Kmw, Kd

Jurassic (Upper Jurassic, Middle Jurassic) Jmbs, Jmb, Jmw, Jmrs, Jmr, Jcsu, Jcsm, Jcsi, Jwb, Jwt, Jcu, Jer, Jei

Triassic (Upper Triassic) TR co, TR cpc, TR cpu, TR cpt

Oak Spring Quadrangle

Quaternary (Holocene, Holocene and Pleistocene) Qar, Qal, Qoa, Ql, Qe, Qc, Qt

Cretaceous (Upper Cretaceous) Kmfc, Kpl, Kms, Kplh, Kplh, Kcg, Kcda, Kmm, Kcdi, Kgt, Kg, Kgb, Km, Kga

Jurassic (Upper Jurassic) Jmb, Jmw, Jss,, Jmr

4.1.2 Soils

Soils are the unconsolidated weathered material that covers the surface of the earth. Soil is used to support building foundations, grow food, filter groundwater recharge, and sustain vegetation and wildlife habitat. Understanding the different type of soil properties and limitation will assist in future land use planning, conservation and preserving natural resources and habitats.



The Chapter Administration conducted a soil analysis of the entire Pinedale community through an Area of Interest (AOI) and generated a study report from the USDA website.

According to the Soil Resource report compiled by UDSA on the type of soil within the Pinedale community there are 26 different soil types throughout AOI. The table below lists the type of soil total, total acreage of soil and percent. There is also a detail map of each location of soil.

The climate within the AOI is: Mean annual precipitation of 10-16 inch per year, mean annual air temperature range from 46F to 49F degrees. Only about 643.5 acres 1.6% of land is suitable for farming of 39,932.6 100% reported.

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
230	Sparank-San Mateo-Zia complex, 0 to 3 percent slopes	2,483.9	6.2%
241	Mentmore loam, 1 to 8 percent slopes	4,505.7	11.3%
242	Gish-Mentmore complex, 1 to 8 percent slopes	1,810.1	4.5%
244	Buckle fine sandy loam, 1 to 8 percent slopes	1,579.7	4.0%
245	Buckle-Gapmesa-Barboncito complex, 1 to 6 percent slopes	584.1	1.5%
258	Eagleye-Atchee-Rock outcrop complex, 2 to 35% percent slopes	2.5	0.0%
265	Uranium mined lands	512.3	1.3%
290	Rock outcrop-Westmion-Skyvillage complex, 30 to 80 percent slopes	3,019.3	7.6%
291	Rock outcrop-Eagleye-Atchee complex, 35 to 70 percent slopes	2,439.6	6.1%
305	Celavar-Atarque complex, 1 to 8 percent slopes	1,385.7	3.5%
310	Parkelei sandy loam 1 to 8 percent slopes	111.3	0.3%
315	Flugle-Fragua complex, 1 to 10 percent slopes	1,712.0	4.3%
317	Highdye-Evpark-Bryway complex, 2 to 20 percent slopes	0.0	0.0%
320	Parkelei-Fraguni complex, 1 to 8 percent slopes	461.8	1.2%
332	Evpark-Arabrab complex, 2-6 percent slopes	1,763.5	4.4%
338	Zyme-Lockerby association, 5 to 35 percent slopes	3,252.2	8.1%
350	Toldohn-Vessila-Rock outcrop 8 to 35 percent slopes	7,995.9	20.0%
351	Rock outcrop-Vessilla complex, 35 to 70 percent slopes	590.7	1.5%
352	Zia sandy loam, 1 to 5 percent slopes	532.2	1.3%
355	Rizno-Tekapo-Rock outcrop complex, 2 to 45 percent slopes	32.2	0.1%
360	Hosta-Concho association, 0 to 5 percent slopes	245.4	0.6%
365	Vesilla-Rock outcrop complex, 2 to 15 percent slopes	1,893.7	4.7%
375	Todest-Shadilto complex, 2 to 8 percent slopes	2,447.5	6.1%
380	Berryhill-Casamero clays, 2 to 10 percent complex	97.8	0.2%



404	Rock outcrop-Techado-Stozuni complex, 5 to 60 percent complex	312.1	0.8%
555	Parkelei-Evpark fine sandy loams, 2 to 8 percent slopes	161.6	0.4%
Totals for Area of Interest		39,932.6	100.0%

4.2 WATER RESOURCES

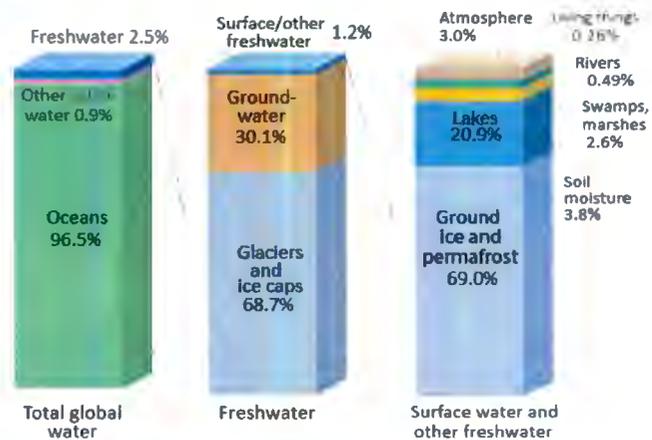
4.2.1 Groundwater and Aquifers

Water is vital resource for drinking water and an element of habitat suitability for a wide array of aquatic organism. In addition to these use, the movement of water through atmosphere, streams, lakes, and aquifers carries necessary materials such as dissolved oxygen and nutrients and harmful pollutants. The availability of water as well as quantity affects the natural factors such as soil, vegetation, and geology formations. Disturbance by human activities affect the overall state of water resources, by properly planning for future land use it is important to remember the vital resource. Water resource activities must be balance between usage and natural functioning aquatic ecosystems.

According to the USGS, Less than two and one half (2.5%) percent of the total water on Earth is freshwater, and other saline water make up 0.9% and the ocean making up the vast majority of 96.5%. Of the 2.5% of freshwater less than 1.2% is surface/other freshwater. The rest 98.8% is inaccessible for use. The 1.2% consists of 69% ground ice and permafrost 20.9% lakes and the rest from the atmosphere, living things, rivers, swaps, marshes and soil moisture.

Water continues to be recycled through “the water cycle” see figure 12. Water evaporates into the atmosphere, the water vapor condenses into clouds and falls back

Where is Earth’s Water?



Source: Igor Shiklomanov's chapter "World fresh water resources" in Peter H. Gleick (editor), 1993, *Water in Crisis: A Guide to the World's Fresh Water Resources*.
NOTE: Numbers are rounded, so percent summations may not add to 100.

Figure 12 Where is Earth's Water? photo by USGS

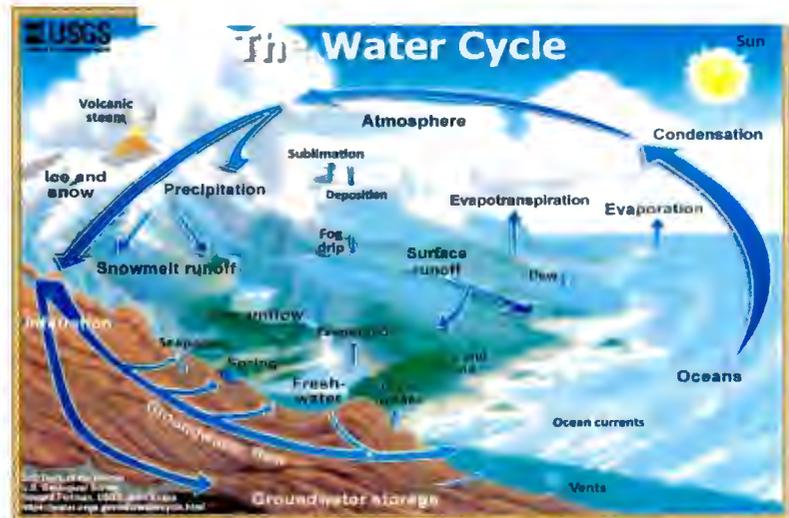


Figure 13 "The Water Cycle" Photo from USGS



to earth as precipitation in the form of rain, snow, sleet, and hail.

4.2.1.1 San Juan Basin

The San Juan Basin was formed during the Laramide orogeny (Late Cretaceous-early Tertiary age) at the eastern edge of the Colorado Plateau. The basin is located in the southwest corner of Colorado, northwest New Mexico and little areas of northeast Arizona.

4.2.1.2 Aquifer

4.2.1.2.1 Gallup Sandstone

The Gallup Sandstone¹ is located within the Gallup aquifer. It is Late Cretaceous age consisting of light-gray, buff, and pale-red very fine to very coarse grain sandstone and thin to thick beds of shale, thickness ranges from 180 to 350 feet.

According to the report the Gallup Sandstone, the principal aquifer yields 260 gpm of water to wells in the area. The Gallup Sandstone is recharged from precipitations and run-offs and recharging a small levels due to heavy usage.

There is one well site within the Gallup sandstone – Gallup aquifer that provides domestic water use to the communities within Pinedale Chapter. Well site # 353816108170101 16.N14W.11.2223 located in Mariano Lake, NM. The well depth is 1375 feet, the hole depth is 1400 feet it is 7,365.00 feet above NGVD29.

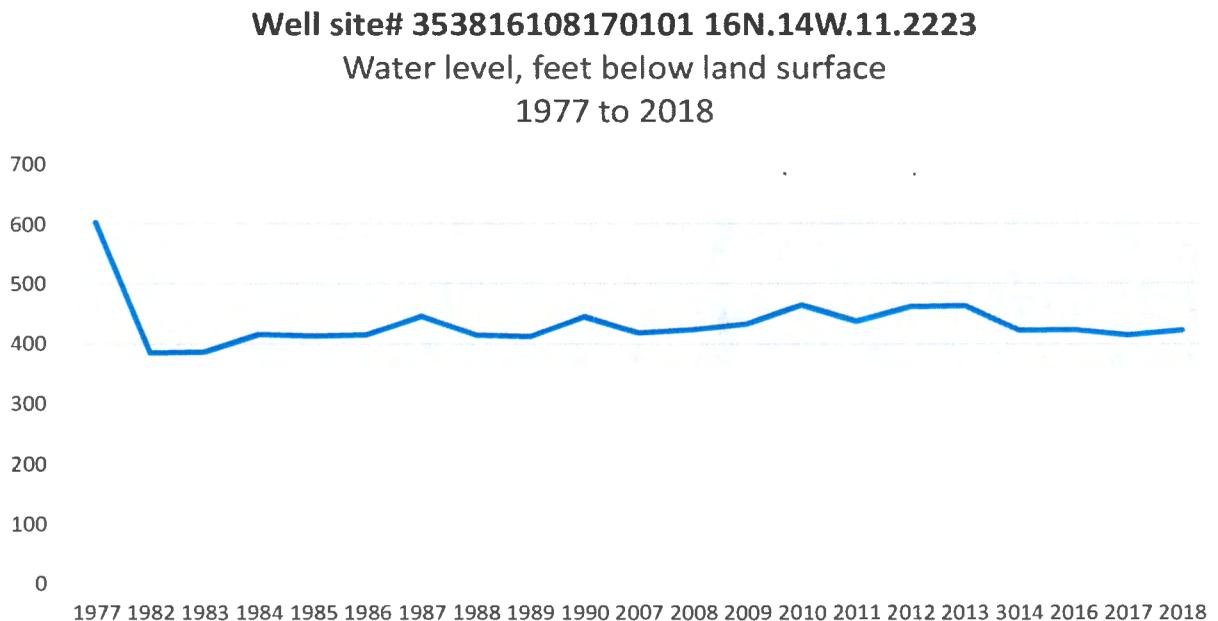


Figure 14 Source: USGS - National Water Information System: Web Interface. Ground Water levels for the nation. https://nwis.waterdata.usgs.gov/nwis/gwlevels?site_no=353816108170101&agency_cd=USGS&format=html

¹ Availability of Ground Water in the Gallup area, New Mexico By S. W. West 1961



4.2.2 Surface Water

4.2.2.1 Run-offs & Stream directions

All run-offs within the Pinedale community move towards the Rio Puerco. The stream then heads west and southwest down towards the community of Springstead and flows into the Little Colorado River.

4.2.2.2 Lakes

There are no active lakes within the Pinedale community. However there is one in Mariano Lake, since the monsoon pattern began in May 2018, the lake has refilled and is currently at 20% capacity.

4.2.2.3 Earthen Dams

A recent field report conducted by the Chapter Administration concluded there are 24 Earthen Dams that are active. Earthen dams are vital to grazing permittees, due to current drought conditions plans are being drafted to repair and upgrade the many active dams before the first major summer monsoon .

Earthen dams provide water resources for livestock. According to the Navajo Nation Department of Water Resource there are over 1,500 Earthen Stock ponds throughout the reservation. Many of the dams currently have yet to receive adequate repairs and renovations due to lack of Chapter support and funding.

TOTAL EARTHEN DAMS WITHIN THE PINEDALE CHAPTER	
District Name	Total Earthen Dams
Ram Mesa District	6
West Second Canyon District	3
Fallen Maple Canyon District	4
Pinedale District	4
Rio Puerco District	7
Total	24

4.2.2.4 Windmills

A 2015 field assessment completed by CLUPC indicated there are 6 windmills located at the following locations: Waterfall road, 2nd Canyon Road near Zunie residence, Midget Mesa Road, Lobo Valley Road and Chestnut Canyon Road. There is also two windmill that are no longer operational they are: Uphill Road and Old Churchrock mine road.

4.2.2.5 Old pump wells

There were previous operational pump wells that are no longer operate, they are: N-1149 by First Canyon Road, North of Nellie Thompson's resident, Keith Begay (drill well) and South of Pinedale Chapter – 7 wells removed.



5 OPEN SPACE PLAN

The open space & recreation concept identifies areas that should be preserved for the benefit of community use and enjoyment. Areas that are culturally significant, contain significant wildlife and vegetation area, along with drainage corridors, benefit the entire community.

The proposed open space plan is an initial start for the Pinedale planning area. As the population demographics and numbers change, the committee needs to revisit and revise the plan in accordance to future community needs and growth.

5.1 EXECUTIVE SUMMARY

The Pinedale Chapter Administration, Officials and its committees seek to identify cultural, historical, and natural resources which should be considered for protection, preservation and restoration over the next five years. This plan also seeks to identify recreation needs and Pinedale Chapter's role in providing facilities to meet future needs. There are two main goals that will provide a guiding principle for an Open Space Plan.



Figure 15 Tse Nizhoni (Pretty Rock) a rock formation located 2 miles east of the Chapter. This significant rock formation has many traditional stories and served as a defensive barricade to many Navajo families at the beginning of discovery of the new world.

5.2 INTRODUCTION

The Pinedale Chapter has a total of 40,949.96 according to its 2005 approved Land Use manual. Pinedale lands consists of: Navajo Nation Tribal Trust, New Mexico State Land, Bureau of Land Management, Navajo Tribal Fee and Private Land. With this diverse set of land, most of Eastern Navajo Agency chapters are within the "checkerboard lands"; this type of land make-up makes it difficult to obtain land withdrawals and right-of-way in a reasonable time.

5.3 PLAN PURPOSE

The purpose of this plan is to identify any cultural, historical, and natural resources throughout the community and preserve those resources through an open space plan and policy. This plan will visualize future open space usage and create a Parks & Recreation department under the chapter administration.

5.4 VISION STATEMENT & GOALS

Our visions and goals are relevant to our principles of preserving and protecting our environment.

5.4.1 Vision Statement

Connecting our people to mother earth and father sky through land resources of Pinedale Chapter



5.4.2 Goals

1. Research, acquire and develop park land and recreation facilities to meet the demand of the Pinedale Chapter residents without adversely affecting current natural resources.
2. Preserve large tracts of natural, agricultural and traditional rural landscapes that will provide space for resource protection and recreation benefits.

5.5 CLASSIFICATION SYSTEM

The Pinedale Chapter hereby creates the following open space classification system into three categories:

- Recreational area
- Natural Resource Areas
- Historical/Cultural Sites

5.6 EXISTING LAND & FACILITY INVENTORY

5.6.1 Recreational Area

A recreation area is created to benefit the community through healthy and life initiatives. There are currently no identified location within the Pinedale community. However there is the Red Rock Park, located 10 miles southeast of Pinedale Chapter house in Churchrock, New Mexico.

5.6.1.1 Red Rock Park

Excerpt from City of Gallup's website on the Red Rock Park:

Red Rock Park is the crown jewel of Gallup's parks and recreation system. Cradled by spectacular red cliffs formed over 200 million years ago in the Age of the Dinosaurs, the park combines a glimpse into past civilizations with modern amenities to serve the needs of contemporary residents and guests.

Facilities

The park offers comfortable campground facilities with electrical and water hookups, picnic areas, restrooms and showers. There is also a camp store and post office on-site. Call (505) 722-3839 for information and reservations.

The 5,000 seat Red Rock Arena is well-suited for outdoor performances including rodeos and other activities. The lighted arena can be configured for roughstock and timed-event performances and there are approximately 600 permanent horse stalls. The convention center has a theatre, meeting rooms and exhibit space.

Activities

Red Rock Park is proud to present a full slate of sports, entertainment and cultural events. Rodeo events feature prominently throughout the summer months. The annual Lions Club Rodeo is ranked with the best in the state of New Mexico. For the past several years, the nation's best youth cowboys and cowgirls have competed in the Red Rock arena at the National Junior High School Finals Rodeo. The USTRC team roping series comes to Gallup in July, as well as perhaps the most anticipated event when bull riding stars gather to "Rock the Rocks" at the Wild Thing Bullriding Championship.



Every year for nearly a century, Gallup has been the site of the world famous Inter-Tribal Indian Ceremonial celebrated in August. Native American tribe members attired in colorful dress perform traditional dances and music, display jewelry and crafts, and tempt visitors with authentic cuisine. The Ceremonial Rodeo filled with Native performers is also a highlight each year. The modern ceremonial has added new activities such as a wine-tasting and ceremonial half-marathon and 5K run.

The Red Rock Balloon Festival takes flight the first weekend of December each year. As one of the world's largest balloon rallies, you can expect to see over 100 balloons soar above the stunning red rock landscape.

5.6.2 Natural Resource Areas

A natural resource area is an area of interest set aside for protection of valuable natural environment. This includes habitat protection and open space preservation. Recreation within these areas should be limited due to the preservation of its current state.

5.6.2.1 Overview

Lands protected within these areas should be large, contiguous blocks that may include a mixture of agricultural, steep topography, and prairie. Natural Resource Area will have no land use or zoning use to be implemented

5.6.2.2 Inventory

There are no inventory for Natural Resources Area. Pinedale CLUPC will conduct public hearings and designate some locations

5.6.3 Historical/Cultural Sites

A historical/cultural site consists of land that is specifically set aside for preservation, restoration, or reconstruction of features significant to the local history and Dine cultural heritage. This will include: buildings, archaeological sites and ceremonial grounds.

5.6.3.1 Overview

Pinedale Chapter has several historical and cultural sites throughout the community. Some significant historical sites include: Old Pinedale Chapter House, and old Pinedale Day School site. There are also countless Dine traditional sites that hosted previous ceremonies and continuous ceremonies. Those sites are reflected on the map as listed in the next page

5.7 PROPOSED COMMUNITY PARK

The Committee in collaboration with the Administration and Officials are planning to create the first community park, Sounding Well Park. This park will be located in Executive Order lands just south of the Pinedale Chapter house.

Funds from the Unhealthy food tax and Capital Budget funds will be used to invest in the park and future planning efforts to improve community land use planning



Ceremony map



5.7.1 Current Land Status

Pinedale Chapter is located in the eastern portion of the Navajo Nation in the State of New Mexico. Many of the local chapters within New Mexico face land ownership a majority of time due to its checkerboard status. Lands within Pinedale consist of Navajo Tribal Trust Land, Bureau of Land Management, and State of New Mexico, Individual Indian Land Allotment owners, private land and fee land.

See map in next page on current land status for Pinedale Chapter. The map provides insight in the difficult position Pinedale Chapter faces in future land use planning and development. One of the Committee's goal is to acquire non-Navajo Tribal Trust Lands for Pinedale to ease future planning of land development.



Pinedale Chapter Current Land Status



Legend

Road Classification

- Rural Minor Arterial
- Rural Major Collector
- Rural Local Road
- - - Proposed Rural Road

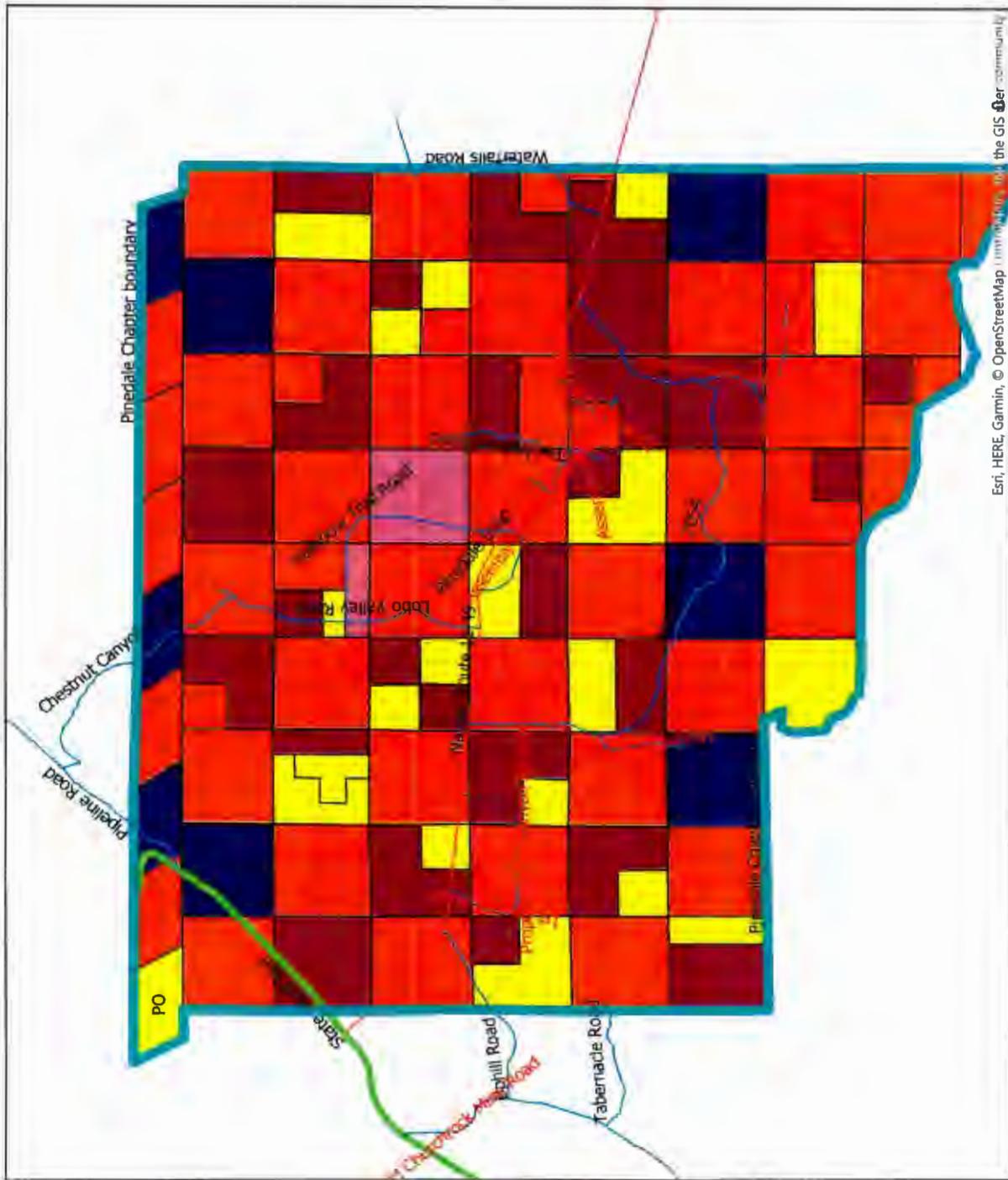
Pinedale Chapter Boundary

- Chapter boundary

Pinedale Land Status

Land Status

- Navajo Tribal Trust Land
- Indian Allotment
- State Land
- Other Land status
- Private land



Esri, HERE, Garmin, © OpenStreetMap contributors, and the GIS User community

6 Miles

5.8 NEW MEXICO SPECIAL STATUS SPECIES – ESA LISTED (TYPE 1) – AUGUST 2016

Northwest New Mexico habitat (Pinedale, NM included)

AMPHIBIANS			
<i>Pseudis neomexicana</i>	Jemez Mountain Salamander	E + CH	Peripheral
BIRDS			
<i>Coccyzus americanus occidentalis</i>	Western yellow-billed cuckoo (Western DPS)	T + CH	Verified
<i>Empidonax traillii extimus</i>	Southwestern willow flycatcher	E + CH	Verified
<i>Strix occidentalis lucida</i>	Mexican spotted owl	T + CH	Peripheral
<i>Sterna antillarum</i>	Least tern (interior population)	E	Verified
FISH			
<i>Xyrauchen taxanus</i>	Razorback sucker	E + CH	Hypothetical
<i>Catostomus discobolus yarrow</i>	Zuni bluehead sucker	E + CH	Peripheral
<i>Ptychocheilus Lucius</i>	Colorado Pikeminnow	E + CH	Hypothetical
	T = Threaten		
	E = Endangered		
	CH – Critical Habitat		
	P = Proposed		
	ENE = Experimental, Non-essential		

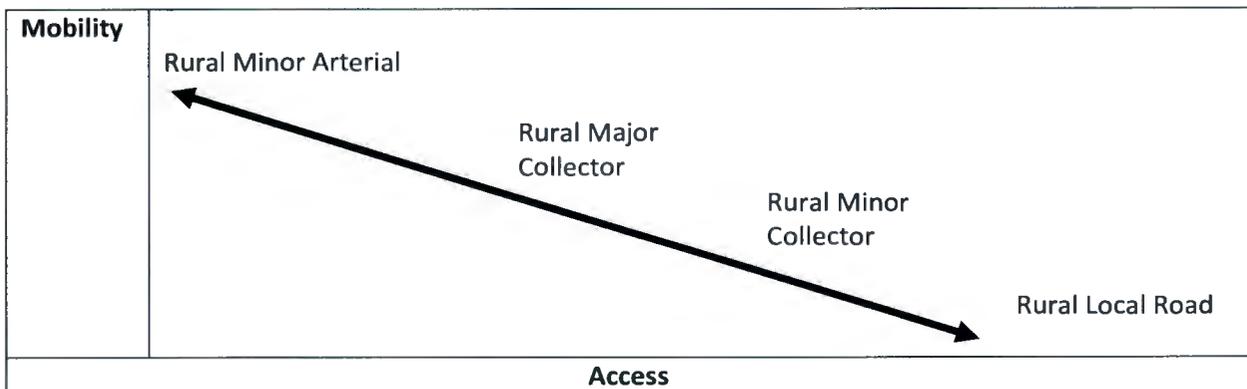


6 THOROUGHFARE PLAN

The Pinedale Chapter Thoroughfare Plan will be used to develop current and future roads for the community. This current plan will adopt the Federal Highway Administration and Bureau of Indian Affairs Division of Transportation standards.

6.1 THOROUGHFARE MAP

The Thoroughfare Map categorizes and identifies new and proposed roads in terms of a combination of three considerations: 1) the functional characteristics that they are intended to provide. 2) The dominant adjacent land use, and 3) the development character of the areas they pass through



The functional classification of this Thoroughfare Plan includes: Rural Minor Arterial, Rural Major Collector, Rural Minor Collector and Rural Local Road depending on access vs. mobility access.

However, the use of the functions, (access and mobility) as the only element that distinguishes one road from another disregards the broader aspect that roads also affect and are affected by the use of adjacent properties.

Therefore, this Thoroughfare Plan provides additional considerations that relate the road design criteria with the development characteristics and predominate land uses of the areas being served.

Thus, the Pinedale Chapter Thoroughfare Plan categorizes roadways by traditional functional classifications. It further distinguishes according to their character (community and rural area) and their prominent land use characteristics (residential, commercial, or industrial).

A sample **Design Elements Matrix** is included in the Appendix as a representation of these concepts included in the plan. The matrix is a sample of road specification; every transportation entity has a set plan in place. CLUPC will work with the Navajo Nation Division of Transportation to establish set policies for Pinedale roads.

6.1.1 Interpretation of new road connections

The Thoroughfare Plan map shows some recommended road connections to be made at undefined point in the future. Additionally the chapter submits its annual New Mexico ICIP and Navajo Nation ICIP both in appendix, which also includes road projects. In no instance shall the Thoroughfare Plan Map be



Thoroughfare Map



interpreted as showing exact alignments for new roads; they are instead intended to represent conceptual connections from one location to another.

The new proposed roads are recommended base on future needs, traffic demand, development, and financial feasibility. This plan should not be used as a legal binding document of set plans to build road, but as a supporting documentation for future development of residential, commercial, and industrial.

Further, in no way should any future connection shown on the Thoroughfare Plan Map be interpreted as establishing an easement of right-of-way for that connection or in any way claiming property for public use.

6.2 CONSIDERATION #1 FUNCTIONAL, CLASSIFICATIONS

The classification system of the Pinedale Thoroughfare Plan includes: Rural Minor Arterial, Rural Major Collector, Rural Minor Collector and Rural Local Road depending on access vs. mobility. These functional classification definitions are adopted from the Federal Highway Administration.

6.2.1 Rural Minor Arterial

In rural settings, Minor Arterials should be identified and spaced at intervals consistent with population density, so that all developed areas are within a reasonable distance of a high level Arterial. Additionally, Minor Arterials in rural areas are typically designed to provide relatively high overall travel speeds, with minimum interference to through movement. Normally, the speed should not exceed 1 mile in fully developed areas.

Rural Characteristics for Minor Arterial
<ul style="list-style-type: none">• Link cities and larger towns (and other major destinations such as resorts capable of attracting travel over long distances) and form an integrated network providing interstate and inter-county service• Be spaced at intervals, consistent with population density, so that all developed areas within the State are within a reasonable distances of an Arterial roadway• Provide service to corridors with trip lengths and travel density greater than those served by Rural Collectors and Local Roads and with relatively high travel speeds and minimum interference to through movement

6.2.2 Rural Major Collector

Collectors serve a critical role in the roadway network by gathering traffic from Local Roads and funneling them to the Arterial network. Within the context of functional classification, Collectors are broken down into two categories: Major Collectors and Minor Collectors. Until recently, this division was considered only in the rural environment. Currently, all Collectors, regardless of whether they are within a rural area or an urban area, may be sub-stratified into *major* and *minor* categories. The determination of whether a given Collector is a Major or a Minor Collector is frequently one of the biggest challenges in functionally classifying a roadway network.



In the rural environment, Collectors generally serve primarily intra-county travel (rather than statewide) and constitute those routes on which (independent of traffic volume) predominant travel distances are shorter than on Arterial routes. Consequently, more moderate speeds may be posted.

The distinctions between Major Collectors and Minor Collectors are often subtle. Generally, Major Collector routes are longer in length; have lower connecting driveway densities; have higher speed limits; are spaced at greater intervals; have higher annual average traffic volumes; and may have more travel lanes than their Minor Collector counterparts. Careful consideration should be given to these factors when assigning a Major or Minor Collector designation. In rural areas, AADT and spacing may be the most significant designation factors. Since Major Collectors offer more mobility and Minor Collectors offer more access, it is beneficial to reexamine these two fundamental concepts of functional classification. Overall, the total mileage of Major Collectors is typically lower than the total mileage of Minor Collectors, while the total Collector mileage is typically one-third of the Local roadway network

Rural Characteristics for Major Collector
<ul style="list-style-type: none">• Provide service to any county seat not on an Arterial route, to the larger towns not directly served by the higher systems and to other traffic generators of equivalent intra-county importance such as consolidated schools, shipping points, county parks and important mining and agricultural areas• Link these places with nearby larger towns and cities or with Arterial routes• Serve the most important intra-county travel corridors

6.2.3 Local Road

Locally classified roads account for the largest percentage of all roadways in terms of mileage. They are not intended for use in long distance travel, except at the origin or destination end of the trip, due to their provision of direct access to abutting land. Bus routes generally do not run on Local Roads. They are often designed to discourage through traffic. As public roads, they should be accessible for public use throughout the year.

Local Roads are often classified by default. In other words, once all Arterial and Collector roadways have been identified, all remaining roadways are classified as Local Roads

Rural Characteristics for Local Road
<ul style="list-style-type: none">• Serve primarily to provide access to adjacent land• Provide service to travel over short distances as compared to higher classification categories• Constitute the mileage not classified as part of the Arterial and Collector systems



6.3 LIST OF ROADS

6.3.1 Rural Minor Arterial Road

NM Hwy 566 – Maintained by NM Department of Transportation

6.3.2 Rural Major Collector Road

Navajo Route 11-49 – Maintained by NN Division of Transportation

6.3.3 Rural Local Road

Old Churchrock Mine Road – Maintained by McKinley County

Uphill Road – Maintained by BIA and/or McKinley County

Tabernacle Road – Maintained by Pinedale Chapter (limited access road)

1st Canyon Road – Maintained by Pinedale Chapter (limited access road)

Navajo Route 7054 – Maintained by NN Division of Transportation and/or Pinedale Chapter

Midget Mesa Road – Maintained by Pinedale Chapter (limited access road)

Fallen Maple Road – Maintained by Pinedale Chapter (limited access road)

Sunnyside Ranch Road – Maintained by Pinedale Chapter (limited access road)

Waterfalls Road – Maintained by Pinedale Chapter (limited access road)

Timber Ridge Drive – Maintained by Pinedale Chapter (limited access road)

Tse Nizhoni Road – Maintained by Pinedale Chapter (limited access road)

Assembly Valley Road – Maintained by Pinedale Chapter (limited access road)

Rainbow Trail Road – Maintained by McKinley County

Lobo Valley Road – Maintained by McKinley County

Pinedale Loop – Maintained by Pinedale Chapter

Chestnut Canyon Road – No maintenance (limited access road)

6.3.4 Limited Access road

Roads that are listed “limited access road” means there is no public access to additional roads or connected to other public roads. These roads merely access homes and certain public lands. These roads do not provide immediate access to other roads throughout community or other communities.



7 COMMUNITY FACILITIES PLAN

There is currently a limit and future limit in prospects for current and future facilities within the Pinedale community.

7.1 NAVAJO NATION GOVERNMENT FACILITIES

7.1.1 Current facilities

7.1.1.1 Pinedale Chapter House

The Pinedale Chapter was dedicated on April 18, 1960. Since then there has been countless improvements on the facility including: office space, public restroom facilities and HVAC installations. Total capacity: 200

The meeting room can host up to 200 people and according to the current administration, always open for the community people for use.

7.1.1.2 Pinedale Senior Center

The Pinedale Senior Center building was constructed and dedicated in 2000. Prior to moving to a permanent facility, the Senior Center was located in the Chapter house. Total capacity: 70

7.1.1.3 Pinedale Head Start

The new Pinedale Head Start building was dedicated on January 16, 2008 providing two classroom, a dining room, kitchen and public restroom facilities. Total capacity: 50

The old head start building is located next to the Pinedale Chapter on the eastside. It has been used over 30 years and is currently vacant.

7.1.2 Future facilities

7.1.2.1 Pinedale Veteran & Administration Building

The Chapter is currently in the planning stage of constructing a 3000 S.F. Veterans and Administration building. The building will house the Chapter administration office, a veteran office, large conference room, two small conference room and additional office space for other resources to meet community needs.

Recently, the 23rd Navajo Nation Council and President of the Navajo Nation approved nearly \$100 million dollars in project finances, Pinedale Chapter will be receiving about \$694,000 for construction cost; additionally the State of New Mexico has allocated \$75,000 for pre-planning and \$96,000 from the Navajo Nation CIP fund with Pinedale Chapter matching up to \$25,000. Totaling \$890,000.



Figure 16 Construction of the new Chapter house circa 1960 (Photo: Gallup Independent 4/20/1960)



Figure 17 Dedication of the new Pinedale Head Start building. Standing with two Pre-school students are: L-R Anslam Morgan, Speaker Morgan, President Martin, Young Jeff Tom, Charles Long, Bob Sandaval and Olsen Arvisa. (Photo: Navajo-Hopi Observer)



7.2 PUBLIC UTILITIES

7.2.1 Electric

7.2.1.1 *Current facilities*

7.2.1.1.1 [Continental Divide Electric Co-op](#)

Current electric facilities are provided by Continental Divide Electric Co-op. Powerline transmission run through-out community with concurrent Right-Of-Way with the Bureau of Indian Affairs.

7.2.1.1.2 [PNM](#)

PNM has an 115kV transmission line that runs through the heart of Pinedale. The transmission line had been built in the late 1960's and early 1970's. The main transformer is located in Yatahey, NM and the 115 kV line runs towards Ambrosia, NM and connects to additional lines and transformers.

Since 2016 PNM has been in the planning stage to add a 2nd transformer at the Yatahey site due to mitigate overloads and improve voltage performance according to a 2015 Open Transmission Planning meeting PowerPoint presentation.

7.2.1.2 *Future facilities*

There are no current or future projects for electric utilities within Pinedale Chapter.

7.2.2 Water

7.2.2.1 *Current facilities*

7.2.2.1.1 [NTUA \(Navajo Tribal Utility Authority\)](#)

NTUA provides water services to Pinedale community. Water service comes from wells located in Mariano Lake, NM.

7.2.2.2 *Future facilities*

7.2.2.2.1 [Navajo-Gallup Water Supply Project](#)

Excerpt from website:

“The Navajo-Gallup Water Supply Project is a major infrastructure project that once constructed, will convey a reliable municipal and industrial water supply from the San Juan River to the eastern section of the Navajo Nation, southwestern portion of the Jicarilla Apache Nation, and the city of Gallup, New Mexico via about 280 miles of pipeline, several pumping plants, and two water treatment plants.

These areas currently rely on a rapidly depleting groundwater supply that is of poor quality and inadequate to meet the current and future demands of more than 43 Navajo chapters, the city of Gallup, and the Teepee Junction area of the Jicarilla Apache Nation. Ground water levels for the city of Gallup have dropped approximately 200 feet over the past 10 years and over 40 percent of Navajo Nation households rely on hauling water to meet their daily needs. Inadequate water supply also impacts the ability of the Jicarilla Apache people to live and work outside the reservation town of Dulce.



The Navajo-Gallup Water Supply Project is designed to provide a long-term sustainable water supply to meet the future population needs of approximately 250,000 people in these communities by the year 2040 through the annual delivery of 37,764 acre-feet of water from the San Juan Basin. The project's eastern branch will divert approximately 4,645 acre-feet of water annually with no return flow to the San Juan River. The project's western branch will divert the remaining 33,119 acre-feet of water with an anticipated average annual return flow of 1,871 acre-feet.

The Omnibus Public Land Management Act of 2009, Title X Part III (Public Law 111-11) signed on March 30, 2009, provided the authorization to construct this important project as a major component of the Navajo Nation San Juan River Basin Water Rights Settlement in New Mexico. The act requires that all project features are completed no later than December 31, 2024.

On October 11, the Obama Administration announced the selection of 14 infrastructure projects to be expedited through the permitting and environmental review process including the Navajo-Gallup Water Supply Project

7.3 RURAL ADDRESSING

The Pinedale Chapter currently works closely with McKinley County GISC office in providing current up to date rural address plans. Since 1998 Pinedale Chapter has been a part of McKinley County GISC plans with rural addressing and E-911 initiatives.

Pinedale Chapter and Community Land Use Planning Committee are working closely with McKinley County to update road signs and home markers to ensure public safety and emergency response is available for all response calls.

Pinedale Chapter recently was provided a ArcGIS Pro software from Department of Interior and Bureau of Indian Affairs. Current plans will be to create comprehensive mapping and GIS plans utilizing data provided by Tech team and CLUPC.

7.4 NM INFRASTRUCTURE CAPITAL IMPROVEMENT PLAN 2020-2024

The Pinedale Chapter adopted the NM Infrastructure Capital Improvement Plan for FY 2020-2024 during its August 2018 regular chapter meeting. The following projects are listed and their ranking of priority are also provided:

1. Pinedale Administration & Veterans Building
2. N7054
3. New Bathroom Additions
4. Bathroom Addition renovations
5. Communication Tower
6. New Solid Waste Transfer Station
7. Rainbow Trail Road Improvements
8. Old Churchrock Mine Road Crossing
9. Waterfall Road Improvement
10. 1st Canyon Road Improvement
11. Regional Water System SCADA



8 LAND USE PLANNING

The Pinedale Community Land Use Planning Committee have recommended the following land use plan for the next five years. These recommended locations were carefully reviewed and will benefit the people and economic growth for the next generation.



8.1 BELOW THE PINES HOUSING DEVELOPMENT
Housing Site #1 – 3 acres (1/2 southeast of Pinedale Chapter – Pinedale Loop)

Geology/Soil

The current elevation of this site location is 6400 ft. above sea level

Soil type:



Figure 18 Soil report for land. Source: USGS Soil report

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
242	Gish-Mentmore complex, 1 to 8 percent slopes	12.5	63.7%
315	Flugle-Fragua complex, 1 to 10 percent slopes	3.1	15.7%
338	Zyme-Lockerby association, 5 to 35 percent slopes	4.0	20.6%
Total of Area of Interest		19.5	100.0%

Surface/water drainage: There is a major drainage running through the site. However the small arroyo does not have wetland or eco system.

Vegetation: Small patches of grassland can be found in certain areas, some native plants also exist within the area.

Wildlife: According to recent survey of the area there are prairie dog, snakes, lizards and small insect in the area.



Figure 19 Below the Pines Housing development location, Pinedale Loop about ½ SE of Pinedale Chapter House.

Environmental Sensitive area: There are

Cultural Significant Area/Traditional Significant Area: After taking survey there are no

Recommendation

This housing development will be located near the old artesian well within Executive Order Land. This land is currently available for land use by the Pinedale Chapter and its organization. Total acreage of land development 3.18 acres of land.

Utility information: Continental Divide Electric Co-Op, NTUA, Frontier



8.2 BELOW THE PINES MOBILE HOME PARK
MHP Site #1 – 3 acres (1/2 southeast of Pinedale Chapter – Pinedale Loop)

Geology/Soil

The current elevation of this site location is 6400 ft. above sea level

Soil type:

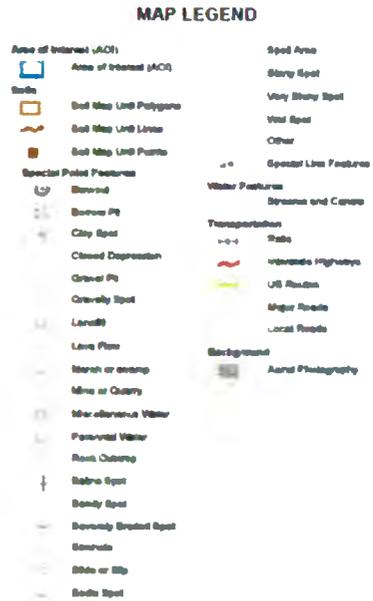


Figure 20 Soil report for land. Source: USGS Soil report

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
242	Gish-Mentmore complex, 1 to 8 percent slopes	0.9	12.9%
315	Flugle-Fragua complex, 1 to 10 percent slopes	6.0	85.5%
338	Zyme-Lockerby association, 5 to 35 percent slopes	0.1	1.2%
404	Rock outcrop-Techado-Stozuni complex, 5 to 60 percent slopes	0.0	0.4%
Total of Area of Interest		7.0	100.0%

Surface/water drainage: There is a major drainage running through the site. However the small arroyo does not have wetland or eco system.

Figure 21 Below the Pines Housing development location, Pinedale Loop about 1/2 SE of Pinedale Chapter House.



Vegetation: Small patches of grassland can be found in certain areas, some native plants also exist within the area.

Wildlife: According to recent survey of the area there are prairie dog, snakes, lizards and small insect in the area.

Environmental Sensitive area: There are

Cultural Significant Area/Traditional Significant Area: After taking survey there are no

Recommendation

The potential to build a mobile home park near the old artesian well within Executive Order Land will have some issues related to historic building, old artesian well and old store foundation. There is also an earthen dam located just due south of the proposed area.

Utility information: Continental Divide Electric Co-Op, NTUA, Frontier



Figure 22 Old Artesian well, possible location for Mobile Home Park



8.3 PINE TREE COMMUNITY CEMETERY

Cemetery Site #1 – 10.8 acres (1/2 south of Pinedale Chapter – Pinedale Loop)

Geology/Soil

The current elevation of this site location is 6375 ft. above sea level

Soil type:



Figure 23 Below the Pines Housing development location, Pinedale Loop about 1/2 SE of Pinedale Chapter House.



Figure 24 Soil report for land. Source: USGS Soil report

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
242	Gish-Mentmore complex, 1 to 8 percent slopes	3.0	28.1%
315	Flugle-Fragua complex, 1 to 10 percent slopes	4.3	40.3%
338	Zyme-Lockerby association, 5 to 35 percent slopes	3.4	31.6%
Total of Area of Interest		10.8	100.0%

Surface/water drainage: There is a major drainage running through the site. However the small arroyo does not have wetland or eco system. Earthen dam located just south of proposed development



Vegetation: Small patches of grassland can be found in certain areas, some native plants also exist within the area.

Wildlife: According to recent survey of the area there are prairie dog, snakes, lizards and small insect in the area.

Environmental Sensitive area: There are

Cultural Significant Area/Traditional Significant Area: After taking survey there are no

Recommendation

The potential development of a community cemetery at this location is feasible. Immediate access road is Pinedale Loop and Navajo Route 11-49. Total amount of acres could accommodate for future expansion for veteran and public use for cemetery land.

Utility information: Continental Divide Electric Co-Op, NTUA, Frontier



Figure 25 South of old artesian well, proposed community cemetery.



8.4 EDUCATIONAL COMPLEX

Educational site #1 – 10.8 acres (1/4 south of Pinedale Chapter – Pinedale Loop & N11-49)

Geology/Soil

The current elevation of this site location is 6400 ft. above sea level

Soil type:



Figure 26 Soil report for land. Source: USGS Soil report

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
230	Sparank-San Mateo-Zia Complex, 0 to 3 percent slopes	0.0	0.1%
242	Gish-Mentmore complex, 1 to 8 percent slopes	7.8	38.0%
338	Zyme-Lockerby association, 5 to 35 percent slopes	12.7	61.9%
Total of Area of Interest		10.8	100.0%

Surface/water drainage: There is a minor drainage running through the south end of the site. However the small arroyo does not have wetland or eco system. Earthen dam located just south of proposed development

Vegetation: Small patches of grassland can be found in certain areas, some native plants also exist within the area.

Wildlife: According to recent survey of the area there are prairie dog, snakes, lizards and small insect in the area.

Environmental Sensitive area: There are

Cultural Significant Area/Traditional Significant Area: After taking survey there are no findings at present time.

Recommendation

The potential development of a future education complex site okay. The location is steep up about 10 ft. above Pinedale Loop, future level of land to accommodate both Navajo Route 11-49 and Pinedale Loop.

Utility information: Continental Divide Electric Co-Op, NTUA, Frontier



Figure 28 looking north toward Pinedale Chapter, proposed site for educational complex



8.5 PUBLIC SAFETY COMPLEX

Public Safety site #1 – 11.3 acres (1/4 southeast of Pinedale Chapter – Pinedale Loop & N11-49)

Geology/Soil

The current elevation of this site location is 6100 ft. above sea level

Soil type:



Figure 30 Public Safety complex, Pinedale Loop about ¼ SE of Pinedale Chapter House.



Figure 29 Soil report for land. Source: USGS Soil report

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
242	Gish-Mentmore complex, 1 to 8 percent slopes	11.0	97.8%
338	Zyme-Lockerby association, 5 to 35 percent slopes	0.20	2.2%
Total of Area of Interest		11.3	100.0%

Surface/water drainage: There is a minor drainage running through the south end of the site. However the small arroyo does not have wetland or eco system. Earthen dam located just south of proposed development

Vegetation: Small patches of grassland can be found in certain areas, some native plants also exist within the area.

Wildlife: According to recent survey of the area there are prairie dog, snakes, lizards and small insect in the area.



Environmental Sensitive area: There are no significant findings for sensitive area.

Cultural Significant Area/Traditional Significant Area: After taking survey there are no findings at present time.

Recommendation

The potential development of a future public complex site is okay. The location is located in prime location and easy access for public safety response time.

Utility information: Continental Divide Electric Co-Op, NTUA, Frontier



Figure 31 looking east of Pinedale Loop, propose site for Public Safety complex



8.6 FOUTZ LAND

Total land size: 660 acres

Current Land owner: Foutz family

Community Land Use Planning Committee members have made planning priorities for future land acquisition at Township 16 Range 15 west Section 20 also known as “Foutz land”. The current status of this land is listed as private. Pinedale Chapter continues to work with the Navajo Nation and the current landowners in transferring the land to Navajo Tribal Trust land.



Figure 32 Northeast corner of Foutz land, potential site for community cemetery plot

There have been numerous findings in the potential purchase of the land. One of the major finding was illegal trash dump. Local residents have been known to dump their trash within the land and its arroyo. Over the years the area has been contaminated with illegal trash dump site. The dump site is located within the Puerco arroyo and near an access road.

Potential land development of these lands include:

- Wastewater treatment plant utilizing green energy
- Water tank
- Waste disposal site & program
- Housing development
- Mobile home park
- Community cemetery
- Commercial development





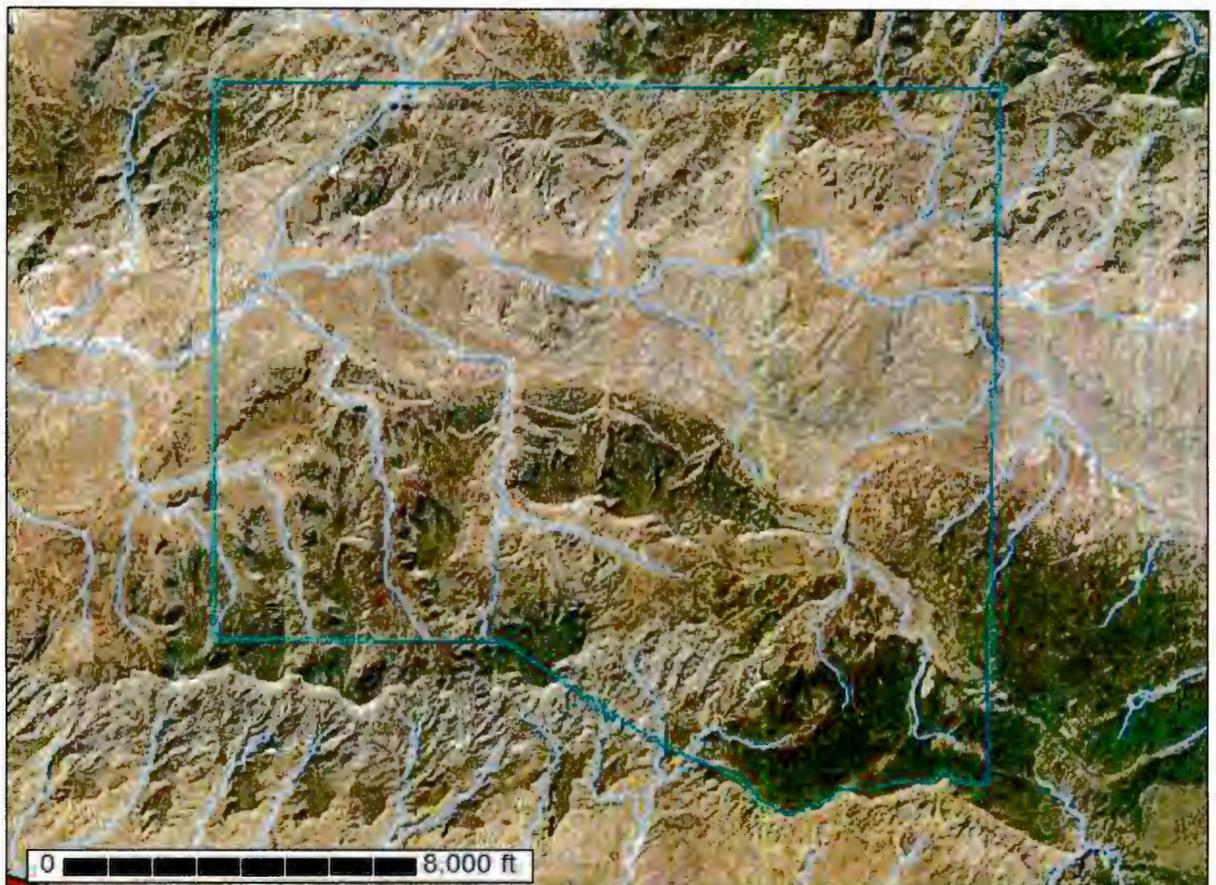
United States
Department of
Agriculture

NRCS

Natural
Resources
Conservation
Service

A product of the National
Cooperative Soil Survey,
a joint effort of the United
States Department of
Agriculture and other
Federal agencies, State
agencies including the
Agricultural Experiment
Stations, and local
participants

Custom Soil Resource Report for McKinley County Area, New Mexico, McKinley County and Parts of Cibola and San Juan Counties



May 7, 2018

Preface

Soil surveys contain information that affects land use planning in survey areas. They highlight soil limitations that affect various land uses and provide information about the properties of the soils in the survey areas. Soil surveys are designed for many different users, including farmers, ranchers, foresters, agronomists, urban planners, community officials, engineers, developers, builders, and home buyers. Also, conservationists, teachers, students, and specialists in recreation, waste disposal, and pollution control can use the surveys to help them understand, protect, or enhance the environment.

Various land use regulations of Federal, State, and local governments may impose special restrictions on land use or land treatment. Soil surveys identify soil properties that are used in making various land use or land treatment decisions. The information is intended to help the land users identify and reduce the effects of soil limitations on various land uses. The landowner or user is responsible for identifying and complying with existing laws and regulations.

Although soil survey information can be used for general farm, local, and wider area planning, onsite investigation is needed to supplement this information in some cases. Examples include soil quality assessments (<http://www.nrcs.usda.gov/wps/portal/nrcs/main/soils/health/>) and certain conservation and engineering applications. For more detailed information, contact your local USDA Service Center (<https://offices.sc.egov.usda.gov/locator/app?agency=nrcs>) or your NRCS State Soil Scientist (http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/contactus/?cid=nrcs142p2_053951).

Great differences in soil properties can occur within short distances. Some soils are seasonally wet or subject to flooding. Some are too unstable to be used as a foundation for buildings or roads. Clayey or wet soils are poorly suited to use as septic tank absorption fields. A high water table makes a soil poorly suited to basements or underground installations.

The National Cooperative Soil Survey is a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local agencies. The Natural Resources Conservation Service (NRCS) has leadership for the Federal part of the National Cooperative Soil Survey.

Information about soils is updated periodically. Updated information is available through the NRCS Web Soil Survey, the site for official soil survey information.

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How Soil Surveys Are Made

Soil surveys are made to provide information about the soils and miscellaneous areas in a specific area. They include a description of the soils and miscellaneous areas and their location on the landscape and tables that show soil properties and limitations affecting various uses. Soil scientists observed the steepness, length, and shape of the slopes; the general pattern of drainage; the kinds of crops and native plants; and the kinds of bedrock. They observed and described many soil profiles. A soil profile is the sequence of natural layers, or horizons, in a soil. The profile extends from the surface down into the unconsolidated material in which the soil formed or from the surface down to bedrock. The unconsolidated material is devoid of roots and other living organisms and has not been changed by other biological activity.

Currently, soils are mapped according to the boundaries of major land resource areas (MLRAs). MLRAs are geographically associated land resource units that share common characteristics related to physiography, geology, climate, water resources, soils, biological resources, and land uses (USDA, 2006). Soil survey areas typically consist of parts of one or more MLRA.

The soils and miscellaneous areas in a survey area occur in an orderly pattern that is related to the geology, landforms, relief, climate, and natural vegetation of the area. Each kind of soil and miscellaneous area is associated with a particular kind of landform or with a segment of the landform. By observing the soils and miscellaneous areas in the survey area and relating their position to specific segments of the landform, a soil scientist develops a concept, or model, of how they were formed. Thus, during mapping, this model enables the soil scientist to predict with a considerable degree of accuracy the kind of soil or miscellaneous area at a specific location on the landscape.

Commonly, individual soils on the landscape merge into one another as their characteristics gradually change. To construct an accurate soil map, however, soil scientists must determine the boundaries between the soils. They can observe only a limited number of soil profiles. Nevertheless, these observations, supplemented by an understanding of the soil-vegetation-landscape relationship, are sufficient to verify predictions of the kinds of soil in an area and to determine the boundaries.

Soil scientists recorded the characteristics of the soil profiles that they studied. They noted soil color, texture, size and shape of soil aggregates, kind and amount of rock fragments, distribution of plant roots, reaction, and other features that enable them to identify soils. After describing the soils in the survey area and determining their properties, the soil scientists assigned the soils to taxonomic classes (units). Taxonomic classes are concepts. Each taxonomic class has a set of soil characteristics with precisely defined limits. The classes are used as a basis for comparison to classify soils systematically. Soil taxonomy, the system of taxonomic classification used in the United States, is based mainly on the kind and character of soil properties and the arrangement of horizons within the profile. After the soil

Custom Soil Resource Report

scientists classified and named the soils in the survey area, they compared the individual soils with similar soils in the same taxonomic class in other areas so that they could confirm data and assemble additional data based on experience and research.

The objective of soil mapping is not to delineate pure map unit components; the objective is to separate the landscape into landforms or landform segments that have similar use and management requirements. Each map unit is defined by a unique combination of soil components and/or miscellaneous areas in predictable proportions. Some components may be highly contrasting to the other components of the map unit. The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The delineation of such landforms and landform segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, onsite investigation is needed to define and locate the soils and miscellaneous areas.

Soil scientists make many field observations in the process of producing a soil map. The frequency of observation is dependent upon several factors, including scale of mapping, intensity of mapping, design of map units, complexity of the landscape, and experience of the soil scientist. Observations are made to test and refine the soil-landscape model and predictions and to verify the classification of the soils at specific locations. Once the soil-landscape model is refined, a significantly smaller number of measurements of individual soil properties are made and recorded. These measurements may include field measurements, such as those for color, depth to bedrock, and texture, and laboratory measurements, such as those for content of sand, silt, clay, salt, and other components. Properties of each soil typically vary from one point to another across the landscape.

Observations for map unit components are aggregated to develop ranges of characteristics for the components. The aggregated values are presented. Direct measurements do not exist for every property presented for every map unit component. Values for some properties are estimated from combinations of other properties.

While a soil survey is in progress, samples of some of the soils in the area generally are collected for laboratory analyses and for engineering tests. Soil scientists interpret the data from these analyses and tests as well as the field-observed characteristics and the soil properties to determine the expected behavior of the soils under different uses. Interpretations for all of the soils are field tested through observation of the soils in different uses and under different levels of management. Some interpretations are modified to fit local conditions, and some new interpretations are developed to meet local needs. Data are assembled from other sources, such as research information, production records, and field experience of specialists. For example, data on crop yields under defined levels of management are assembled from farm records and from field or plot experiments on the same kinds of soil.

Predictions about soil behavior are based not only on soil properties but also on such variables as climate and biological activity. Soil conditions are predictable over long periods of time, but they are not predictable from year to year. For example, soil scientists can predict with a fairly high degree of accuracy that a given soil will have a high water table within certain depths in most years, but they cannot predict that a high water table will always be at a specific level in the soil on a specific date.

After soil scientists located and identified the significant natural bodies of soil in the survey area, they drew the boundaries of these bodies on aerial photographs and

RESOLUTION OF THE
RESOURCES AND DEVELOPMENT COMMITTEE
OF THE 23RD NAVAJO NATION COUNCIL --- FIRST YEAR, 2015

AN ACTION

RELATING TO RESOURCES AND DEVELOPMENT; DELEGATING AUTHORITY TO THE DIRECTOR OF THE NAVAJO LAND DEPARTMENT TO APPROVE LAND WITHDRAWALS ON THE NAVAJO NATION; AND APPROVING THE ADMINISTRATIVE RULES AND REGULATIONS FOR LAND WITHDRAWALS

BE IT ENACTED:

Section One. Findings

- A. Pursuant to 2 N.N.C. §502(B)(2), the Resources and Development Committee is authorized to give final approval of all land withdrawals; and
- B. Pursuant to 2 N.N.C. §501(B)(3), the Resources and Development Committee is authorized to delegate its powers to appropriate divisions of the Navajo Nation for efficiency and streamlining of government processes provided the Committee first grants final approval of rules and regulations governing such delegations and rescission of such delegations; and
- C. The current system of processing land withdrawals is confusing, time consuming, and inconsistent. It has resulted in delay and loss of development on the Navajo Nation; and
- D. Therefore, there is a need to delegate the authority to approve land withdrawals to the Director of the Navajo Land Department to streamline the land withdrawal process; and
- E. The process of reviewing documents associated with land withdrawals is an administrative task that can be performed by the Director of the Navajo Land Department; and
- F. The Resources and Development Committee finds it is in the best interest of the Navajo Nation to approve the delegation of authority.

Section Two. Delegation to the Director of the Navajo Land Department to Process Land Withdrawals and Approval of the Administrative Rules and Regulations for Land Withdrawals

- A. The Resources Committee of the Navajo Nation Council hereby approves the delegation of authority to the director of the Navajo Land Department, Division of Natural Resources, to approve Land Withdrawals on the Navajo Nation.
- B. The Navajo Nation hereby approves the Administrative Rules and Regulations, attached hereto as Exhibit "A".

CERTIFICATION

I, hereby, certify that the foregoing resolution was duly considered by the Resources and Development Committee of the 23rd Navajo Nation Council at a duly called meeting at Navajo Nation Council Chambers, Window Rock, Navajo Nation (Arizona), at which quorum was present and that same was passed by a vote of 3 in favor, 0 opposed, 0 abstain this 16th day of June, 2015.



Benjamin Bennett, Vice-Chairperson
Resources and Development Committee

Motion: Honorable Benjamin Bennett
Second: Honorable Davis Filfred
Vote : 3-0 (Vice Chair not voting)



LAND WITHDRAWAL DESIGNATION REGULATIONS

§ 1. Purpose.

The purpose of these Regulations is to clarify and expedite the Land Withdrawal Designation process on the Navajo Nation, and explains that a Land Withdrawal Designation does not authorize development or disturbance on Navajo Nation land. This Land Withdrawal Designation process does not apply to how to get a lease. Prior to any development on the land, a lease must be obtained in addition to the withdrawal. The purpose of a Land Withdrawal Designation is to designate an area of land for future development by,

- a. Ensuring that the rights of grazing permittees, who are in compliance with their grazing permits, are properly addressed as applicable and as required under 16 N.N.C. §§ 1401 *et seq.* and to prevent any subsequent claims to the land; and
- b. Ensuring that the affected Chapter supports the Land Withdrawal Designation and use of the land.

§ 2. Scope.

These regulations apply to all Land Withdrawal Designations on the Navajo Nation.

§ 3. Delegation

- a. The Resources and Development Committee hereby delegates to the Director of the Navajo Land Department the power and authority to give final approval of all Land Withdrawal Designations on the Navajo Nation. The Director may sub-delegate this authority to a person under the Director's supervision, but this delegation of authority shall not be re-delegated to any other Department or Division within the Nation without the consent and approval of the Resources and Development Committee of the Navajo Nation Council.
- b. Resources and Development Committee hereby delegates authority to the Navajo Land Department to administer and manage Land Withdrawal Designations on the Navajo Nation, with the express power to adopt rules to further implement these regulations.

§ 4. Definitions.

- a. **Community Development:** Community Development encompasses infrastructure, economic development projects, installation of public facilities, community centers, housing, public services, businesses, schools, hospitals, government offices, and other similar projects.
- b. **Designation Holder:** Any person or entity who has obtained a Land Withdrawal Designation.
- c. **Industrial Development:** Economic activity concerned with the manufacture, and processing of materials or construction.
- d. **Land Withdrawal Designation:** A formal action used to designate and reserve a parcel of land for:
 - i. Community Development
 - ii. Industrial Development
- e. **The Navajo Nation Business Site Leasing Regulations of 2005 (Business Site Leasing Regulations):** Navajo Nation regulations that make business site leases mandatory for all businesses operating on the Navajo Nation.
- f. **The Navajo Nation General Leasing Regulations of 2013 (General Leasing Regulations):** Navajo Nation regulations that apply to all leases and permits for the use or possession of Navajo Nation trust land, with the exception of business and mineral leases.
- g. **The Navajo Nation Government:** The Navajo Nation Government is comprised of the legislative, executive, and judicial branches, as well as political subdivisions. For the purpose of land use, ownership, and these regulations, enterprises, businesses, housing authorities, or other entities created or owned by the Navajo Nation are not entities of the Navajo Nation Government.
- h. **The Navajo Nation Trust Land Leasing Act of 2000 (Navajo Leasing Act, 25 U.S.C. §415(e)):** A federal law that regulates the leasing of Navajo Nation lands. It allows the Nation to lease certain lands without Secretarial approval.
- X**i. **Resolution of Support:** A Resolution of Support is a resolution passed by an affected Chapter stating that they are in support of a particular entity or business locating within their chapter on withdrawn land.

§ 5. Use and Occupation of Navajo Nation Land.

A Land Withdrawal Designation does not authorize an entity outside the Navajo Nation Government to use, occupy, or disturb Navajo Nation land. The Navajo Leasing Act, Business Site Leasing Regulations, and General Leasing Regulations apply to all land use on the Navajo Nation. A lease is always required if the land is being developed by any entity outside the Navajo Nation Government.

§ 6. Land Withdrawal Designations for Navajo Nation Government.

The Navajo Leasing Act, Business Site Leasing Regulations, and General Leasing Regulations do not apply to the Navajo Nation Government. The Navajo Nation Government may develop on land designated by a Land Withdrawal Designation without a lease for government purposes only.

§ 7. Procedure to Acquire a Land Withdrawal.

- a. Every individual, chapter, or entity desiring a Land Withdrawal Designation on the Navajo Nation shall submit an Application for Land Withdrawal to the Navajo Land Department (NLD). The Application shall be accompanied by the following supporting documents:
 - i. A letter of application or cover letter;
 - ii. A proposal for the planned use of the land; and
 - iii. A legal survey or GPS land description indicating the location.
- b. An entity requesting a Land Withdrawal Designation shall then submit their proposal to the Chapter to obtain a Resolution of Support.
 - i. All Chapter Resolutions should contain standard language approving a Land Withdrawal for either community development or industrial development.
 - ii. Resolutions of Support for community development Land Withdrawal Designations shall contain the following language: "The _____ Chapter hereby supports and recognizes this land withdrawal for community development, which may include, but is not limited to, the following purposes: housing, education, economic development, healthcare facilities, public use, or governmental use. Industrial development is not supported for this area." To change the use, Chapter approval must be obtained.

- iii. Resolutions of Support for industrial development Land Withdrawal Designations shall contain the following language: "The _____ Chapter hereby supports and recognizes this Land Withdrawal Designation for the sole purpose of industrial development. Industrial development shall be considered the economic activity concerned with the manufacture, and processing of materials or construction." To change the use, Chapter approval must be obtained.
 - iv. Once the Chapter Resolution of Support is passed by the affected Chapter, return the signed Resolution of Support to the NLD.
- c. The NLD will acquire the necessary consent from all grazing permittees holding a valid grazing permit with an interest in the land as applicable and required under 16 N.N.C. sections 1402 *et seq.* Consent will include infrastructure that supports the development and no additional consents are necessary.
- d. In the event the grazing permittees will not consent, but the proposed project is in the best interest of the community and the Navajo Nation, the appropriate authorities may undertake eminent domain as allowed pursuant to 16 N.N.C. §§ 1401-1403.
- e. Approval from NLD.
- i. If all requirements are met, the NLD will approve the Land Withdrawal Designation. NLD will subsequently record the Land Withdrawal Designation on the Navajo land title recording system.
 - ii. The NLD will not approve and record a Land Withdrawal Designation until all required documents are provided for review.
- f. If the Designation Holder is not the Navajo Nation Government, they must then begin the leasing process pursuant to The Navajo Leasing Act, Business Site Leasing Regulations, or General Leasing Regulations prior to any development, disturbance, use, or occupation of the land.

§ 8. Change in purpose.

- a. If the Designation Holder changes the purpose of the Land Withdrawal Designation, they must go back to the affected Chapter to obtain a new Resolution of Support.
- b. If a Chapter, as Designation Holder, wishes to permit an outside entity use of a portion of or the entire Land Withdrawal Designation, the Chapter must relinquish

The scope and administration of this delegation of authority to the Director of the Navajo Land Department and Administrative Regulations may be amended or rescinded by the Resources and Development Committee of the Navajo Nation Council.

6/16/2015 (3)

LAND WITHDRAWAL DESIGNATION PROCEDURE
consistent with Resolution No. RDCJN-33-15

I. Chapter or Proposed Land Withdrawal Designation Holder Responsibilities

- A. Draft proposed Chapter Resolution of Support (Resolution) for the land withdrawal designation.
1. Make sure a land withdrawal designation is necessary and not some other type of land use. Seek Project Review's assistance for clarification.
 2. If it is determined that a land withdrawal designation is necessary, prepare a resolution consistent with the language identified in Section 7 (b) of the Land Withdrawal Designation Regulations found in the Resources and Development Committees Resolution No. RDCJN-33-15.
 3. Attach a legal survey or GPS description as an Exhibit to the proposed Chapter Resolution showing the exact location and acreage of the proposed land withdrawal designation.
 4. Attach the letter, as an Exhibit to the proposed Chapter Resolution, from the Grazing Official identifying the appropriate valid permit holders (land use or grazing).
- B. After the proposed Chapter Resolution is approved and finalized, the Designation Holder will compile a land withdrawal designation package consisting of the following documents:
1. A letter of application or cover letter
 2. A proposal for the planned use of the land; and
 3. A legal survey or GPS land description indicating the location and acreages of land.
 4. The approved signed Support Chapter Resolution
- C. The Designation Holder will hand-carry or mail the land withdrawal designation package to:
- Division of Natural Resources
Navajo Land Department – Project Review Section
Post Office Box 2249
Window Rock, Arizona 86515
(928) 871-6447
- D. If the Designation Holder is not the Navajo Nation Government, after the Director of the Navajo Land Department (NLD) approves the land

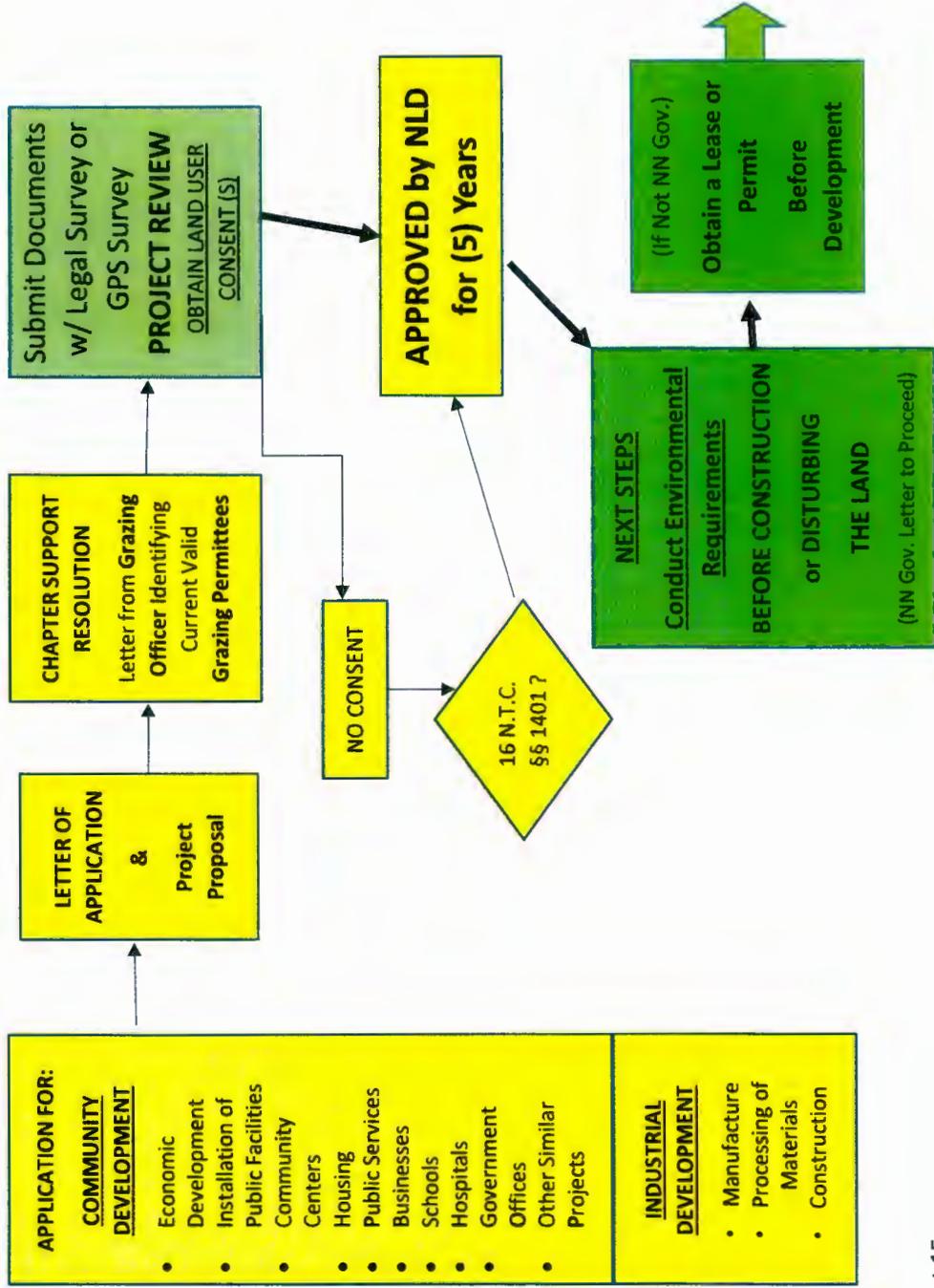
withdrawal designation, the proposed Designation Holder must then begin the leasing process pursuant to the Navajo Leasing Act, Business Site Leasing Regulations, or General Leasing Regulations prior to any development, disturbance, use, or occupancy of the land.

NOTE: Division of Economic Development, Business Regulatory Office handles all Business Site Lease applications.

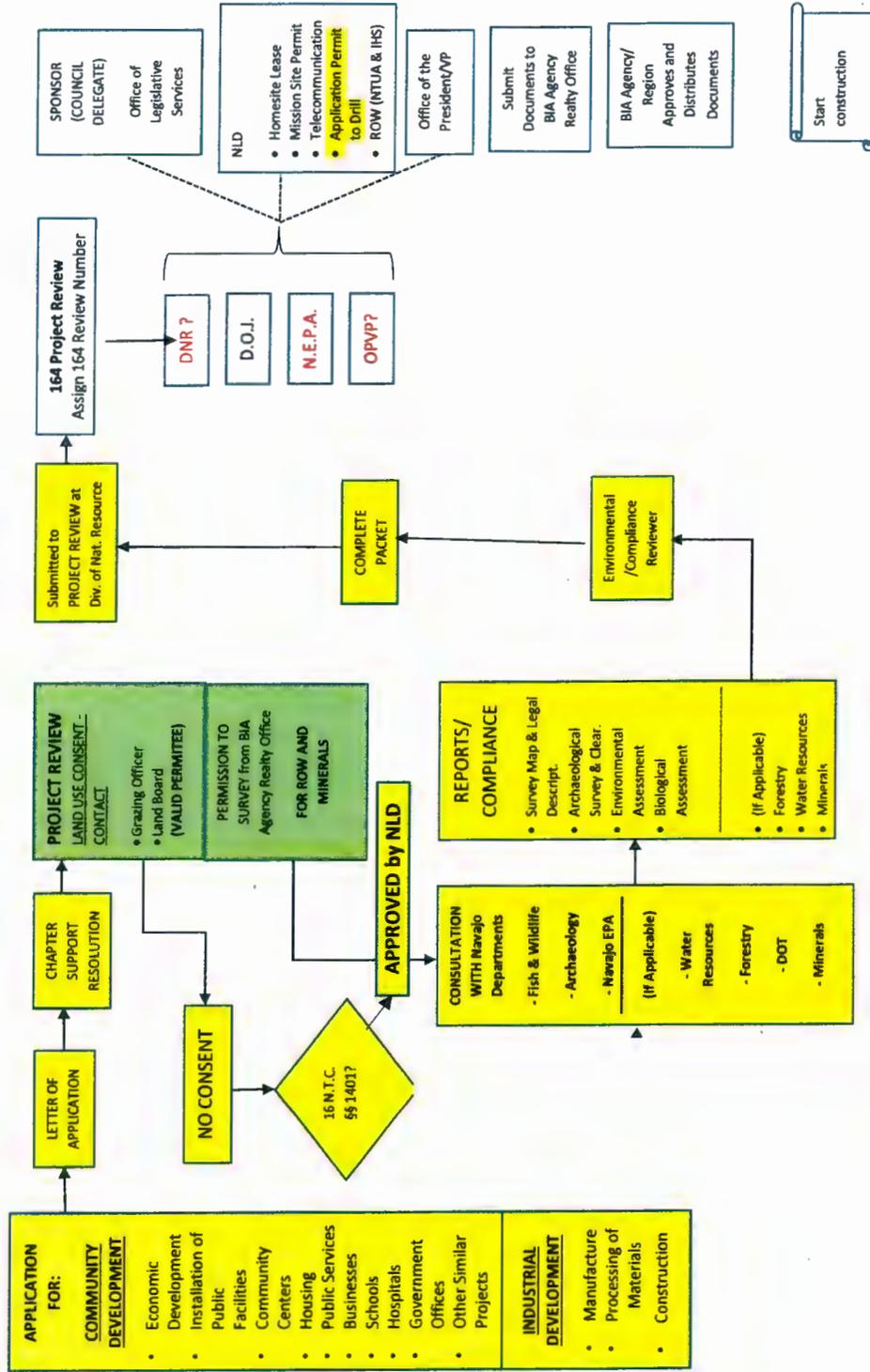
II. Project Review Section Responsibilities

- A. Log in proposed land withdrawal designation package and assign project identification number.
- B. Request Field Clearance services for the proposed designation project area to the Project Review Section Right-of-Way Agents.
- C. After field clearances are obtained, Project Review Section will submit the land withdrawal designation package to the Director of the Navajo Land Department for his/her approval.
- D. If all requirements are met, the Director of NLD will approve the Land Withdrawal Designation.
- E. NLD will subsequently record the Land Withdrawal Designation on the Navajo land title recording system.

Land Withdrawal for Designation



PROJECT DEVELOPMENT PROCESS



the Land Withdrawal Designation and the outside entity must apply for their own Land Withdrawal Designation in their name for their specific purpose.

§ 9. Duration and Renewal.

- a. All Land Withdrawals shall be issued for a term of no more than five (5) years, with the possibility of extension of the term every five years thereafter, so long as the Designation Holder is not in violation of any provision set forth in these Regulations. The term shall be determined by NLD on a case-by-case basis.
- b. If the Designation Holder wishes to extend the Land Withdrawal Designation, the Designation Holder shall give written notice to NLD ninety (90) days prior to expiration of the original term. Renewal of the Land Withdrawal Designation will be at the sole discretion of NLD.
- c. A Land Withdrawal Designation will be terminated if any provision set forth in these Regulations is violated by a Designation Holder.
- d. A Land Withdrawal will be removed from the Navajo Nation land title recording system and open to other applicants for Land Withdrawal Designation or other land use at the expiration of the term or if the Land Withdrawal Designation is terminated for any reason. In the case of a Land Withdrawal Designation for a portion of a pre-existing Chapter land withdrawal, the area will revert back to the Chapter withdrawal status prior to the Land Withdrawal Designation application.

§ 10. Environmental Review Process.

- a. No environmental review is required for Land Withdrawal Designations issued to the non-Navajo Nation Government entities; however, when the entity obtains a lease, the General Leasing Regulations require environmental review.
- b. Since the Navajo Nation Government is not required to obtain a lease prior to development on the land, when the Navajo Nation Government obtains a Land Withdrawal Designation for Navajo Nation Governmental use, an environmental review must be completed.
- c. In the event that a Land Withdrawal Designation was done by the Navajo Nation Government, but the Navajo Nation Government relinquished the Land Withdrawal Designation for use by another non-Navajo Nation Governmental entity, the new Designation Holder must still undergo environmental review when a lease is obtained. Each program conducting an environmental review will determine if the use is

consistent with the former environmental review and will determine whether further analysis needs to be conducted.

§ 11. Oversight and Enforcement.

- a. Every department within the Navajo Nation Government that is responsible for such oversight shall work to ensure that all Land Withdrawal Designations are in compliance with these Regulations and other applicable Navajo Nation law.
- b. The Navajo Nation shall have the authority to enforce the provisions set forth in these Regulations in accordance with applicable Navajo Nation and federal law.

§ 12. Penalties.

- a. If a Designation Holder develops or otherwise disturbs the land without first having a valid lease, the Designation Holder is subject to trespass, and a penalty will be assessed by the NLD. 16 N.N.C. §§ 2251 and 2252.

§ 13. Transfer of Land Withdrawal Designations.

The NLD will approve transfers of Land Withdrawal Designations if the following conditions are met:

- a. Consent from the original Designation Holder has been acquired.
- b. The original Designation Holder or the transferee are not in violation of the Land Withdrawal Designation;
- c. No development or disturbance has taken place on the land in question;
- d. The purpose of the new Designation Holder is in accordance with the Resolution of Support, or a new Resolution of Support has been obtained;
- e. The transferee agrees to be bound by the terms of the Land Withdrawal Designation; and
- f. The NLD finds no compelling reason to withhold approval.

§ 14. Review and Amendments.



**UNITED STATES DEPARTMENT OF THE INTERIOR
BUREAU OF INDIAN AFFAIRS**

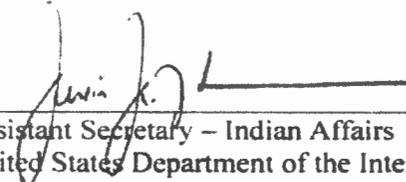
APPROVAL OF

**THE NAVAJO NATION
GENERAL LEASING REGULATIONS OF 2013**

The attached Navajo Nation General Leasing Regulations of 2013, submitted by the Navajo Nation, Arizona, New Mexico, & Utah, and prepared in accordance with 25 U.S.C. § 415(e) Leases of restricted lands for the Navajo Nation, consisting of 25 pages and adopted by the Navajo Nation Council on November 6, 2013, are hereby approved.

Dated: _____

5/16/14



Assistant Secretary – Indian Affairs
United States Department of the Interior

Pursuant to the authority delegated by 209 DM 8

RESOLUTION OF THE
NAVAJO NATION COUNCIL

22nd NAVAJO NATION COUNCIL - Third Year, 2013

AN ACT

RELATING TO RESOURCES AND DEVELOPMENT AND NAABIK'IYÁTI'; APPROVING
THE NAVAJO NATION GENERAL LEASING REGULATIONS OF 2013 AND ENACTING
THE SAME AT 16 N.N.C. §2301 ET SEQ.

BE IT ENACTED:

Section 1. Findings and Purposes

A. Except for mineral leases, the Navajo Nation Trust Land Leasing Act of 2000, 25 U.S.C. § 415(e), Public Law 106-568 ("Leasing Act"), authorizes the Navajo Nation to issue leases without the approval of the Secretary of the Interior. Regulations for issuance of such leases must be consistent with the Leasing Act and approved by the Secretary of the Interior.

B. The process on the Navajo Nation for agriculture, public, religious, educational, recreational and residential leases must be streamlined.

C. The review and approval of the Secretary of the Interior is not necessary for leases authorized and approved by the Navajo Nation under the Leasing Act and Navajo Nation law and regulations.

Section 2. Approving the Navajo Nation General Leasing Act of 2013

The Navajo Nation hereby approves and enacts the Navajo Nation General Leasing Act of 2013, as provided below. Such enactment shall be codified at 16 N.N.C. §2301 et seq. as follows:

Title 16. Land

Chapter 23. Navajo Nation General Leasing Regulations of 2013

Subchapter 1. General Provisions

§ 2301. Authority

The Navajo Nation Trust Land Leasing Act of 2000, 25 U.S.C. § 415(e), P.L. 106-568, Title XII, § 1202, December 27, 2000, 114 Stat. 2933 (hereinafter "Navajo Leasing Act"), authorizes the Navajo Nation to issue Leases, except mineral Leases, without the approval of the

Secretary, provided such Leases are executed under tribal regulations approved by the Secretary. The Secretary is authorized to approve such tribal regulations if such regulations are consistent with the regulations of the Secretary promulgated under 25 U.S.C. § 415(a), and any amendments thereto, and provide for an Environmental Review Process. These regulations will fulfill the requirements of the Navajo Leasing Act.

§ 2302. Purpose

The purposes of the Navajo Nation General Leasing Regulations of 2013 are to:

A. Implement the authority of the Navajo Nation to issue Leases and Permits pursuant to the Navajo Leasing Act, as amended, and to establish streamlined procedures for environmental review, approval, management and enforcement of Leases;

B. Develop a framework for future Navajo Nation regulations that cover specific areas of leasing referenced in § 2305 as required by the Navajo Leasing Act and which are consistent with these General Leasing Regulations. The General Leasing Regulations must be in place prior to any Leases or Permits being approved under the authority of the Navajo Leasing Act;

C. Promote self-determination, encourage self-sufficiency, and improve efficiency of leasing of Navajo Nation Trust Lands;

D. Identify and implement processes to protect and preserve Navajo Nation Trust Land, including provisions for trust asset accounting, modern leasing practices, and accurate record keeping and title recording.

§ 2303. Title

These Regulations shall be referred to as the Navajo Nation General Leasing Regulations of 2013.

§ 2304. Definitions

For purposes of these Regulations:

A. Assignment means an agreement between a lessee/assignor and an assignee whereby the assignee acquires all of the lessee/assignor's rights and assumes all of the lessee/assignor's obligations under a Lease.

B. Bond:

i). Appeal Bond means a guarantee of a certain sum of money sufficient to protect the financial interest of the Navajo Nation pending the outcome of any appeals provided for under these Regulations;

ii). Performance Bond means a guarantee from a third party Surety that ensures performance obligations under a Lease, including but not limited to annual lease payments, development of improvements and reclamation requirements, if any.

C. BIA means the Bureau of Indian Affairs of the United States Department of the Interior.

D. Categorical Exclusion or CATEX means a category of actions which do not individually or cumulatively have a significant effect on human health or the environment and is therefore not subject to the Environmental Review Process under Subchapter 8 of these Regulations.

E. Cognizant Agency for purposes of environmental review means the Navajo Nation Environmental Protection Agency and the Navajo Nation Departments of Historic Preservation and Fish and Wildlife, and any successor or equivalent Navajo Nation agencies with authority for environmental compliance review.

F. Compliance Determination for purposes of environmental review means a "Cultural Resource Compliance Form," a "Biological Resource Compliance Form," or their equivalent.

G. Delegation of Authority means, where, upon approval of the Resources and Development Committee of the Navajo Nation Council, or its successor in authority, a political subdivision of the Navajo Nation assumes leasing authority for Leases described within these Regulations that are also delegable pursuant to the Local Governance Act, 26 N.N.C. §§ 1-2005, as amended, or other relevant Navajo Nation law.

H. Exempt Activities means activities that are exempt by Navajo Nation or federal law from the Environmental Review Process under Subchapter 8 of these Regulations.

I. Fair Annual Lease Value means the most probable dollar amount a property would bring in a competitive and open market.

§ 2305. Scope

A. These Regulations apply to all Leases and Permits for use or possession of Navajo Nation Trust Lands authorized under 25 U.S.C. §§ 415(a), 415(e) and 635(a), including Leases for the development or utilization of natural resources, including renewable energy Leases and agricultural Leases, telecommunications site Leases, and Leases for public, religious, educational, recreational, or residential purposes, except business site leases which are authorized pursuant to Navajo Nation Business Leasing Regulations of 2005 approved by the Secretary on July 10, 2006. These Regulations shall not apply to mineral Leases. Nothing herein shall be construed to affect the terms and conditions of an existing Lease.

B. Leases are mandatory for any short or long term use of Navajo trust land or where any permanent structure is fixed or located on Navajo trust land. Failure to comply with this section shall be addressed pursuant to Navajo Nation law.

§ 2306. Effective Date

These Regulations shall take effect upon approval by the Secretary.

§ 2307. Choice of Law

All disputes arising out of Leases shall be resolved under the laws of the Navajo Nation, unless such laws are in conflict with federal law. Nothing herein shall be construed as a waiver of the sovereign immunity of the Navajo Nation.

§ 2308. Duration and Renewal

No Lease shall be approved more than twelve (12) months prior to the commencement of the term of the Lease. A Lease for public, religious, educational, recreational, or residential purposes may provide for a term up to and not to exceed seventy-five (75) years. The term of a Lease for any other purpose shall not exceed twenty-five (25) years except that any such Lease may include an option to renew for up to two additional terms, each of which may not exceed twenty-five (25) years on such terms and conditions as may be specified in such Lease, or such greater term as may be authorized by Congress. Unless the term of a Lease is for less than one year, a lessee shall notify the Navajo Nation of its intent to renew a Lease at least one year prior to the end of the lease term.

Subchapter 2. Obtaining a Lease

§ 2320. Information

Information on obtaining a Lease shall be available at the Navajo Land Department (NLD) of the Navajo Nation Division of Natural Resources, or other places authorized by Navajo Nation law. All applicants for Leases shall submit to the Navajo Nation a cover letter requesting a Lease. The Navajo Land Department, or political subdivision of the Navajo Nation, as applicable, shall inform the potential lessee of the requirements and requisite documentation needed to obtain a Lease.

§ 2321. Lease Application Supporting Documents

A. A final Lease application requires the following documents for processing: (1) a fully completed Lease form; (2) an appraisal, if applicable; (3) a certified site survey, survey plat and legal description; (4) documentation of environmental review made pursuant to subchapter 8 of these Regulations; and (4) other documents as may be required pursuant to Navajo Nation law or policies, or applicable federal law.

B. The NLD or its successor shall not process the Lease or Permit application for final approval until all the required documents under this section have been provided for review and consideration by the authorized approving authority.

§ 2322. Records

A. The Navajo Nation shall record all Leases, Permits (except Permits that do not involve any land disturbance) Subleases, Assignments, amendments, encumbrances, renewals, modifications and cancellations, made, issued or otherwise authorized pursuant to these Regulations, with the:

Land Title and Records Office

Southwest Regional Office

Bureau of Indian Affairs

P.O. Box 26567

Albuquerque, NM 87125-6567

B. A copy of a Lease and all amendments, renewals, cancellations, and Assignments thereto shall also be sent for information purposes only to the Secretary of the Interior, c/o the Bureau of Indian Affairs, Navajo Regional Office, for the appropriate Agency Real Estate Services Offices at the addresses provided below,

pursuant to 25 U.S.C. §§ 415 (e)(4)(A) and (B). The five Agency Real Estate Services Offices are:

<u>Agency</u>	<u>Address</u>
<u>Chinle Agency</u>	<u>Real Estate Services</u> <u>P.O. Box 7H</u> <u>Chinle, AZ 86503</u>
<u>Eastern Navajo Agency</u>	<u>Superintendent</u> <u>Attention: Real Estate</u> <u>Services</u> <u>P.O. Box 328</u> <u>Crownpoint, NM 87313</u>
<u>Fort Defiance Agency</u>	<u>Real Estate Services</u> <u>P.O. Box 619</u> <u>Ft. Defiance, AZ 86504</u>
<u>Shiprock Agency</u>	<u>Real Estate Services</u> <u>P.O. 3538</u> <u>Shiprock, NM 87420</u>
<u>Western Navajo Agency</u>	<u>Real Estate Services</u> <u>P.O. 127</u> <u>Tuba City, AZ 86045</u>

§ 2323. Ownership of Records

Records of activities taken pursuant to these Regulations are the property of the United States and the Navajo Nation and its delegated political subdivisions. Records compiled, developed or received by the Navajo Nation in the course of business with the Secretary are the property of the Navajo Nation.

Subchapter 3. Lease Requirements

§ 2330. Terms and Conditions

Leases shall be in a form approved by the Navajo Nation in accordance with applicable law and shall include standard terms and conditions. The standard terms and conditions may be modified only with the approval of the Navajo Nation. Leases may contain a provision that requires a lessee to consent to the jurisdiction of the Navajo Nation to address all issues arising out of the Lease.

§ 2331. Land Descriptions

Leases shall contain adequate site surveys and legal descriptions based on metes and bounds, rectangular, or lot and block systems.

§ 2332. Appraisal, Local StudiesA. Appraisal Method:

1. The Fair Annual Lease Value shall be determined by an appraisal or equivalent procedure performed by the Navajo Nation utilizing the following data: improvement cost, replacement cost, earning capacity, and sales and Lease data of comparable sites.

2. Alternatively, the Fair Annual Lease Value shall be determined by an appraisal performed by a licensed appraiser utilizing the Uniform Standards of Professional Appraisal Practice or other commonly accepted method of appraisal.

3. An appraisal log reporting the methods of appraisal and appraisal value of trust land shall be attached to every Lease.

B. If the need arises, the Navajo Nation may seek assistance from the Office of Special Trustee's Navajo Region, Branch of Appraisal, for technical assistance in reviewing an appraisal or to perform an appraisal required under these Regulations.

C. No appraisal shall be required for a Lease for i) residential purposes, including home sites, schools, religious facilities, or medical facilities; ii) Leases for use of Navajo Nation Trust Land by federal, state and local governments, non-profits, public projects or public utilities, where such entities or projects are providing essential governmental or utility services to Navajo people; or iii) for other public purposes as authorized by applicable laws and regulations.

§ 2333. Environmental Review Process

The Navajo Nation shall not make a final Leasing or Permitting Decision unless the Nation has ensured compliance with the Environmental Review Process ("ERP") required under these Regulations. The Navajo Nation shall not approve of any Lease or Permit if there is a determination of non-compliance under Subchapter 3 in these Regulations. Leases executed in material violation of this section shall be null and void.

§ 2334. Fair Annual Lease Value

A. Unless otherwise provided, no Lease shall be approved for less than the present Fair Annual Lease Value as set forth in the appraisal, except as follows:

1. The lessee is in the authorized development period;
2. The Navajo Nation is providing an incentive for the Lease applicant to locate on the Navajo Nation, and must provide Lease concessions, Lease improvement credits, and Lease abatements to attract the proposed Lease activity ; or
3. The Navajo Nation otherwise determines such action is in the best interest of the Navajo Nation.

B. Unless otherwise provided, Lease payments will be structured on a flat lease rate basis.

C. Unless otherwise provided, the Lease shall provide for periodic review and adjustment at least every five years. Such review and adjustment shall give consideration to the then existing economic conditions, exclusive of improvement or development required by the contract or the contribution value of such improvement or development.

D. Leases for terms of less than five years may be structured to allow for lease rate adjustments. The Lease shall specify how adjustments will be made, who will make such adjustments, when adjustments will go into effect, and how disputes shall be resolved.

E. Leases may be amended to allow for lease rate adjustments.

F. The Navajo Nation may waive the rent, or charge nominal rent, for i) residential Leases, including home sites, schools, religious facilities, or medical facilities; ii) Leases for use of Navajo Nation Trust Land by federal, state and local governments, non-profits, public projects and public utilities, where such entities or projects are providing essential governmental or utility services to Navajo people; or iii) for other public purposes as authorized by applicable laws and regulations.

G. The Navajo Nation shall keep written records of the basis used in determining the Fair Annual Lease Value, as well as the basis for adjustments. These records shall be included in the appropriate Lease file.

§ 2335. Performance Bond

A. The lessee, unless otherwise provided, shall obtain a satisfactory Performance Bond or other Surety acceptable to the Navajo Nation, in an amount that reasonably assures performance of the Lease. Such Bond shall be for the purpose of guaranteeing:

1. The annual Lease payment;
2. The estimated development cost of improvements;
3. Compliance with a reclamation plan, if applicable; and
4. Any additional amount necessary to ensure compliance with the Lease.

B. The Navajo Nation may waive the Bond requirement, or reduce the amount, if doing so is in the best interest of the Navajo Nation. In the event that a reclamation plan is determined to be necessary by the Nation, the lessee shall be required to submit such a plan prior to Lease approval, and implement the plan at termination of the Lease. This Bond requirement shall not apply where the Navajo Nation has waived the rent, except where a reclamation plan is determined necessary. The Navajo Nation shall maintain written records of waivers and reductions in the appropriate Lease file.

§ 2336. Insurance

A lessee shall secure insurance from a nationally accredited insurance company with a financial strength rating of "A" or equivalent, and must be authorized to do business in the state where the premises is located, or authorized by the Navajo Nation according to applicable Navajo Nation law. It shall cover general liability and casualty. The amount shall be sufficient to cover the improvements, personal injury or death, and any reasonably potential foreseeable loss of the lessor and the United States. The insurance shall expressly identify the lessor and the United States as additional named insured parties. The insurance requirements shall not apply to home site Leases or when the Navajo Nation is the lessee. The Navajo Nation may waive the insurance requirement for any lessee that is an entity or enterprise of the Navajo Nation.

§ 2337. Improvements

A. Improvements to the premises shall become the property of the Navajo Nation at the termination of the leasehold unless otherwise provided for in the Lease. If the Lease authorizes the

improvements to be removed by the lessee, the Lease shall specify the time allowed for such removal.

B. If provided for in the Lease, a lessee may develop equity value in the improvements, and sell its interest in the Lease based on the equity value. The Navajo Nation shall have a right of first refusal to purchase such interest.

§ 2338. Subleases, Assignments, Amendments and Encumbrances

A. All Subleases, Assignments, amendments or encumbrances of any Lease shall require the written consent of the Navajo Nation as well as any sureties, unless otherwise provided herein.

B. A Lease may authorize Subleases, in whole or in part. The lessee shall remain liable for its duties under the Lease notwithstanding any subleasing of the leasehold or any part thereof.

C. The Lease may authorize encumbrances to the leasehold interest for the purpose of financing to develop and improve the premises, subject to the approval of the Navajo Nation. If a sale or foreclosure occurs and the encumbrancer is the purchaser, the encumbrancer may assign the Lease without approval of the Navajo Nation or lessee, provided the encumbrancer/assignee must agree in writing to be bound by all the terms and conditions of the Lease. If the purchaser is a party other than the encumbrancer, approval by the Navajo Nation shall be required, and any approved purchaser must agree in writing to be bound by all the terms and conditions of the Lease.

Subchapter 4. Lease Administration

§ 2350. Administration

A. The Navajo Nation shall administer Leases executed pursuant to these Regulations and may administer existing Leases previously approved by the Secretary as may be provided for under a P.L. 93-638 self-determination contract or compact or under other applicable authority.

B. The Navajo Nation shall employ sound real estate management practices in exercising its authority under these Regulations, including without limitation accounting, collections, monitoring, enforcement, relief, and remedies.

C. Political subdivisions of the Navajo Nation may issue Leases pursuant to a Delegation of Authority provided they do so in accordance with these Regulations and Navajo Nation law.

Administration by a political subdivision of Leases executed prior to such political subdivision obtaining such authority shall require an Assignment of the Navajo Nation's duties and rights as lessor and consent of the lessee. Such Delegation of Authority shall be revocable by the Resources and Development Committee of the Navajo Nation Council upon recommendation of the Navajo Nation Department of Justice.

§ 2351. Accounting

The Navajo Nation shall implement and/or maintain an accounting system to ensure proper payment on Leases where applicable, in accordance with Navajo Nation law and fiscal policies.

§ 2352. Administrative Fees

The Navajo Nation may charge administrative fees for costs associated with issuing a Lease, Sublease, Assignment, amendment, mortgage or other administrative transaction.

Subchapter 5. Enforcement

§ 2360. Enforcement

The Navajo Nation and its delegated political subdivisions shall have the authority to enforce the terms and conditions of Leases and Permits issued under these Regulations in accordance with applicable Navajo Nation and federal law.

§ 2361. Defaults, Cancellation and Remedies

A. A Lease shall include provisions for fair notice, default, and remedies. Upon a showing satisfactory to the Nation that there has been a violation of the Lease or these Regulations, or of any law or regulation specifically applicable under the Lease, by a lessee, the lessee shall be provided with written notice of the alleged breach, and given ten (10) days to show cause why the Lease should not be cancelled. Upon request by the lessee, the lessee shall be given a reasonable opportunity to cure a breach which the Navajo Nation determines can be corrected and the lessee shall proceed diligently to perform and complete the corrective actions within a reasonable time period as established by the Navajo Nation's authorized representative.

B. If the Navajo Nation cancels a Lease, the Navajo Nation shall provide the lessee with thirty (30) days' advance notice of the cancellation by certified mail, which shall become effective thirty-two (32) days after mailing. Such notice shall state the right to

appeal to the Office of Hearing and Appeals pursuant to Subchapter 6 of these Regulations, and a statement of any monies due.

C. In case of the cancellation of a Lease, the filing of an appeal shall not change the effective date of the cancellation, but shall stay any eviction proceeding in accordance with Subchapter 6 of these Regulations. Pending the outcome of an appeal, the lessee shall make all requisite payments, as well as comply with the terms of the Lease, including any requirements for environmental or hazardous waste remediation and reclamation of the leasehold premises. If the lessee fails to make such payments pending the outcome of an appeal, the stay shall be lifted and the Navajo Nation may immediately commence eviction proceedings, bring an action in forcible entry and detainer, pursue remedies under the Navajo Nation Civil Trespass Act, or take any other action the Navajo Nation deems appropriate to protect its interests.

§ 2362. Penalties

A Lease shall specify the rate of interest to be charged if the lessee fails to make payments in a timely manner and identify additional late payment penalties. Unless the Lease provides otherwise, interest charges and late payment penalties shall apply in the absence of any specific notice to the lessee from the Navajo Nation, and the failure to pay such amounts shall be treated as a breach of the Lease.

§ 2363. Harmful or Threatening Activities

If a lessee or other party causes or threatens to cause immediate and significant harm to the premises, or engages in criminal activity thereon, the Navajo Nation may take appropriate emergency action in accordance with Navajo Nation law, including immediately cancelling the Lease, commencing eviction proceedings, bringing an action in forcible entry and detainer, pursuing remedies under the Navajo Nation Civil Trespass Act, or taking any other action deemed appropriate to protect the public interest, the premises, and the environment.

§ 2364. Holdover and Trespass

If a lessee remains in possession after the expiration or cancellation of a Lease, the Navajo Nation may treat such occupation as a holdover tenancy, or as a Trespass, and if treated as a Trespass may pursue any remedy available under Navajo Nation or federal law.

Subchapter 6. Appeals

§ 2370. Appeals

A. A lessee or Interested Party may appeal a final determination of the Navajo Nation regarding a Lease within twenty (20) days of the determination. Such appeal shall be filed with the Navajo Nation Office of Hearings and Appeals (OHA). The written complaint shall set forth in plain language the basis for the appeal, a short statement demonstrating the interest of the appellant, a short statement indicating the nature and circumstance of the appeal, and a short statement indicating the remedy being sought. A stay of enforcement shall be effectuated only by the filing of an Appeal Bond set by the OHA pending the exhaustion of all available Navajo Nation remedies, except in matters involving home site Leases, which shall not require an Appeal Bond. Service of process shall be made on the authorized Navajo Nation representative identified in the Lease and to the Navajo Nation Office of the Attorney General in accordance with the Navajo Rules of Civil Procedure.

B. An Appeal Bond shall be set in an amount sufficient to protect the Navajo Nation from all financial losses that may occur as result of the appeal. Appeal Bond requirements shall not be separately appealed, but may be contested during the appeal as a preliminary matter for expedited decision by OHA.

C. The OHA shall uphold the determination of the Navajo Nation unless it is:

1. Arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with the law;
2. In excess of statutory jurisdiction, authority, or limitations or short of statutory right;
3. Without observance of procedure required by law; or
4. Unsupported by substantial evidence.

§ 2371. Appeals to the Navajo Nation Supreme Court

The lessee or Interested Party may appeal, within thirty (30) days, the final decision of OHA to the Navajo Nation Supreme Court. A stay of execution may be effectuated by the Navajo Nation Supreme Court only by the filing of an Appeal Bond except in matters involving home site Leases which shall not require an Appeal Bond. The failure to exhaust administrative remedies before the OHA or to file an appeal within thirty (30) days shall be a jurisdictional bar to the filing and consideration of any such appeal. Review shall be limited to issues of law and the record. The Court shall uphold

findings of fact if supported by substantial evidence and review issues of law de novo. A finding of fact is supported by substantial evidence where, upon examining the relevant evidence, a reasonable mind could accept the evidence as adequate to support the conclusion, even if it is possible to draw two inconsistent conclusions from the evidence.

[Subchapter 7. Reserved]

Subchapter 8. Environmental Review Process

§ 2380. Environmental Reviewer

Prior to exercising leasing authority under these Regulations, the Navajo Nation shall create a position within the Navajo Nation Division of Natural Resources to be the Environmental Compliance Officer for Leases ("Environmental Reviewer" or "ER") who shall be responsible for carrying out the Environmental Review Process ("Environmental Review Process" or "ERP") under this Subchapter. The ER will consult with the relevant Navajo Nation agencies and determine which Cognizant Agency is responsible for making Compliance Findings for each of the areas and/or laws identified in §2384 of this Subchapter.

§ 2381. Environmental Reviewer's Authorities and Duties

A. The ER shall:

1. Review all proposed Leases and Permits to ensure compliance with these Regulations and other applicable law and policies.

2. Establish procedures to expedite the Compliance Determination process, and consult with appropriate Navajo Nation agencies in the development and implementation of any such procedures.

3. Perform the ERP and make a summary of Environmental Review Findings and Compliance Determinations ("Compliance Determination Summary").

4. Complete an Environmental Review Record ("ERR" or "Record").

B. At his or her discretion, the ER may provide the lessee with technical assistance to remedy deficiencies found within the contents of the Compliance Determination forms.

§ 2382. Threshold Determinations

A. Leasing and Permitting Decisions Not Subject to ERP: (i) The Navajo Nation is not required to undertake an environmental review under these Regulations for activities exempt under Navajo Nation or federal law. (ii) The Navajo Nation is not required to undertake an environmental review under these Regulations for activities it determines are a CATEX, unless the activities may have a Significant Impact on the quality of the human environment. If the ER determines that a Leasing Decision is exempt or qualifies as a CATEX, the ER shall provide written documentation of such determination.

B. If the ER determines, after consulting with the Cognizant Agencies, that the Leasing Decision by its nature would not individually or cumulatively have a Significant Impact on human health or the environment, to include the biological and cultural resources of the Navajo Nation, the ER shall issue a written Finding of No Significant Impact and the Leasing Decision shall be exempt from additional requirements of the ERP, subject to the recording requirements of §2388 and §2389; CATEX activities include:

1. Acquisition, repair, improvement, reconstruction, or rehabilitation of buildings and improvements not requiring a change in land use.
2. Acquisition, repair, reconstruction, or rehabilitation of facilities (other than buildings) and improvements not changing the size or capacity, and not changing the design use.
3. Activities already contemplated under a master Lease for which the environmental review was already completed.
4. Renewals, extensions and amendments to existing Leases and Permits where the environmental review was already completed, and no Significant Impact to the human environment will occur.
5. Removal of materials and architectural barriers that restrict the accessibility of elderly and handicapped persons.

C. Leasing Decision Subject to Environmental Review Process: If the ER determines that the Leasing Decision may individually or cumulatively have a Significant Impact on human health or the environment, including but not limited to impacting, altering, or

disturbing the biological and cultural resources of the Navajo Nation, the Leasing Decision shall be subject to the ERP.

§ 2383. Action on Leasing Decision Subject to Completion of ERP

If the ER determines that a Leasing Decision is subject to an ERP, the Leasing Decision shall not be made until the ER completes the ERP as required by these Regulations.

§2384. Lessee Responsible for Environmental Compliance Determinations

A. A lessee has primary responsibility for providing documentation of environmental compliance. The Lessee shall provide to the ER a Compliance Determination for all environmental laws, Regulations and policies, as amended, applicable to the Leasing Decision, including, but not limited to the following:

- National Historic Preservation Act, 16 U.S.C. §§ 470 et seq.
- Endangered Species Act, 7 U.S.C. § 136, U.S.C. §§ 1531 et seq.
- Farmland Protection Policy Act, 7 U.S.C. §§ 4201 et seq.
- Clean Air Act, 42 U.S.C. §§ 7401 et seq.
- Eagle Protection Act, 16 U.S.C. §§ 668-668c
- Migratory Bird Treaty Act, 16 U.S.C. §§ 703-712
- Navajo Nation Environmental Policy Act, 4 N.N.C. §§ 901 et seq.
- Navajo Nation Cultural Resources Protection Act, 19 N.N.C. §§ 1001 et seq.
- Navajo Nation Solid Waste Act, 4 N.N.C. §§ 101 et seq.
- Navajo Nation Air Pollution Prevention and Control Act, 4 N.N.C. §§ 1101 et seq.
- Navajo Nation Safe Drinking Water Act, 22 N.N.C. §§ 2501 et seq.
- Navajo Nation Clean Water Act, 4 N.N.C. §§ 1301 et seq.

- Navajo Nation Underground Storage Tank Act, 4 N.N.C. §§ 1501 et seq.
- Navajo Nation Pesticide Act, 4 N.N.C. §§ 301 et seq.
- Golden and Bald Eagle Nest Protection Regulations (GBENPR)
- Navajo Endangered Species List (NESL)
- Biological Resource Land-Use Clearance Policies and Procedures (RCP)
- All other applicable Navajo Nation and federal laws, regulations and policies

B. Lessee's responsibility to provide said environmental Compliance Determinations under this Subchapter is in addition to and separate from lessee's ongoing obligation to comply with all applicable environmental laws.

§ 2385. Compliance Determinations

A. The lessee shall request a Compliance Determination from each Cognizant Agency identified by the ER and shall provide said agency with the information it requires to make the Compliance Determination. Findings and Compliance Determinations must be signed by the agency official responsible for such findings and determinations.

B. The Compliance Determination performed by the Cognizant Agencies must clearly describe the Leasing Decision under consideration, provide an evaluation of the Leasing Decision's impact on the regulated resource or condition, and provide a finding whether the Leasing Decision will comply with all applicable environmental laws under that agency's purview, and identify any mitigation required for compliance.

C. If the ER and the lessee have made reasonable efforts to obtain a Compliance Determination from the Cognizant Agency, and are unable to obtain a Compliance Determination within thirty (30) days of the Agency having received the request for a determination and all applicable information, the ER may make the Compliance Determination, provided, the Compliance Determination must be supported by knowledge and reliable information which can be obtained from other sources.

§2386. Compliance Determinations in Earlier or Concurrent Environmental Review Documents

A. If the Leasing Decision pertains to an existing Lease that has undergone an environmental review pursuant to the these Regulations, the Nation's Business Site Leasing Regulations, or the National Environmental Policy Act of 1969, 42 U.S.C. § 4321 et. seq. (NEPA), those earlier environmental review documents may be used to meet one or more Compliance Determination(s) under this Subchapter, subject to the ER's determination in §2388 that the Compliance Determination adequately evaluates the impacts of the Leasing Decision.

B. As early in the process as possible, the ER should review the earlier environmental review documents and assess whether the Compliance Determinations in those documents sufficiently evaluate the impacts of the Leasing Decision. If disturbances associated with the Leasing Decision were not evaluated by the earlier environmental review documents, a compliance update or amendment from the agency that has regulatory responsibility for the resource that has not been adequately evaluated shall be required.

C. In the event a federal agency requires the lessee to conduct an environmental review under NEPA in connection with a federal decision that is related to the Leasing Decision, the ER may use those NEPA documents for purposes of the ERP if the documents meet the requirements of this Subchapter.

§ 2387. Public Notice Requirements and Hearings

A. If the ER finds that a Leasing Decision is likely to have a Significant Impact on the human environment, the ER will consider and analyze reasonable alternatives that may minimize the impacts and provide the public notice of the Navajo Nation's intent to complete an ERP as well as the opportunity to comment on the alternatives.

B. Such notice will be published in a local newspaper of general circulation, and will provide for a thirty (30) day comment period, which may be extended for good cause in the ER's discretion. The Notice will identify where the Environmental Review Record ("Record" or "ERR"), may be obtained. The notice will state that public comments which are timely received will be considered before the ER completes the ERP.

C. The ER shall determine whether or not to hold public hearings. The ER shall consider the following factors in making its determination:

1. Economic cost;
2. Geographic areas;
3. Amount of resources needed;
4. Degree of controversy or support; and
5. Extent to which public involvement may have been achieved by other means.

D. All public hearings shall be published in the media at least fifteen (15) days prior to the hearing. The notice shall include the following information:

1. The date, time, place and purpose of the public hearing;
2. A description of the project, its location, estimated cost and benefits;
3. A statement that individuals will be afforded the opportunity to comment on environmental issues;
4. State the ER's name and address; and
5. State what documents are available for review by the public where they may be obtained, and any charges that may apply to providing the information to the public.

§ 2388. Finding of Environmental Compliance and Completion

A. Before the ER may complete the ERP, the ER shall:

1. Ensure that the public comment period has passed, if applicable, and the ER has considered any comments and incorporated the comments and any responses of the Navajo Nation as appropriate into the Record;
2. Affirmatively find and place in the Record a signed, dated statement that the Leasing Decision is in compliance with all applicable environmental requirements ("Finding of Compliance").
3. Place a summary of the Compliance Findings in the Record, which shall include:
 - i. The identification of the source of a Compliance determination if contained in an earlier environmental review; and
 - ii. A summary and copy of each Cognizant Agency's Compliance Determination for all applicable

environmental laws under that agency's purview, including any conditions of compliance or required mitigation.

B. Upon Completion of the ERP, the ER will transfer the Record to the appropriate Navajo Nation official or legislative body that has the authority to make a final Leasing Decision.

§ 2389. Environmental Review Record

A. An Environmental Review Record must be completed for every ERP, including for Leasing Decisions the ER finds to be exempt from the ERP, qualifies as a CATEX or exempt from a full ERP based upon a Finding of No Significant Impact under §2382 (A) and (B). The ERR must be maintained in a written format and shall be available for public review in accordance with the Navajo Nation Privacy Act, 2 N.N.C. §§ 81 et seq., as amended.

B. The Environmental Review Record must contain all documents relevant to the ERP, including but not limited to, the following:

1. Written determinations by the ER pursuant to this Subchapter;
2. Correspondence with the Lessee and government agencies including all Cognizant Agencies;
3. Compliance Determinations including source documents and supporting documents;
4. Public notices, if applicable;
5. Public comments and any responses, if applicable; and
6. The Finding of Compliance and Compliance Determination Summary and ER Findings.

§ 2390. Revisions to the Environmental Review Record

A. The ER shall reopen an ERR if:

1. There are changes in the nature, magnitude or extent of a proposed activity, and that activity was not already contemplated and may have a significant effect on the human environment.

2. There are changes in the circumstances and environmental conditions, and these were concealed in the original ERR.

3. There are changes in data and conditions since the original ERR was completed.

B. Once the responsibility entity reevaluates the ERR, it shall either revise the ERR, or develop a new ERR.

Subchapter 9. Amendments; Severability

§ 2395. Amendments

A. The Resources and Development Committee of the Navajo Nation Council or its successor may amend these Regulations without the Secretary's approval, so long as the amendment is for clarification or administrative convenience, and is not inconsistent with 25 U.S.C. § 415(e), as amended.

B. The determination of whether a proposed amendment to the Regulations is for clarification or administrative convenience and that it is not inconsistent with 25 U.S.C. §415(E) shall be made by the Attorney General, Navajo Nation Department of Justice.

§ 2396. Severability

If any Navajo Nation court or other court of competent jurisdiction determines a provision in these Regulations or a Lease is invalid, void or unenforceable, the remainder shall remain in full force and effect without regard to the invalid, void or unenforceable portion.

§ 2397. Petitions to the Secretary

Any Interested Party aggrieved by the Navajo Nation's violation of these Regulations may file a Petition with the Secretary within thirty (30) days after exhausting all available Navajo Nation remedies to review the alleged violation as provided for under 25 U.S.C. § 415(e). The failure to exhaust all available Navajo Nation remedies and to file a Petition within thirty (30) days shall be a jurisdictional bar to the filing and consideration of any such Petition. The Secretary shall review any findings of fact under a clearly erroneous standard and shall review any conclusions of federal law de novo, but shall defer to Navajo Nation administrative hearing bodies and/or Navajo Nation courts on the proper

interpretation of Navajo Nation law. In any such Petition, the Secretary shall limit relief to mediation, injunctive relief, declaratory relief, and/or rescinding approval of these Regulations and reassuming responsibility for the approval of Leases for Navajo Nation Trust Lands.

Section 3. Effective Date

Subject to section 2306 of the regulations above, the Act Enacted herein shall be effective pursuant to 2 N.N.C. §221.

Section 4. Codification

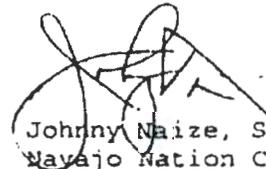
Subject to section 2306 of the regulations above, the provisions of this Act which amend or adopt new sections of the Navajo Nation Code shall be codified by the Office of Legislative Counsel. The Office of Legislative Counsel shall incorporate such amended provisions in the next codification of the Navajo Nation Code.

Section 5. Savings Clause

Should any provision of this Act be determined invalid by the Navajo Nation Supreme Court, or the District Courts of the Navajo Nation without appeal to the Navajo Nation Supreme Court, those provisions of the Act which are not determined invalid shall remain the law of the Nation.

CERTIFICATION

I hereby certify that the foregoing resolution was duly considered by the Navajo Nation Council at a duly called meeting in Window Rock, Navajo Nation (Arizona) at which a quorum was present and that the same was passed by a vote of 16 in favor and 1 opposed, this 22nd day of October 2013.


Johnny Naize, Speaker
Navajo Nation Council

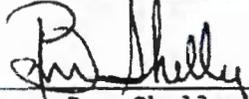
11-01-13

Date

Motion: Honorable Leonard Pete
Second: Honorable Duane Tsinigine

ACTION BY THE NAVAJO NATION PRESIDENT:

1. I hereby sign into law the foregoing legislation, pursuant to 2 N.N.C. § 1005 (C) (10), on this _____ day of NOV 06 2013 2013.



Ben Shelly, President
Navajo Nation

2. I hereby veto the foregoing legislation, pursuant to 2 N.N.C. §1005 (C) (11), this _____ day of _____ 2013, for the reason(s) expressed in the attached letter to the Speaker.

Ben Shelly, President

Navajo Nation

J. Finding of No Significant Impact or FONSI means an Environmental Reviewer determines in a written document that a Leasing Decision will not have a significant impact on the quality of the human environment.

K. Interested Party means an Indian or non-Indian individual or corporation, or tribal or non-tribal government whose interest could be adversely affected by a tribal trust land Leasing Decision made by the Navajo Nation.

L. Lease means a written agreement between the lessor and a lessee, issued under these Regulations as authorized by 25 U.S.C. 55415 (a) and (e), wherein the lessee is granted a right to possess Navajo Nation Trust Land for a specific purpose and limited duration.

M. Leasing Decision in the context of the Environmental Review Process means the following types of Lease or Permit transactions that will be acted on by the Navajo Nation or its delegated political subdivision:

- i). Issuance of a Lease or Permit;
- ii). Amendment or modification of a Lease or Permit;
- iii). Assignment or transfer of a Lease or Permit; and
- iv). Granting of a Sublease as applicable.

N. Navajo Nation means the Navajo Nation Government.

O. Navajo Nation Trust Land means the surface estate of land or any interest therein held by the United States in trust for the Navajo Nation; land held by the Navajo Nation and subject to federal restrictions against alienation or encumbrance; land held by the United States in trust for a Navajo Nation corporation chartered under Section 17 of the Indian Reorganization Act.

P. Permit means a written authorization or license granted by the Navajo Nation whereby the permittee is granted a use or revocable use privilege to use Navajo Nation Trust Land for a specified purpose and limited duration.

Q. Petition means a written request submitted to the Secretary for the review of an action or inaction of the Navajo Nation that is claimed to be in violation of these Regulations. Petition may only be submitted within thirty (30) days after exhausting all remedies available on the Navajo Nation.

R. Regulations mean these Navajo Nation General Leasing Regulations of 2013.

S. Secretary means the Secretary of the U.S. Department of the Interior or his or her authorized representative acting under delegated authority.

T. Significant Impact means a determination that an action will have a significant effect on the quality of the human environment after considering the following:

- i). effects on public health and safety;
- ii). effects on the unique characteristics of the geographic areas, including its historic or cultural resources, park lands or ecologically critical areas;
- iii) highly controversial effects on the human environment;
- iv). highly uncertain or unknown effects on the human environment;
- v). effects in terms of precedent for future actions with significant effects;
- vi). effects that may be individually insignificant, but when considered with other projects, have a significant impact on the environment;
- vii). effects that cause loss or destruction of scientific, cultural, or historical resources; and
- viii). effects on endangered or threatened species or habitat protected under Navajo Nation or federal law.

U. Sublease means a written agreement by which the lessee grants a right of possession no greater than that held by the lessee under the Lease.

V. Surety means one who guarantees the performance of another.

W. Trespass means the unauthorized possession, or occupancy or use of Navajo Nation Trust Land as defined by Navajo Nation or federal law.

10 APPENDIX

Sample Design Matrix

Pineda Chapter CLUPC By-Laws



Appendix B

Flexible Design Matrix

OVERVIEW

The Thoroughfare Development Plan (TDP) is a long-range plan that identifies the location and type of roadway facilities that are needed to meet projected long-term growth within the City. The TDP serves as a tool to enable the City to preserve future corridors for transportation system development as the need arises. It also forms the basis for Arlington's roadway capital improvement program, roadway impact fees, and developer requirements. The TDP provides detailed information related to roadway classification, right-of-way requirements, design criteria, and number of through travel lanes for each thoroughfare within the City.

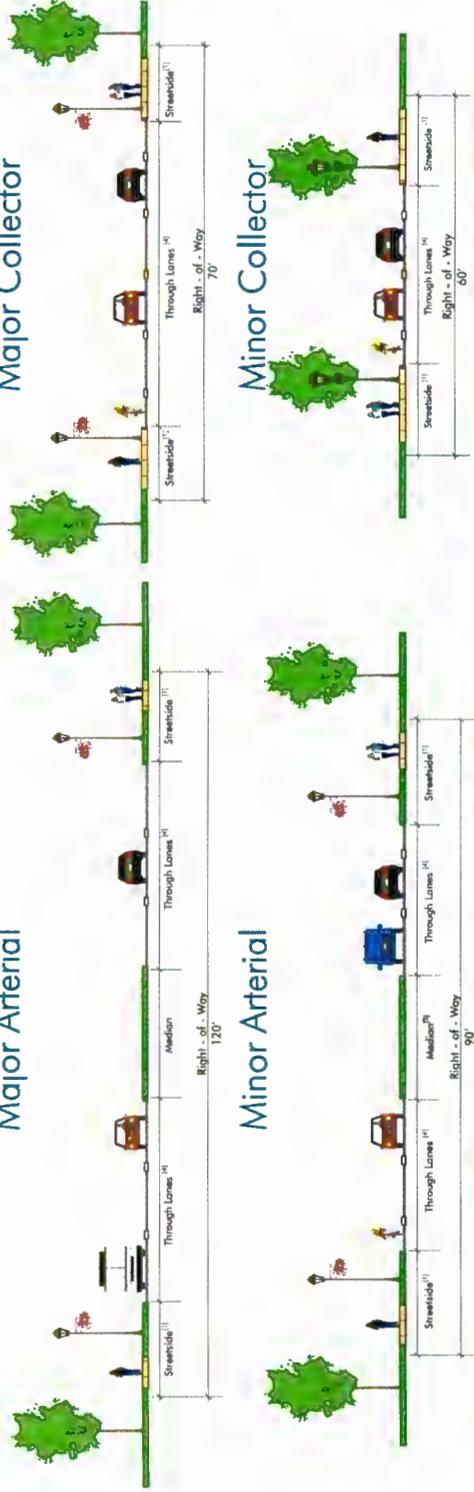
Full TDP Report available at www.arlingtonva.gov/planning/Transportation.html

Direct questions to: (817) 459-6686

Last updated: 06/22/2011

Major Arterial

Major Collector

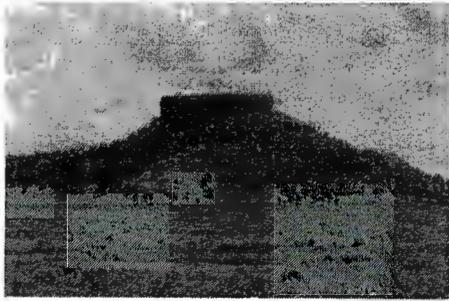


Minor Arterial

Minor Collector

Pedestrian Realm	Major Arterial			Minor Arterial			Major Collector			Minor Collector		
	Suburban ⁽⁴⁾	Urban Core ⁽⁵⁾	Urban ⁽⁶⁾	Suburban ⁽⁴⁾	Urban Core ⁽⁵⁾	Urban ⁽⁶⁾	Suburban ⁽⁴⁾	Urban Core ⁽⁵⁾	Urban ⁽⁶⁾	Suburban ⁽⁴⁾	Urban Core ⁽⁵⁾	Urban ⁽⁶⁾
Recommended Street Width ⁽¹⁾	14 - 26 ft	15 - 27 ft	15 - 27 ft	9 - 23 ft	11 - 25 ft	11 - 25 ft	9 - 23 ft	9 - 25 ft	9 - 25 ft	9 - 19 ft	9 - 19 ft	9 - 19 ft
Recommended Sidewalk Width ⁽²⁾	4 - 10 ft	6 - 12 ft	6 - 12 ft	4 - 10 ft	6 - 14 ft	6 - 14 ft	4 - 10 ft	4 - 14 ft	4 - 14 ft	4 - 8 ft	4 - 8 ft	4 - 10 ft
Recommended Pedestrian Buffer Width ⁽³⁾	8 - 14 ft	7 - 13 ft	7 - 13 ft	4 - 12 ft	4 - 10 ft	4 - 10 ft	4 - 12 ft	4 - 10 ft	4 - 10 ft	4 - 8 ft	4 - 8 ft	4 - 6 ft
Travel Way Realm	4 - 6	4 - 6	4 - 6	2 - 4	2 - 4	2 - 4	2 - 4	2 - 4	2 - 4	2 - 3	2 - 3	2 - 3
Number of Through Lanes ⁽⁴⁾	35 - 45	35 - 45	35 - 45	30 - 40	30 - 40	30 - 40	25 - 35	25 - 35	25 - 35	30	30	30
Target Speed (MPH)	11 - 12 ft	11 - 12 ft	11 - 12 ft	11 - 12 ft	11 - 12 ft	11 - 12 ft	10 - 12 ft	10 - 12 ft	10 - 12 ft	11 - 12 ft	10 - 12 ft	10 - 12 ft
Lane Width	16 - 20 ft	16 - 20 ft	16 - 20 ft	0 - 16 ft	0 - 16 ft	0 - 16 ft	0 - 16 ft	0 - 16 ft	0 - 16 ft	N/A	N/A	N/A
Median Width ⁽⁵⁾	8 - 9 ft	8 - 9 ft	8 - 9 ft	8 - 9 ft	8 - 9 ft	8 - 9 ft	8 - 9 ft	8 - 9 ft	8 - 9 ft	8 - 9 ft	8 - 9 ft	8 - 9 ft
On-Street Parking Width ⁽⁶⁾	6 ft	5 - 6 ft	5 - 6 ft	6 ft	5 - 6 ft	5 - 6 ft	5 - 6 ft	5 - 6 ft	5 - 6 ft	5 - 6 ft	5 - 6 ft	5 - 6 ft
Bike Lanes (minimum) ⁽⁷⁾	120 ft	120 ft	120 ft	90 - 100 ft ⁽⁸⁾	90 - 100 ft ⁽⁸⁾	90 - 100 ft ⁽⁸⁾	70 ft	70 ft	70 ft	60 ft	60 ft	60 ft
Right-of-Way (ROW) ⁽⁸⁾	20,000 - 50,000	15,000 - 50,000	15,000 - 50,000	20,000 - 35,000	10,000 - 35,000	10,000 - 35,000	1,500 - 30,000	1,500 - 25,000	1,500 - 25,000	1,500 - 30,000	1,500 - 25,000	1,500 - 25,000
Anticipated Traffic Volumes												

[1] Streetbed width includes sidewalk, pedestrian buffer and 1' buffer on outside edge of sidewalk.
 [2] Minimum width requirement for a suburban sidewalk is 4', however 6' is preferred as minimum if ROW permits.
 [3] In suburban locations, buffer is typically filled with landscaping such as grass, while in urban locations buffer can have tree wells. Buffer includes width needed for the curb.
 [4] Number of through lanes for thoroughfares are identified on the TDP Map.
 [5] Median for 2 lane option can be a two-way left turn lane if desired. No medians or center turn lanes are possible on minor collectors.
 [6] When combined with bike lanes parallel parking can be 8', but 9' is preferred if ROW permits.
 [7] For urban contexts, bike lanes can be 5' when combined with on-street parking, and 6' without adjacent on-street parking. Refer to Bike and Bike System Plan for additional details.
 [8] Along roadways where previously dedicated right-of-way (ROW) is wider than the current required ROW, additional ROW may be required to transition roadside elements (such as utilities) to the narrower roadway cross section.
 [9] 100' ROW is required only in specified instances; Eden Rd and Bowen Rd from Subject to Glendon Rd are the only thoroughfares designated as 100' (See TDP map for details).
 [*] Information on context zones (suburban, urban, and urban core) can be found on page 10 of the manual.



**PINEDALE CHAPTER
Community-Based Land-Use
Planning Committee**

**P. O. Box 3
Church Rock, NM 87311
Office: 505-786-2208
Fax: 505-786-2211**

BYLAWS

PREAMBLE

The Community-Based Land Use Planning Committee (CLUPC) is established to further the goals and objectives of Pinedale Chapter by finding and acquiring land for development, in order to improve the quality of life for community members.

ARTICLE 1: NAME AND LOCATION

Section 1 - Name:

The name of the organization is: Pinedale Community-Based Land Use Planning Committee.

Section 2 - Location:

The mailing address shall be: Community-Based Land Use Planning Committee
c/o Pinedale Chapter
P. O. Box 3
Church Rock, NM 87311

The e-mail address shall be: Pinedale@navajochapters.org

ARTICLE 2: AUTHORIZATION

Pinedale Community-Based Land Use Planning Committee (CLUPC) was established by majority vote of Chapter membership in accordance with Navajo Nation Code, Title 26, Local Governance Act of 1998, Section 2004, 3(a).

ARTICLE 3: PURPOSE

The Community-Based Land Use Planning Committee was formally established by Pinedale Resolution No. PDC-03-13-092, to research, classify, and prepare zoning districts; to outline and formulate land use plans; and to implement development of land and buildings without impacting habitat and environmental conservation policies.

ARTICLE 4: OBJECTIVES

The committee objectives are: (1) To study, compile, assemble, and consolidate documents and material to revise and produce a new land use plan; (2) To plan efficient and economical infrastructure; develop plans and withdraw lands for agriculture, economic development, and community and urban development. (3) Address unmet needs of the community for social mobility and raising the standard of living.

ARTICLE 5: MEMBERSHIP

Section 1 - Membership:

A member of Community-Based Land Use Planning Committee shall be a registered voting member of Pinedale. The member is required to own and operate a motor vehicle and have a valid driver's license. He or she shall not be currently under disciplinary review or probationary status for disciplinary reasons; and must have paid all necessary dues and conformed to the requirements as set forth in this bylaw. Because CLUPC requires a member's undivided dedication, intense concentration, and attention to CLUPC tasks, he or she may not be a fulltime employee of another organization as it conflicts with meeting schedules, work assignments, teamwork and deadlines. It also disrupts emergency and special meetings.

Section 2 - Documentation:

For CLUP Committee membership, interested individuals must submit a "Letter of Interest" to the Chapter for records and files. The records will be under strict confidence. "Section 2 – Documentation": is in keeping with "Section 1 – Membership": which says a fulltime employee's employment conflicts with or disrupts scheduling, assignments, teamwork, deadlines, emergency, and special meetings.

Section 3 - Contact:

Committee member addresses, telephone numbers, and e-mail Addresses shall be kept on file in the Office of the Community Services Coordinator for contact purposes. Each member shall keep their cell-phone numbers and email addresses up-to-date and inform fellow members of any changes. For fast and efficient communications, all members shall provide and maintain current phone numbers and e-mail addresses.

Section 4 - Good Standing:

All members shall be of good character and in good standing with the Chapter Officials, the community, and colleagues.

Section 5 - Work Conduct:

All members must connect one another with complementary skills in order to function cooperatively. Each member must conduct him/herself with an attitude of hard work and teamwork; exhibit good work ethics; be success-oriented, honest, and self-motivated.

ARTICLE 6: OFFICERS

Section 1 - Elected Officers:

To apply for CLUPC membership, all interested persons shall submit a "letter of Interest" to the Chapter. Committee members will be chosen by majority vote of Chapter constituents. Committee Officers shall be nominated and voted-on by CLUPC members. If a current active member chooses to continue Committee Membership, he or she must reapply with a new "Letter of Interest". The Officers shall consist of a President, Vice-President, and Secretary/Treasurer.

Section 2 - Eligibility:

All Chapter members in good standing are eligible to be nominated and elected as CLUPC committee members.

Section 3 - Nomination:

For majority rule and breaking a tie vote, an odd numbered committee membership is desirable for CLUPC.

Selection of new Land Use Planning Committee shall be conducted in the month of September. The newly selected members shall start on October one (1) following selection. Two months before selection, starting July 1 and ending on the deadline date of August 31, interested individuals may begin submitting "Letters of Interest". The list of interested applicants with an accompanying CLUPC Budget and a Budget Justification will be presented to the Chapter for approval by the community. The new committee members shall begin their duties on October 1, the start of a new Fiscal Year.

Section 4 - Term of Office:

Election of new CLUPC members shall occur every four (4) years. Each member serving a term of 4 years will begin on October 1. The out-going officers who vacate their duties and responsibilities will give all files, records, and property to their successors.

Section 5 - Voluntary Resignation:

A member of CLUPC may resign for any reason giving a date and reason for resignation in written form. The officers of the committee may consent without further action. Should an elected officer voluntarily vacate his/her position before his/her term expires, the Committee President shall fill the gap until the vacancy is filled. A new committee officer shall be elected within thirty (30) days after vacancy. If there is no candidate to fill the vacant position, the President may review the original applicant panel and approach the next qualified person on the list. If there's no consent, he or she will continue down the list until position is filled. If there are no interested applicants, the President may recommend a qualified community member. If the President appoints someone he or she deems qualified, the prospective member will be subject to ratification by Chapter membership. An officer may not otherwise hold more than one position within the organization.

Section 6 - Removal:

The CLUP Committee may also permit a resignation in lieu of removal from office. Members who fail without just cause to attend three consecutive Land Use Planning meetings, regardless of whether such meetings are regular or special meetings, shall be deemed to have abandoned their office. CLUPC may remove an elected officer for reasons deemed legitimate, or beyond their control. The removal should be supported by a two-thirds vote of the membership and documented.

ROTATION OF OFFICIAL POSITION(S): Service as a Land Use Planning Committee member is a privilege, not a right, the purpose of which is to assist the committee in conducting its business in an appropriate, orderly and efficient manner. Therefore, a decision that there is cause for change of a committee members' official position(s), due to failing to work with fellow board members, and not giving time and effort to work to ensure quality leadership, communication, and devotion to land use planning, shall be cause for removal of the injurious officer from their current position as holder of a committee office, and will be rotated to another position within the committee leadership by a majority vote of board members. A vote to rotate a committee officer shall only take place within the seats held by the officers at a regular meeting or executive session called for that purpose. "Cause" includes, but is not limited to, any conduct that:

1. Affects the administration of the office in a manner deemed to be harmful to Board operations;
2. Negatively and directly affects the rights and interests of Chapter membership, chapter staff, or Chapter officers;

The Committee members and the public will be notified of a planned meeting one (1) week in advance of the meeting. Notification shall be made by phone, radio, email, flyers, or word-of-mouth.

Section 3 - Chapter Usage:

As a matter of courtesy and because CLUP Committee is a Branch of the Chapter as community planners and liaison, costs for use of the Chapter House, tables, chairs, white board, restrooms, and kitchen is waived by Chapter Administration. Prior arrangements shall be made with Chapter Administration to use the Chapter House and to assign a janitor, or clean-up person, to clean the meeting room after the room is vacated.

Section 4 - Quorum:

1. Prior to conducting an official meeting, a quorum of 3 or more committee members, with voting rights, shall be present. If a quorum is not present, the meeting shall be cancelled and rescheduled, and all members notified.
2. Each meeting agenda shall be as follows:
 1. Meeting called to order
 2. Invocation
 3. Roll Call
 4. Recognition of Guests
 5. Review and Adopt agenda
 6. Reading of Minutes
 7. New Business
 8. Old Business
 9. Decisions/Assignments
 10. Announcements
 11. Next Meeting Date
 12. Adjournment

ARTICLE 9 - COMPENSATION

Section 1 - Compensation:

The Committee Officers may be compensated for their services by resolution of the Land Use Planning Committee for Chapter concurrence. A fixed sum of \$75 shall apply to each regular meeting, to be paid to each member who attends a meeting, votes on issues, and whose action has been recorded on the Minutes. A fixed sum of \$50 shall apply to each Special Meeting to be conducted only in the event of unforeseen circumstances which require immediate action. A letter or statement of justification shall accompany the request.

Section 2 - Compensation to Representative(s):

Representatives are individuals who are appointed by the President or chosen by two-thirds vote of Committee members, to perform a certain task or service for the CLUP Committee in the event the committee members are not available or unable to perform the duties/tasks delegated to the representative. The delegation of tasks shall be approved by two-thirds vote of the committee and shall be justified in writing by the committee President. A fixed sum of \$30 shall be paid to each representative for his/her service.

ARTICLE 10 - BUDGET

All books and records shall be kept current and complete for each meeting or reporting period by the Committee Secretary/Treasurer. All budget and finance records shall be subject to review and approval by the Chapter Administration, Chapter Officials, or any Department or individual having oversight of the CLUP Committee activities. An annual budget which lists all applicable stipends, research material, supplies, travel, and training as line items shall be submitted to the Chapter with attachments and a Resolution to be negotiated and approved.

ARTICLE 11 - AMENDMENTS

It is understood that these Bylaws will remain effective so long as it is agreed upon by Committee Members and all parties involved. An amendment may be incorporated as deemed necessary and recommended to the Pinedale Committee Members at a duly called regular or special meeting of the Community-Based Land Use Planning Committee. All amendments shall be reviewed by Pinedale Chapter Officials with Administrative personnel, or those who have oversight of land use planning committee.

ARTICLE 12 - CODE OF CONDUCT

The Pinedale Community-Based Land Use Planning Committee is formed to meet monthly to serve the Community of Pinedale and its constituents. The Committee is formed to assist with meeting the unmet needs of the community pertinent to land acquisition, infrastructure development, social and economic improvement, and community beautification. As members who carry-out these duties and responsibilities, it is incumbent on each Committee Member to be alcohol and drug-free; to be ready and willing to participate in all meetings and activities maturely and responsibly; to be positive, productive and constructive; and to exhibit professionalism to the highest degree at all levels and always. Any talk or act of disrespect will not be tolerated and shall be discouraged at all meetings, functions, or recreation.

ARTICLE 13 - DISSOLUTION

The Pinedale Community-Based Land Use Planning Community may be dissolved after all required duties, responsibilities, functions or any just cause deemed necessary. The committee may be dissolved by majority vote of Committee Members. Upon dissolution, all records, assets, liabilities, and obligations shall be distributed to Pinedale Chapter, who, in turn and by written mandate, will discharge them to those organizations deemed qualified under the Navajo Nation laws.

ARTICLE - CERTIFICATION

We hereby certify that these Bylaws were review, considered, and discussed at a duly called meeting of the Community Based Land Use Planning Committee membership, at which time a quorum was present and the same was passed by a vote of _____ members in favor; _____ opposed; and _____ abstained on this _____ day of _____, 2018.

Willie Norton, President

Joan Miller, Vice-President

Louise Mariano, Secretary/Treasurer

11 DISTRICT SERVICE PLAN

The Pinedale Chapter District Service Plan is a comprehensive plan addressing: Local rural addressing, regional district information and community-wide road network improvement.

This plan will be completed after CLUPC manual has been approved and certified. There have previous projects on compiling rural address data throughout the community. Attached is a 2010 Pinedale Chapter Rural Address worksheet as completed by former Pinedale Chapter CLUPC member Ruby Tsosie.



CONFIDENTIAL

PINEDALE CHAPTER RURAL ADDRESSING WORKSHEET FORM--2010

Name of Resident	Mailing Address	Telephone	RA or NHA#	Location	Structure Type	Description
Michael Davis	PO Box 937 Church Rock NM 87311	(505) 766-5377	352	5mi N of N-11-49 on Waterfalls Rd	Log Cabin Hogan	Light Brown Roof with Log bottom
* Tosie Charleston			391	4mi N of N-11-49 on Waterfalls Rd	Brick House	White and Red spots
Marie Joe	PO Box 1172 Church Rock NM 87311	(928) 871-2342	301	4mi N of N-11-49 on Waterfalls Rd	Brick House	White and Red spots
* Sam & Fannie Gray			368			
Cindy Begay	PO Box 849 Church Rock NM 87311		378	4mi N of N-11-49 on Waterfalls Rd	Hogan w/bathroom	Brown Roof and Stucco Gray
Clifton Davis	PO Box 1165 Church Rock NM 87311	(505) 567-8246	242A	3mi N of N-11-49 on Waterfalls Rd	Framed House	Green Roof
Evangelina Cadman	PO Box 1195 Church Rock NM 87311	(505) 979-8136	242B	3mi N of N-11-49 on Waterfalls Rd	Framed House	White and Light Yellow
Margaret Peterson	PO Box 1055 Church Rock NM 87311	(505) 713-6262	240	3mi N of N-11-49 on Waterfalls Rd	Framed House	Brown Roof and Brown House
Roger Lee & Pamela King	PO Box 1458 Church Rock NM 87311	(505) 879-4004		3mi N of N-11-49 on Waterfalls Rd	Framed House	Small Porch and Brown Board
Julia & Dan Betom	PO Box 5322 Gallup, NM 87301	(505) 879-2282	238A	3mi N of N-11-49 on Waterfalls Rd	Hay Shed	Uninhabitable
Julia & Dan Betom	PO Box 5322 Gallup, NM 87301	(505) 879-2282	238B	3mi N of N-11-49 on Waterfalls Rd	Hogan	Green Roof Stucco House
Julia & Dan Betom	PO Box 5322 Gallup, NM 87301	(505) 879-2282	238C	3mi N of N-11-49 on Waterfalls Rd	Hogan	Red Roof Light Yellow House
Julia & Dan Betom	PO Box 5322 Gallup, NM 87301	(505) 879-2282	238D	3mi N of N-11-49 on Waterfalls Rd	Framed House	White Roof Light Green House
Bessie Begay	PO Box 1172 Church Rock NM 87311	(505) 713-8898	236A	3mi N of N-11-49 on Waterfalls Rd	Framed House	White Roof Beige House
Shawn Begay	PO Box 183 Rehobeth, NM 87322	(505) 870-4709	236B	3mi N of N-11-49 on Waterfalls Rd	Dbi Wide Trailer	Light Brown Roof Light Brown House
Shawn Begay	PO Box 183 Rehobeth, NM 87322	(505) 870-4709		3mi N of N-11-49 on Waterfalls Rd	Hogan	Brown Roof Brown Hogan
Oliver & Orinda Charleston				3mi N of N-11-49 on Waterfalls Rd	Framed House	Light Blue House
Ella George	PO Box 84 Church Rock NM 87311		37A	2mi N of N-11-49 on Waterfalls Rd	Hay Shed	Gray Roof Plyboard Shed
Ella George	PO Box 84 Church Rock NM 87311		37B	2mi N of N-11-49 on Waterfalls Rd	Hogan	Green Roof Light Green House
David Livingston	PO Box 84 Church Rock NM 87311	(505) 786-7132	37C	2mi N of N-11-49 on Waterfalls Rd	Shed House	Shed
Mervin Leonard	PO Box 84 Church Rock NM 87311		37D	2mi N of N-11-49 on Waterfalls Rd	Hogan	Brown Roof Log Cabin
Ella George	PO Box 84 Church Rock NM 87311			2mi N of N-11-49 on Waterfalls Rd	NHA House	Brown Roof White House
Rena Livingston	PO Box 133 Church Rock NM 87311	(505) 406-6330	3A	1mi N of N-11-49 on Waterfalls Rd	Framed House	Gray Roof Gray House
Anita King	PO Box 133 Church Rock NM 87311	(505) 786-5505	3B	1mi N of N-11-49 on Waterfalls Rd	Hogan	White Roof Black Hogan
Donald King	PO Box 133 Church Rock NM 87311	(505) 786-7132	3C	1mi N of N-11-49 on Waterfalls Rd	Framed House	White Roof Beige Hogan
John & Fannie King	PO Box 133 Church Rock NM 87311	(505) 786-7132	3D	1mi N of N-11-49 on Waterfalls Rd	Framed House	Brown Roof Beige House
John & Fannie King	PO Box 133 Church Rock NM 87311	(505) 786-7132	3E	1mi N of N-11-49 on Waterfalls Rd	Shed House	Shed
Sam Gray Jr.	PO Box 392 Gallup, NM 87301		53A	500yds N Of N-11-49 N of Highway	Framed House	Brown Roof White House
Sam Gray Jr	PO Box 392 Gallup, NM 87301		53B	500yds N Of N-11-49 N of Highway	Old Church	White
Sam Gray Jr	PO Box 392 Gallup, NM 87301	(505) 786-5804	853C	500yds N Of N-11-49 N of Highway	Framed House	Brown Roof Pink House
Sam Gray Jr	PO Box 392 Gallup, NM 87301		53D	500yds N Of N-11-49 N of Highway	Dbie Wide Trailer	Brown Trailer
Sam Gray Jr	PO Box 392 Gallup, NM 87301		53E	500yds N Of N-11-49 N of Highway	Old Church	White-East Side
Joe Gray Sr	PO Box 122 Church Rock NM 87311	(505) 979-6501	853A	500yds N Of N-11-49 N of Highway	Framed House	Brown Roof White House
Joe Gray Sr	PO Box 122 Church Rock NM 87311	(505) 979-6501		500yds N Of N-11-49 N of Highway	Framed House	Gray Roof Beige House
Michael Begay,	PO Box 182 Church Rock NM 87311	(505) 786-2425	847	500yds N Of N-11-49 N of Highway	Single Wide Trailer	Gold Trailer with Porch
Robert & Emerson Luther	PO Box 2741 Gallup, NM 87301	(505) 567-9276		500yds N Of N-11-49 N of Highway	NHA House	Gray House
Robert & Emerson Luther	PO Box 2741 Gallup, NM 87301	(505) 567-9276	849	500yds N Of N-11-49 N of Highway	Single Wide Trailer	Single Wide Trailer
Jean & Ellison Gray	PO Box 66 Church Rock NM 87311	(505) 786-7769	855	.5mi N Of N-11-49 N of Highway	Framed House	Blue Metal Roof Light Blue house
Kinsey/Phoebe Barney	PO Box 503 Church Rock NM 87311	(505) 713-4468	851A	.5mi N Of N-11-49 N of Highway	Framed House	White Roof Light Green House
Kinsey/Phoebe Barney	PO Box 503 Church Rock NM 87311	(505) 713-4468	851B	.5mi N Of N-11-49 N of Highway	Framed House	White Roof Beige House
Kathy Touslin	PO Box		851C	.5mi N Of N-11-49 N of Highway	Framed House	Brown Roof White House
Otilinda Silago	PO Box 781 Church Rock NM 87311	(505) 713-1180	971	1mi N Of N-11-49 N of Highway	Framed House	Brown Roof Light Brown House
Rose Silago	PO Box 781 Church Rock NM 87311	(505) 713-1180		1mi N Of N-11-49 N of Highway	Dbie Wide Trailer	White Trailer
Shana Sam	PO Box 353 Church Rock NM 87311	(505) 786-5627	791	500yds N Of N-11-49 N of Highway	Dbie Wide Trailer	Gray Trailer
Betsy & Ronald Sam	PO Box 353 Church Rock NM 87311	(505) 786-5627	789	500yds N Of N-11-49 N of Highway	Dbie Wide Trailer	Purple Trailer
Betty Silago	PO Box 1064 Church Rock NM 87311	(505) 786-5231		500yds N Of N-11-49 N of Highway	Framed House	Green Roof Green House
Francis Silago	PO Box			500yds N Of N-11-49 N of Highway	Framed House	Brown Roof White House
Bennie Silago	PO Box 1286 Church Rock NM 87311	(505) 567-8198	787	500yds N Of N-11-49 N of Highway	Framed House	Brown Roof White House
Johnnie Thompson	PO Box	(505) 979-1083	691A	1mi Tse Nizhoni Road	Single Wide Trailer	Tan Trailer
Johnnie Thompson	PO Box	(505) 979-1083	691B	1mi Tse Nizhoni Road	Framed House	Green Roof Tan House
Johnnie Thompson	PO Box	(505) 979-1083	692	1mi Tse Nizhoni Road	NHA House	NHA House
Jimmie Zuni	PO Box 401 Fort Wingate, NM 87316	(505) 488-6428	693	1mi Tse Nizhoni Road	NHA House	Red Roof White House
Virgil Thompson	PO Box		693	1mi Tse Nizhoni Road	Framed House	Brown Roof White House
Priscilla Begay	PO Box 1014 Church Rock NM 87311	(575) 499-3494	617A	1/4mi E of PDC N of N-11-49	Framed House	White Roof Beige House



PO Box 1014	Church Rock NM 87311	(575) 499-3494	617B	1/4mi E of PDC N of N-11-50	Hogan	White Roof Brown House
PO Box 271	Church Rock NM 87311	(505) 786-5328	02B	1/4mi E of PDC on Rainbow Trail Rd	Framed House	Gray Roof Light Blue House
PO Box 292	Gallup, NM 87301	(505) 786-7890	22B	1/4mi E of PDC on Rainbow Trail Rd	Hogan	Light Green Roof Beige House
PO Box 292	Gallup, NM 87301	(505) 786-7890	22A	1/4mi E of PDC on Rainbow Trail Rd	Hogan	Brown Roof Gray Hogan
PO Box 6135	Gallup, NM 87301	(505) 786-7619	35	50yds S of PD Str Rainbow Trail Rd	NHA House	Gray House
PO Box 54	Church Rock NM 87311	(505) 786-4959	4B	1/4mi E of PDC on Rainbow Trail Rd	Double Wide Trailer	Gray Roof White Trailer
PO Box 962	Church Rock NM 87311	(505) 786-4953	4C	1/4mi E of PDC on Rainbow Trail Rd	Double Wide Trailer	Black Roof White House
PO Box 312	Church Rock NM 87311	(505) 862-6553	4A	12mi SE of PD Str Rainbow Trail Rd	Framed House	Lime Trailer
PO Box 312	Church Rock NM 87311	(505) 786-5854	4A	3/4mi S of PD Str Rainbow Trail Rd	Framed House	Pink House With Brown Trim
PO Box 2196	Gallup, NM 87301	(505) 786-5325	2D	3/4mi S of PD Str Rainbow Trail Rd	Single Wide Trailer	Gray Roof Black House
PO Box 4653	Gallup, NM 87301	(505) 979-0406	2	3/4mi S of PD Str Rainbow Trail Rd	Framed House	Green Trailer
PO Box 1191	Church Rock NM 87311					Brown Roof White House W/ Patio

WEST OF PINEDALE TRADING POST ON RAINBOW TRAIL ROAD

PO Box 1191	Church Rock NM 87311					
PO Box 1191	Church Rock NM 87311					
PO Box 351	Church Rock NM 87311	(505) 786-5827	17A	50yds SE of PD Str Rainbow Trail Rd	NHA House	Blue House
PO Box 351	Church Rock NM 87311	(505) 786-5827	19B	50yds SE of PD Str Rainbow Trail Rd	Single Wide Trailer	Brown Trailer Green Trimming
PO Box 1245	Church Rock NM 87311	(505) 786-5640	19A	50yds SE of PD Str Rainbow Trail Rd	Framed House	Tan House Maroon Trimming
PO Box 1200	Church Rock NM 87311	(505) 786-4979	19C	50yds SW of PD Str Rainbow Trail Rd	Framed House	Tan House Brown Trimming
PO Box 1013	Church Rock NM 87311	(505) 786-7618	19D	1/8mi W of PD Str Rainbow Trail Rd	Hogan	Red Roof Grey Stucco Hogan
PO Box 1154	Church Rock NM 87311	(505) 786-7431	17B	1/8mi W of PD Str Rainbow Trail Rd	Single Wide Trailer	White Trailer Brown Trimming
PO Box 843	Church Rock NM 87311	(505) 786-5827	7	1/8mi W of PD Str Rainbow Trail Rd	Framed House	Brown Roof Beige House
PO Box 843	Church Rock NM 87311	(505) 786-4912	7C	1/4mi N of PD Str Rainbow Trail Rd	Hogan	White Roof Grey Stucco
PO Box 970	Church Rock NM 87311	(505) 786-7986	73	1/4mi N of PD Str Rainbow Trail Rd	Framed House	White Roof Light Green House
PO Box 1169	Church Rock NM 87311	(505) 786-5402	73E	1/4mi N of Pinedale Chapter House	Framed House	Brown Roof Light Brown House
PO Box 1169	Church Rock NM 87311	(505) 862-6577	73F	1/4mi N of PD Str Rainbow Trail Rd	Framed House	Brown Roof White Stucco
PO Box 1169	Church Rock NM 87311	(505) 713-7430	73B	1/4mi N of PD Str Rainbow Trail Rd	NHA House	Blue House
PO Box 1169	Church Rock NM 87311	(505) 713-7430	73D	1/4mi N of PD Str Rainbow Trail Rd	Single Wide Trailer	White Trailer
PO Box 1169	Church Rock NM 87311	(505) 728-2094	73C	1/4mi N of Pinedale Chapter House	Framed House	Gray House

RAINBOW TRADING POST ON RAINBOW TRAIL ROAD

PO Box 1091	Church Rock NM 87311	(505) 786-9315	178E	3.5mi N of PD Str Rainbow Trail Rd	Single Wide Trailer	White Trailer Light Green Trimming
PO Box 322	Gallup, NM 87301	(505) 728-8672	178A	3.5mi N of PD Str Rainbow Trail Rd	Single Wide Trailer	White Trailer
PO Box 2281	Gallup, NM 87301	(505) 786-7790	178B	3.5mi N of PD Str Rainbow Trail Rd	Framed House	Brown Roof Lumber Board Shed
PO Box 3221	Gallup, NM 87301	(575) 586-1279	178C	3.5mi N of PD Str Rainbow Trail Rd	Framed House	Brown Roof Light Brown House
PO Box 183	Church Rock NM 87311	(505) 786-7117	178D	3.5mi N of PD Str Rainbow Trail Rd	Framed House	Brown Roof Beige House
PO Box 1368	Church Rock NM 87311	(505) 786-7117	178E	3.5mi N of PD Str Rainbow Trail Rd	Hogan	Brown Roof Ply Boards
PO Box 287	Church Rock NM 87311	(505) 786-5414	178F	3.5mi N of PD Str Rainbow Trail Rd	Hogan	Brown Roof Red and White Logs
PO Box 1392	Church Rock NM 87311		178G	3.5mi N of PD Str Rainbow Trail Rd	Hogan	Red Roof Gray Hogan
PO Box 1392	Church Rock NM 87311		178C	3.5mi N of PD Str Rainbow Trail Rd	Hogan	Brown Roof Gray Hogan
PO Box 911	Gallup, NM 87301		180	3.5mi N of PD Str Rainbow Trail Rd	Single Wide Trailer	White Trailer
PO Box 911	Gallup, NM 87301		172	2mi N of PD Str Rainbow Trail Rd	Framed House	Brown Roof Gray Stucco House
PO Box 1192	Church Rock NM 87311	(505) 786-5306	33C	2mi N of PD Str Rainbow Trail Rd	Hogan	Green Roof Black Hogan
PO Box 1192	Church Rock NM 87311	(505) 786-5306	174B	2mi N of PD Str Rainbow Trail Rd	Framed House	Red Roof Pink Hogan
PO Box 1394	Church Rock NM 87311	(505) 786-5306	174C	2mi N of PD Str Rainbow Trail Rd	Hogan	Red Roof Black Hogan
PO Box 852	Church Rock NM 87311	(505) 321-4795	174E	2mi N of PD Str Rainbow Trail Rd	Single Wide Trailer	Cream Colored Trailer Yellow Trim
PO Box 564	Church Rock NM 87311	(505) 567-9536	174B	1mi N of PD Str Rainbow Trail Rd	Framed House	Log Hogan Red Roof
PO Box 1020	Church Rock NM 87311	(505) 567-9536	174A	1mi N of PD Str Rainbow Trail Rd	Framed House	Brown Roof Gray Stucco House
PO Box 1231	Church Rock NM 87311	(505) 593-2722	174C	1mi N of PD Str Rainbow Trail Rd	Framed House	Brown Roof Beige House
PO Box 1231	Church Rock NM 87311	(505) 593-2722	174E	1mi N of PD Str Rainbow Trail Rd	Framed House	Brown Roof Yellow House
PO Box 1331	Church Rock NM 87311	(505) 480-9441	170	1mi N of PD Str Rainbow Trail Rd	Hogan	
PO Box 984	Church Rock NM 87311	(505) 979-3485	170B	1mi N of PD Str Rainbow Trail Rd	Hogan	Brown Stucco Gray Hogan
PO Box 1403	Thoreau, NM 86323	(505) 406-0781	146C	1mi N of PD Str Rainbow Trail Rd	Framed House	Brown Roof Pink House
PO Box 1149	Church Rock NM 87311	(505) 236-1064	146D	1.5mi N of PD Str Rainbow Trail Rd	Framed House	Light Brown Roof Ply Board House
PO Box 1214	Church Rock NM 87311	(505) 786-5446	146B	1.5mi N of PD Str Rainbow Trail Rd	Hogan	White Trailer Tan Trimming
PO Box 1045	Church Rock NM 87311	(505) 786-5446	146A	1.5mi N of PD Str Rainbow Trail Rd	Framed House	Brown Roof Beige Hogan
						Gray House with Blue Trimming

Tony B...	PO Box 1154 Church Rock NM 87311	(505) 726-3191	1.5mi N of PD Str Rainbow Trail Rd	Hogan	Light Brown Roof Brown Hogan
Rose...	PO Box 1154 Church Rock NM 87311	(505) 726-3191	1.5mi N of PD Str Rainbow Trail Rd	Hogan	Brown Roof Light Brown Hogan
Robert...	PO Box 103 Church Rock NM 87311	(505) 862-2181	1.5mi N of PD Str Rainbow Trail Rd	Framed House	
Sophio Becenti	PO Box 751 Church Rock NM 87311	(505) 726-4216	1.5mi N of PD Str Rainbow Trail Rd	Framed House	Brown Roof Gray Stucco Hogan
Harrison Becenti	PO Box 1175 Church Rock NM 87311	(505) 786-4216	1.5mi N of PD Str Rainbow Trail Rd	Single Wide Trailer	Brown Roof Light Green House
Clyde Beyal, Jr	PO Box 1180 Church Rock NM 87311	(505) 879-8870	1.5mi N of PD Str Rainbow Trail Rd	Framed House	White Trailer Brown Trimming
Harry Holtsoi	PO Box 519 Fort Wingate, NM 87316	(505) 906-2002	1.5mi N of PD Str Rainbow Trail Rd	Framed House	Brown Roof Peach House
Jones Holtsoi	PO Box 1180 Church Rock NM 87311	(505) 786-7324	1.5mi N of PD Str Rainbow Trail Rd	Framed House	House w/Graded Entry
Jones Begay	PO Box 656 Fort Wingate, NM 87316	(505) 786-7324	1.5mi N of PD Str Rainbow Trail Rd	Hogan	Small Hogan
Ruby Lynch & TJ Lewis	PO Box 1115 Fort Wingate, NM 87316	(505) 728-0354	1.5mi N of PD Str Rainbow Trail Rd	Framed House	(by Jones Begays House)
Wilbert Lynch	PO Box 1115 Fort Wingate, NM 87316	(505) 728-0354	1.5mi N of PD Str Rainbow Trail Rd	Hogan	Grey Roof Peach Bottom
Gloria Holtsoi	PO Box 2377 Gallup, NM 87301	(505) 862-2465	1.5mi N of PD Str Rainbow Trail Rd	Hogan	Lite Orange Hogan
Harold Harry	PO Box 1300 Church Rock NM 87311	(505) 786-7159	1.5mi N of PD Str Rainbow Trail Rd	Single Wide Trailer	Red Roof Pink House
Herrman Harry	PO Box 2791 Gallup, NM 87301	(505) 979-9026	1.5mi N of PD Str Rainbow Trail Rd	Single Wide Trailer	Beige Roof Brown Trimming
Kenneth & Louise Murrillo	PO Box 2791 Gallup, NM 87301	(505) 236-9873	1.5mi NW of PDC Rainbow Trail Rd	NHA House	White Trailer
Kenneth & Louise Murrillo	PO Box 2791 Gallup, NM 87301	(505) 786-7127	1.5mi NW of PDC Rainbow Trail Rd	Single Wide Trailer	Gray House
Karen Yazzie	PO Box 621 Church Rock NM 87311	(505) 786-7127	1.5mi NW of PDC Rainbow Trail Rd	Single Wide Trailer	Gray Roof Beige Trailer
Charlie Billie	PO Box 656 Fort Wingate, NM 87316	(505) 263-3134	1.5mi NW of PDC Rainbow Trail Rd	Framed House	Light Brown Roof Light Yellow House
Charlie Billie	PO Box 656 Fort Wingate, NM 87316	(505) 862-3406	1.5mi NW of PDC Rainbow Trail Rd	Hogan	Brown Roof Light Brown Hogan
Elaine Begay/Nelson Martin	PO Box 4926 Gallup, NM 87301	(505) 862-3406	1.5mi NW of PDC Rainbow Trail Rd	Framed House	Brown Roof Light Brown Hogan
Leon Enrique	PO Box 1465 Church Rock NM 87311	(505) 979-1099	1.5mi NW of PDC Rainbow Trail Rd	Hogan	Light Brown Roof Light Yellow House
Nathan Lynch	PO Box 547 Church Rock NM 87311	(505) 786-7127	1.5mi NW of PDC Rainbow Trail Rd	Framed House	Brown Roof Light Brown Hogan
Lynette Lynch	PO Box 547 Church Rock NM 87311	(505) 786-7127	1.5mi NW of PDC Rainbow Trail Rd	Hogan	Light Brown Roof Light Yellow House
Paul Martin Sr.	PO Box 433 Church Rock NM 87311	(505) 409-6522	1.5mi NW of PDC Rainbow Trail Rd	Framed House	White Trailer
Lorraine Martin	PO Box 433 Church Rock NM 87311	(505) 409-6522	1.5mi NW of PDC Rainbow Trail Rd	Hogan	White Trailer Brown Trimming
Roger Smith	PO Box 746 Church Rock NM 87311	(505) 409-6522	1.5mi NW of PDC Rainbow Trail Rd	Single Wide Trailer	White Trailer
Kee & Aninda Keyanna	PO Box 561 Church Rock NM 87311	(505) 488-8242	2.4mi N on Lobo Valley Road	Framed House	Brown Roof Ply Board Bottom
Murphy/Martin	PO Box 252 Church Rock NM 87311	(505) 979-0321	2.5mi N on Lobo Valley Road	Framed House	Brown Roof Peach House
Herman & Frank Martin	PO Box 1330 Church Rock NM 87311	(505) 979-6789	2.5mi N on Lobo Valley Road	Single Wide Trailer	Gray Trailer
Murphy/Martin	PO Box 252 Church Rock NM 87311	(505) 979-0321	2.5mi N on Lobo Valley Road	Hogan	Brown Roof Log Ceremonial Hogan
Dennis Becenti/Pam George	PO Box 1258 Church Rock NM 87311	(505) 979-0321	2.5mi N on Lobo Valley Road	Hogan	Brown Roof Beige Hogan w/Addition
Lucinda Martin	PO Box 5174 Gallup, NM 87301	(505) 409-6522	2.5mi N on Lobo Valley Road	Framed House	
Comelia Becenti	PO Box		2.5mi N on Lobo Valley Road	Framed House	
Rocky Dougi	PO Box 1174 Church Rock NM 87311	(505) 979-1099	2mi NW on Lobo Valley Road	Framed House	
Jimson Martin	PO Box 1181 Church Rock NM 87311	(505) 979-1099	2mi NW on Lobo Valley Road	Framed House	
Morris/Virginia Tso	PO Box 1222 Church Rock NM 87311	(505) 870-9398	2mi NW on Lobo Valley Road	Framed House	
Jasper & Ina Livingston	PO Box 25 Church Rock NM 87311	(505) 870-9398	1.5mi NW on Lobo Valley Road	Framed House	Light Brown Roof Light Yellow House
Rachael Manyoats	PO Box 724 Church Rock NM 87311	(505) 979-9035	1.5mi NW on Lobo Valley Road	Framed House	White House
Junie & Andy Begay	PO Box 602 Church Rock NM 87311	(505) 876-7149	1.5mi NW on Lobo Valley Road	Hogan	Red Roof Red Hogan
Junie & Andy Begay	PO Box 951 Church Rock NM 87311	(505) 876-7149	1.5mi NW on Lobo Valley Road	Hogan	
Julianseita Morgan	PO Box 951 Church Rock NM 87311	(505) 862-4779	1.5mi NW on Lobo Valley Road	Single Wide Trailer	Gray Trailer
Ruby Tsose	PO Box 1256 Church Rock NM 87311	(505) 862-3513	1.5mi NW on Lobo Valley Road	Framed House	Brown Roof Ply Boarded House
Leulinda Tom	PO Box 1044 Church Rock NM 87311	(505) 862-3513	1.5mi NW on Lobo Valley Road	Single Wide Trailer	White Trailer Blue Trimming
Lewis Largo, Jr	PO Box 936 Church Rock NM 87311	(505) 979-2983	1.5mi NW on Lobo Valley Road	Framed House	Black Roof Beige House
Ronald Tom	PO Box 1387 Church Rock NM 87311	(505) 567-8226	1.5mi NW on Lobo Valley Road	Framed House	Brown Roof Beige House
Evelyn Mann	PO Box 1086 Church Rock NM 87311	(505) 879-7228	1.5mi NW on Lobo Valley Road	Framed House	White House
Evelyn Lee	PO Box 4968 Gallup, NM 87301	(505) 879-7228	1.5mi NW on Lobo Valley Road	Hogan	Beige Hogan
Ramona Lee	PO Box 1402 Church Rock NM 87311	(505) 979-9935	1.5mi NW on Lobo Valley Road	hogan	Beige Hogan
Francita Becenti	PO Box 424 Church Rock NM 87311	(505) 728-6955	1.5mi NW on Lobo Valley Road	Framed House	Brown Roof Green Hogan
James Antonio	PO Box 1238 Church Rock NM 87311	(505) 713-1245	1.5mi NW on Lobo Valley Road	Framed House	Brown Roof Peach House
William/Rita Hubbard	PO Box 436 Church Rock NM 87311	(505) 728-5395	1.5mi NW on Lobo Valley Road	Single Wide Trailer	White Trailer
William/Rita Hubbard	PO Box 436 Church Rock NM 87311	(505) 728-5395	1.5mi NW on Lobo Valley Road	White Trailer	White Trailer
Melissa Teiler	PO Box 822 Church Rock NM 87311	(505) 728-5395	1.5mi NW on Lobo Valley Road	Framed House	Old House--Vacant
Tonita Lee	PO Box 822 Church Rock NM 87311	(505) 728-5395	1.5mi NW on Lobo Valley Road	Single Wide Trailer	Yellow Trailer
Katherine Jim	PO Box 1041 Church Rock NM 87311	(505) 979-2183	1.5mi NW on Lobo Valley Road	Framed House	Gray House
Tully Lee	PO Box 896 Church Rock NM 87311	(505) 713-9776	1.5mi NW on Lobo Valley Road	Framed House	Pink House With Brown Trim
Louise Jackson	PO Box 1091 Church Rock NM 87311	(505) 713-6490	1.25mi NW on Lobo Valley Road	Framed House	Brown Roof Yellow House
Nelson Charley	PO Box 1091 Church Rock NM 87311	(505) 713-6490	1.25mi NW on Lobo Valley Road	Single Wide Trailer	Silver Roof Gray Trailer
Marcella Tosie	PO Box 1128 Church Rock NM 87311	(505) 713-6061	1.25mi NW on Lobo Valley Road	Hogan	Brown Roof Beige Hogan
Bertha Goldtooth	PO Box 1091 Church Rock NM 87311	(505) 713-8726	1.25mi NW on Lobo Valley Road	Framed House	White Roof Peach House
Matilda Charley	PO Box 1091 Church Rock NM 87311	(505) 597-8084	1.25mi NW on Lobo Valley Road	Framed House	Red Roof Red House
				Framed House	Brown Roof Ply Board Hogan

BOBAYALEXANDER

Steven Tomlin	Marie Charley	PO Box 1091	Church Rock NM 87311	(505) 597-8084	95C	1.25mi NW on Lobo Valley Road	Framed House	Light Green Roof White House
Veronica	Jim Tor	PO Box 891	Church Rock NM 87311	(505) 979-2098	95D	1.25mi NW on Lobo Valley Road	Single Wide Trailer	Gray Trailer
Theodore Livingston		PO Box 1000	Church Rock NM 87311	(505) 728-8031	65A	1.25mi NW on Lobo Valley Road	Framed House	Brown Roof Light Green House
Theodore Livingston		PO Box 1130	Church Rock NM 87311	(505) 979-0900	57	1.25mi NW on Lobo Valley Road	Framed House	Dark Brown Roof Beige House
Theodore Livingston		PO Box 1130	Church Rock NM 87311	(505) 979-0900	57B	1.25mi NW on Lobo Valley Road		
*Robert Livingston		PO Box	Church Rock NM 87311	(505) 979-0900	57C	1.25mi NW on Lobo Valley Road		
Allison Livingston		PO Box 1171	Church Rock NM 87311	(505) 786-7842	59A	1.25mi NW on Lobo Valley Road	Single Wide Trailer	White Trailer
Tommy/Marylou Manygoats		PO Box 1171	Church Rock NM 87311	(505) 786-7842	59B	1.25mi NW on Lobo Valley Road	Framed House	Brown Roof Ply Board House
Fabian/Joanie Manygoats		PO Box	Church Rock NM 87311	(505) 786-5665		1.25mi NW on Lobo Valley Road	Framed House	Brown Roof Peach House
Ben & Inez Morgan		PO Box 726	Church Rock NM 87311	(505) 786-5016	28A	1mi W on Lobo Valley Road	Single Wide Trailer	White Trailer
Ben & Inez Morgan		PO Box 726	Church Rock NM 87311	(505) 786-5016	28B	1mi W on Lobo Valley Road	Framed House	Gray Roof Beige House
Stephen/Kathleen King		PO Box 839	Church Rock NM 87311	(505) 786-7698	12	1mi W on Lobo Valley Road	Hogan	Red Roof Light Brown Hogan
Joe Louie		PO Box 839	Church Rock NM 87311	(505) 879-8340	4	1mi W on Lobo Valley Road	Framed House	Brown Roof Green Hogan
							Single Wide Trailer	White Trailer Peach Trimming

NORTH SECOND AVENUE

Doris A. Begay		PO Box 987	Church Rock NM 87311	(505) 728-5493	391A	5mi N of N11-49 Highway	Framed House	Brown Roof Gray Stucco Hogan
Mattida Begay		PO Box 6078	Gallup, NM 87301	(505) 728-5493	391B	.5mi N of N11-49 Highway	Hogan	Brown Roof Gray Stucco Hogan
Dennison Begay		PO Box		(505) 240-7771	393B	.5mi N of N11-49 Highway	Hogan	Green Roof Gray Stucco Hogan
Phillip Livingston		PO Box 395	Church Rock NM 87311	(505) 906-2084	393C	.5mi N of N11-49 Highway	Framed House	Brown Roof Beige House
Bennie Begay		PO Box 1145	Church Rock NM 87311	(505) 979-0009	349C	2.5mi W of Pinedale Chapter House	Framed House	Vanilla House w/ Brown Trimming Ramp
Shirley Mae Becenti		PO Box 1252	Church Rock NM 87311	(505) 379-8008	351A	2.5mi W of Pinedale Chapter House	Framed House	Green Roof Brown Stucco House
Francis Price		PO Box 1252	Church Rock NM 87311	(505) 379-8008	351A	2.5mi W of Pinedale Chapter House	Hogan	Brown Roof Brown Hogan
Roger Becenti		PO Box 1252	Church Rock NM 87311	(505) 879-4403	351B	2.5mi W of Pinedale Chapter House	Hogan	Red Roof Brown Hogan
Roger Becenti		PO Box 604	Gallup, NM 87301	(505) 879-4403	351C	2.5mi W of Pinedale Chapter House	Hogan	Red Roof Brown Hogan
Vera Jones		PO Box		(505) 701-1212	349A	2.5mi W of Pinedale Chapter House	Single Wide Trailer	Blue Light Blue Trailer
Melba Becenti		PO Box		(505) 701-1212	8	2.5mi W of Pinedale Chapter House	NHA House	Brown Roof Brown House
Melba Becenti		PO Box		(505) 701-1212	321 A	2.5mi W of Pinedale Chapter House	Framed House	Brown Roof Peach House
Joanne Becenti		PO Box 366	Church Rock NM 87311	(505) 701-1212	321B	2.5mi W of Pinedale Chapter House	Framed House	Gray Roof Gray House
Joanne Becenti		PO Box 366	Church Rock NM 87311	(505) 701-1212	321C	2.5mi W of Pinedale Chapter House	Framed House	Brown Roof Brown House
Joanne Becenti		PO Box 366	Church Rock NM 87311	(505) 701-1212	321C	2.5mi W of Pinedale Chapter House	Framed House	Brown Roof Brown House
Mable Elstiffy		PO Box		(505) 879-1558	317A	2.5mi W of Pinedale Chapter House	Framed House	Brown Roof Yellow House
Patrick Begay		PO Box 1313	Church Rock NM 87311	(505) 879-1558	317B	2.5mi W of Pinedale Chapter House	Framed House	Red Roof Beige House

NORTH 1ST AVENUE

Annie Grey		PO Box 438	Church Rock NM 87311	(505) 567-8158	199	3mi W of Pinedale Chapter House	Framed House	Brown Roof Peach House w/Porch
Darlene Grey		PO Box 450	Church Rock NM 87311	(505) 567-8158	201A	3mi W of Pinedale Chapter House	Framed House	Brown Roof Black/Gray Plyboard House
Darlene Grey		PO Box 450	Church Rock NM 87311	(505) 567-8158	201B	3mi W of Pinedale Chapter House	Hogan	Brown Roof Red Hogan Stone Fndation
Darlene Grey		PO Box 450	Church Rock NM 87311	(505) 567-8158	201B	3mi W of Pinedale Chapter House	Framed House	Green Roof Gray Stucco House
Nellie Thompson		PO Box 1291	Church Rock NM 87311	(505) 879-1558	197	3mi W of Pinedale Chapter House	Hogan	Gray Roof Brown Stucco Hogan
Lagina Thompson		PO Box 1291	Church Rock NM 87311	(505) 879-1558	197	3mi W of Pinedale Chapter House	Single Wide Trailer	Brown Trailer White Trimming w/Porch
Erik Grey		PO Box 1263	Church Rock NM 87311	(505) 726-3036	195	3mi W of Pinedale Chapter House	Framed House	Green Roof Brown House
Timothy Thompson		PO Box 4441	Gallup, NM 87301	(505) 726-3036		3mi W of Pinedale Chapter House	Framed House	Brown Roof Beige House w/Patio
Roy Edison, Sr		PO Box 901	Church Rock NM 87311	(505) 879-1558	101A	3.5mi W of Pinedale Chapter House	Single Wide Trailer	Vanilla Trailer Grey Roof
Roy Edison, Sr		PO Box 901	Church Rock NM 87311	(505) 879-1558	101B	3.5mi W of Pinedale Chapter House	Framed House	Gray Roof Gray House

RED WATER POND ROAD

Dennette Largo		PO Box 723	Church Rock NM 87311	(505) 870-5748	19A	3.5mi W of Pinedale Chapter House	Framed House	Gray Roof Faded Purple 2 Story House
Devin Largo		PO Box 686	Church Rock NM 87311	(505) 870-9989	19B	3.5mi W of Pinedale Chapter House	Single Wide Trailer	White Trailer
Daniel & Betty Largo		PO Box 154	Church Rock NM 87311	(505) 862-1106	19C	3.5mi W of Pinedale Chapter House	Hogan	Gray Roof Gray Hogan
Francis Largo		PO Box 872	Church Rock NM 87311	(505) 713-6379	917	3.5mi W of Pinedale Chapter House	Hogan	Gray Stucco Hogan w/ 2 Additions
Francis Largo		PO Box 872	Church Rock NM 87311	(505) 713-6379	910B	3.5mi W of Pinedale Chapter House	Framed House	Gray Roof Plyboard House
Francis Largo		PO Box 872	Church Rock NM 87311	(505) 905-4510	910C	3.5mi W of Pinedale Chapter House	Framed House	Green Roof Stucco House BR Addition
Gary Largo, Sr		PO Box 367	Church Rock NM 87311	(505) 905-4510	912A	3.5mi W of Pinedale Chapter House	Framed House	Brown Roof Plyboard House
Galvison Largo		PO Box 367	Church Rock NM 87311	(505) 905-4510	912B	3.5mi W of Pinedale Chapter House	Hogan	Orange Hogan
Gary Largo, Sr		PO Box 367	Church Rock NM 87311	(505) 905-4510	912C	3.5mi W of Pinedale Chapter House	Framed House	Brown Roof Gray Stucco House
Ned Yazzie		PO Box 986	Church Rock NM 87311	(505) 905-7961	909	4mi NW of Pinedale Chapter House	Framed House	Brown Roof Gray Stucco House
Ned Yazzie		PO Box 986	Church Rock NM 87311	(505) 905-7961	909	4mi NW of Pinedale Chapter House	hogan	Red Roof Black Hogan
Lisa & Larry Benally		PO Box 477	Church Rock NM 87311	(505) 905-0010	911A	4mi NW of Pinedale Chapter House	Hogan	Red Roof Beige Hogan
Tommy & Maggie Nachin		PO Box 163	Church Rock NM 87311	(505) 905-0010	911B	4mi NW of Pinedale Chapter House	Single Wide Trailer	White Trailer
*Jerry Nachin		PO Box		(505) 905-0010		4mi NW of Pinedale Chapter House	Single Wide Trailer	Gray Roof Light Blue Trailer
Eugene Joe		PO Box 734	Church Rock NM 87311	(505) 905-0010		4mi NW of Pinedale Chapter House	Framed House	Gray Roof Light Blue House
Judy King		PO Box		(505) 905-0010	54	4mi NW of Pinedale Chapter House	Framed House	Gray House
Cecelia B Arviso		PO Box 36	Church Rock NM 87311	(505) 905-0010		4mi NW of Pinedale Chapter House	Framed House	White Roof Beige House

Marie Johnson	PO Box	(505) 979-3053	60D	1/2mi	Old Church Rock Mine Road	Single Wide Trailer	Trailer with Porch Tree in Front
Jimmie	PO Box		60B	1/2mi	Old Church Rock Mine Road	Framed House	Red House w/Fence around it
	PO Box		62A		Old Church Rock Mine Road	Framed House	Red Roof Gray House
Andrew Begay/Lavem James	PO Box		62B		Old Church Rock Mine Road		
Andrew Begay/Lavem James	PO Box		64	1mi	Old Church Rock Mine Road	Framed House	White Roof Gray Stucco House
Louise James	PO Box		64C	1mi	Old Church Rock Mine Road		
Sally Henry/Regina Gray	PO Box	(505) 713-8633	64D	1mi	Old Church Rock Mine Road	Hogan	White Roof White Hogan
Valrene Chee	PO Box	(505) 908-4275	84A	1mi	Old Church Rock Mine Road	Hogan	Brown Roof Beige Hogan Brown Trim
Sally Gray	PO Box		86	1mi	Old Church Rock Mine Road	Framed House	Green Roof Beige House
Sally Gray	PO Box		100A	1mi	Old Church Rock Mine Road	Framed House	Pink House With White Trim
Sarah Manning	PO Box	(505) 879-0323	100B	1mi	Old Church Rock Mine Road	Framed House	Red Roof Pink House
Nancy Benally	PO Box		100D	1mi	Old Church Rock Mine Road	Framed House	Black Roof Yellow/Gray House
Beatrice Hood	PO Box	(505) 862-2008	100E	1mi	Old Church Rock Mine Road	Framed House	Brown Roof Maroon House
Charmaine Thomas	PO Box		102A	1mi	Old Church Rock Mine Road	Framed House	Green Roof Gray House
Phyllis Manuelito	PO Box	(623) 521-8984	102B	1mi	Old Church Rock Mine Road	Framed House	White Roof Dark Blue House
	PO Box		102C	1mi	Old Church Rock Mine Road	Hogan	Gray Roof Beige Hogan
	PO Box		106	1mi	Old Church Rock Mine Road	Framed House	Brown Roof Gray House

FIRST CANYON

Lucinda Garcia	PO Box	(505) 409-0983	23		First Canyon Road	Single Wide Trailer	White Roof Blue Trailer
Zita Touchin	PO Box	(505) 236-9120			First Canyon Road	Single Wide Trailer	Tan Roof White Trailer
Edith Irving	PO Box				First Canyon Road	Hogan	White Roof White Hogan
Dan Chee	PO Box	(505) 870-0138	106		First Canyon Road	Framed House	Brown Roof Yellow House
Lily Norton	PO Box	(505) 870-9110	101		First Canyon Road	Framed House	Brown Roof Red House
Rosemary Gray	PO Box	(505) 862-3217	99B		First Canyon Road	Framed House	Green Roof Green House
Delbert Gray	PO Box				First Canyon Road	Single Wide Trailer	White Roof White House
Anita Pete	PO Box		102		First Canyon Road	Framed House	White Roof Rust House
Christina Yazzie	PO Box	(505) 879-0279	126		First Canyon Road	Framed House	Brown Roof Gray House
Julia Baloo	PO Box		88C		First Canyon Road	Framed House	Brown Roof Black House
*Perry John	PO Box		88A		First Canyon Road	NHA House	White Roof Gray House
Larry John	PO Box		88B		First Canyon Road	NHA House	Brown Roof Yellow House
Randy Chee	PO Box				First Canyon Road	Single Wide Trailer	Silver Roof White Trailer
Holly Gray	PO Box				First Canyon Road	Single Wide Trailer	White Roof Brown White Trailer
Ophelia Gray	PO Box	(505) 862-3217	90		First Canyon Road	Framed House	Brown Roof Orange Trailer
Archie Tsosie	PO Box	(505) 863-4369	68A		First Canyon Road	Hogan	Green Roof
Archie Tsosie	PO Box	(505) 863-4369	68B		First Canyon Road	Hogan	Brown Roof Gray Hogan
Alexander Tsosie	PO Box	(505) 863-4369	68C		First Canyon Road	Framed House	Brown Roof Gray House
Annie Edison	PO Box		26		First Canyon Road	Framed House	Brown Roof Pink House

SOUTH OF N11-49

Kathy Jaye	PO Box	(505) 979-8355	120C	1/4mi	S of Hwy N11-49	Framed House	Brown Roof Brown House
Kathy Jaye	PO Box	(505) 979-8355	250A	1/4mi	S of Hwy N11-49	Hogan	Black Roof Gray House
Kathy Jaye	PO Box	(505) 979-8355	250B	1/4mi	S of Hwy N11-49	Framed House	Green Roof Gray House
Roger Irving	PO Box		360B	1/2mi	S of Hwy N11-49	Single Wide Trailer	Silver Roof White Trailer
Roger Irving	PO Box		360E	1/2mi	S of Hwy N11-49	Single Wide Trailer	Silver Roof White Trailer
Roger Irving	PO Box		360A	1/2mi	S of Hwy N11-49	Hogan	White Roof Red Hogan
Louise Yazzie	PO Box		360C	1/2mi	S of Hwy N11-49	Single Wide Trailer	White Roof Beige Trailer
Grace Ann Begay	PO Box		350B	1/2mi	S of Hwy N11-49	Hogan	Brown Roof Green Stucco Hogan
Maggie Begay	PO Box		350A	1/2mi	S of Hwy N11-49	Framed House	Brown Roof Yellow Cream House
Darlene Begay	PO Box		280A	1/2mi	S of Hwy N11-49	Framed House	Brown Roof Cream House
Kenneth Jones	PO Box		280B	1/2mi	S of Hwy N11-49	Single Wide Trailer	Silver Roof White Trailer
Mimi Begay	PO Box		280E	1/2mi	S of Hwy N11-49	Framed House	Gray Roof Green House
Jasper White	PO Box		300C	1/4mi	S of Hwy N11-49	Single Wide Trailer	Silver Roof Beige Trailer
Lucille Charley	PO Box		302B	1/4mi	S of Hwy N11-49	Single Wide Trailer	Silver Roof Beige Trailer
Lucille Charley	PO Box		304	1/4mi	S of Hwy N11-49	Hogan	Green Roof Gray Hogan
Virgil White	PO Box		302A	1/4mi	S of Hwy N11-49	Single Wide Trailer	Blue Roof Gray Trailer
Tom White, Jr	PO Box		300D	1/4mi	S of Hwy N11-49	Hogan	Brown Roof Gray Hogan
Richard White	PO Box		300A	1/4mi	S of Hwy N11-49	Framed House	Brown Roof Cream House
Tom/Lorraine White	PO Box		300B	1/4mi	S of Hwy N11-49	Framed House	Brown Roof Light Yellow House
Raymond Charley	PO Box		300E	1/4mi	S of Hwy N11-49	Framed House	Brown Roof Brown House
Lorinda Henio	PO Box			1/4mi	S of Hwy N11-49	Single Wide Trailer	Silver Roof Beige Trailer
Antionette Largo	PO Box			1/4mi	S of Hwy N11-49	Hogan	Red Roof Beige House
Howard Largo	PO Box			1/4mi	S of Hwy N11-49	Framed House	Brown Roof Pinkish House
Clifford Manano	PO Box		90A	1 1/2mi	Midget Mesa Road	Framed House	Brown Roof Gray Two Story House

MIDGET MESA AND SECOND CANYON ROAD

PO Box	Jones Ranch	98	1/2mi Midget Mesa Road	Framed House	White Roof Rust House
PO Box	863 Crownpoint NM 87313	94	1/2mi Midget Mesa Road	Framed House	
PO Box	863 Crownpoint NM 87313		1 1/2mi Midget Mesa Road	Hogan	Brown Roof Log Hogan
PO Box	1961 Gallup, NM 87301	88B	1 1/2mi Midget Mesa Road	Hogan	Brown Roof Beige House
PO Box	1961 Gallup, NM 87301	112	1 1/2mi Midget Mesa Road	Hogan	Green Roof Hogan
PO Box	277 Church Rock NM 87311	78C	1 1/2mi Midget Mesa Road	Framed House	White Roof White House
PO Box	1168 Church Rock NM 87311	78A	1 1/2mi Midget Mesa Road	Framed House	White Roof Green House
PO Box	1153 Church Rock NM 87311	78B	1 1/2mi Midget Mesa Road	Framed House	Brown Roof Cream Stucco House
PO Box	1114 Church Rock NM 87311	61A	1mi Midget Mesa Road	Framed House	Brown Roof Cream Stucco House
PO Box	1287 Church Rock NM 87311	59	1mi Midget Mesa Road	Framed House	Brown Roof Gray Stucco House
PO Box	988 Church Rock NM 87311	61B	1mi Midget Mesa Road	Framed House	Brown Roof Gray Stucco House
PO Box	1234 Church Rock NM 87311	59C	1mi Midget Mesa Road	Framed House	Tan Roof Gray Stucco House
PO Box	1234 Church Rock NM 87311	57	1mi Midget Mesa Road	Framed House	Brown Roof Black House
PO Box	4857 Gallup, NM 87301	60C	1mi Midget Mesa Road	Framed House	Red Roof Gray House
PO Box	2935 Gallup, NM 87301	60B	1mi Midget Mesa Road	Single Wide Trailer	White Roof White Trailer
PO Box	2935 Gallup, NM 87301	60A	1mi Midget Mesa Road	Hogan	Gray Roof Gray House
PO Box	577 Church Rock NM 87311	62A	1mi Midget Mesa Road	Hogan	Light Brown Roof Cream Stucco House
PO Box	222 Gallup, NM 87301	64B	1mi Midget Mesa Road	Framed House	Brown Roof Gray Stucco House
PO Box	4857 Gallup, NM 87301	58A	1mi Midget Mesa Road	Framed House	White Roof Gray House
PO Box	2935 Gallup, NM 87301	38E	1mi Midget Mesa Road	Hogan	Green Roof
PO Box	2935 Gallup, NM 87301	38A	1mi Midget Mesa Road	Framed House	Green Roof Black House
PO Box	577 Church Rock NM 87311	38B	1mi Midget Mesa Road	Framed House	Green Roof Blue Stucco House
PO Box	Thoreau, NM 86323	36	1mi Midget Mesa Road		
PO Box	Thoreau, NM 86323		1mi Midget Mesa Road		
PO Box	Gallup, NM 87301	15	1mi Midget Mesa Road		
PO Box	1961 Gallup, NM 87301		1mi Midget Mesa Road		
PO Box	877 Church Rock NM 87311	214D	2.5mi Second Canyon Road	Framed House	White Roof Gray Stucco House
PO Box	2955 Church Rock NM 87311	222E	2.5mi Second Canyon Road	Framed House	Brown Roof Gray House
PO Box	2955 Church Rock NM 87311		2.5mi Second Canyon Road	Hogan	Brown Roof Black House
PO Box	2955 Church Rock NM 87311	214A	2.5mi Second Canyon Road	Framed House	Brown Roof Gray Hogan
PO Box	211 Church Rock NM 87311	212E	2.5mi Second Canyon Road	Framed House	Brown Roof Gray House
PO Box	274 Church Rock NM 87311	212A	2.5mi Second Canyon Road	Hogan	Green Roof Gray Hogan
PO Box	1397 Church Rock NM 87311	212B	2.5mi Second Canyon Road	Single Wide Trailer	White Roof White Trailer
PO Box	211 Church Rock NM 87311	212D	2.5mi Second Canyon Road	Single Wide Trailer	Silver Roof White Trailer
PO Box	2972 Gallup, NM 87301	222A	2.5mi Second Canyon Road	Framed House	Brown Roof Gray House
PO Box	2972 Gallup, NM 87301	220C	2.5mi Second Canyon Road	Framed House	Brown Roof Gray House
PO Box	2972 Gallup, NM 87301		2.5mi Second Canyon Road	Single Wide Trailer	White Roof Green Trailer
PO Box	2972 Gallup, NM 87301	222D	2.5mi Second Canyon Road	Single Wide Trailer	Brown Roof Light Green Trailer
PO Box	853 Church Rock NM 87311	222B	2.5mi Second Canyon Road	Single Wide Trailer	Brown Roof Yellow Trailer
PO Box	5046 Gallup, NM 87301		2.5mi Second Canyon Road	Framed House	Green Roof Pink House
PO Box	877 Church Rock NM 87311	220B	2.5mi Second Canyon Road	Framed House	White Roof Green Stucco House
PO Box	730 Church Rock NM 87311	216B	2.5mi Second Canyon Road	Hogan	Green Roof Green House
PO Box	730 Church Rock NM 87311	216A	2.5mi Second Canyon Road	Hogan	Green Roof Tan Hogan
PO Box	730 Church Rock NM 87311	216C	2.5mi Second Canyon Road	Framed House	Green Roof Rust House
PO Box		218A	2.5mi Second Canyon Road	Framed House	Green Roof Rust House
PO Box		218C	2.5mi Second Canyon Road	Framed House	Brown Roof Rust House
PO Box		218B	2.5mi Second Canyon Road	Framed House	Brown Roof Turquoise House
PO Box	171 Church Rock NM 87311	233B	2.75mi Second Canyon Road	Hogan	White Roof Tan Hogan
PO Box	171 Church Rock NM 87311	234A	2.75mi Second Canyon Road	Framed House	Black Roof Gray Stucco House
PO Box	1253 Church Rock NM 87311	233E	2.75mi Second Canyon Road	Framed House	White Roof Gray House
PO Box	171 Church Rock NM 87311	233D	2.75mi Second Canyon Road	Framed House	Brown Roof Beige House
PO Box	2 Church Rock NM 87311	239A	2.75mi Second Canyon Road	Framed House	Brown Roof Gray House
PO Box	514 Church Rock NM 87311		2.75mi Second Canyon Road	Framed House	White Roof Gray House
PO Box	1247 Church Rock NM 87311	239B	2.75mi Second Canyon Road	Framed House	Brown Roof Black House
PO Box	335 Church Rock NM 87311	239C	2.75mi Second Canyon Road	Single Wide Trailer	White Roof Gray House
PO Box	931 Church Rock NM 87311		2.75mi Second Canyon Road	Framed House	White Roof White Trailer
PO Box	203 Church Rock NM 87311	255A	2.75mi Second Canyon Road	Framed House	White Roof Gray House
PO Box					Brown Roof Brown House

- Anderson, Mariano
- Jaqueline, Milano
- Clifford, Milano
- Robert/Christine Martin
- Arnold Begay
- Jasper Johnson
- DJ Begay-Church
- Alice Begay
- Tim Thompson
- Lewis Largo
- Lenette Largo
- Geneva Robert
- Carol Johnson
- David Johnson
- Joann Johnson
- Betty Hollisoi
- Betty Hollisoi
- Vera Thompson
- Lonnie Kee
- Fannie Yazzie
- Margaret Whitegoat
- Theresa Whitegoat
- Maggie Billie
- Hilh Whitegoat
- Hilh Whitegoat
- Ned Brodie
- Darrel Begay
- Nancy Lee
- Darwin Bills
- Lorraine Peterson
- James Peterson
- Leo Silversmith
- Selene Silago
- Tully Silversmith
- Orville Silversmith
- Travis Grey
- Louise Grey
- Lorna Grey
- Corinna Irving
- Lucy Lee
- Robert Irving
- Priscilla Irving
- Maria Irving
- *Grant Morgan
- Harry Morgan
- Harry Morgan
- Harry Morgan
- Francis Morgan
- Wilber Morgan
- Francis Morgan
- Francis Morgan
- Johnny Largo
- Johnny Largo
- Alice Largo
- Ernest Burbank
- Mary T Sherman
- Ella Rose Davis
- Janice Sherman
- Bernice Tsosie
- Corina Davis
- David Peterson
- Frank Peterson
- Danson Cadman

5/17/2010	Isabelle Curley	PO Box 4486	Gallup, NM 87301	255B	1.75mi Second Canyon Road	Framed House	Brown Roof Yellow House
	Marie	PO Box 203	Church Rock NM 87311	259B	1.75mi Second Canyon Road	Framed House	Brown Roof Yellow House
	Merlin	PO Box 203	Church Rock NM 87311	257A	1.75mi Second Canyon Road	Hogan	Brown Roof Hogan
	Linda & Whittier Curley	PO Box 974	Gallup, NM 87301	253	2.75mi Second Canyon Road	Framed House	Gray Roof Brown Stucco House
	Rose Lee Yazzie	PO Box 4217	Gallup, NM 87301	261	2.75mi Second Canyon Road	Framed House	Red Roof Rust Stucco House
	Rose & Susie Arviso	PO Box 922	Church Rock NM 87311	251A	2.75mi Second Canyon Road	Single Wide Trailer	Beige Roof Brown Trailer
	Frank & Susie Arviso	PO Box 922	Church Rock NM 87311	251B	2.75mi Second Canyon Road	Log Cabin House	Brown Roof Log Cabin
	Virginia Arviso	PO Box 536	Church Rock NM 87311		2.75mi Second Canyon Road	Framed House	White Roof Turquoise House
	Terry Yazzie	PO Box 536	Church Rock NM 87311		2.75mi Second Canyon Road	Framed House	White Roof Gray House
	Eiviera Curley	PO Box 1027	Thoreau, NM 86323		2.75mi Second Canyon Road	Framed House	White Roof Black House
	Jennie P. Begay	PO Box 1247	Church Rock NM 87311	224A	2.75mi Second Canyon Road	Log Cabin House	White Roof Log Cabin House
	Jones P. Begay	PO Box 1247	Church Rock NM 87311	224B	2.75mi Second Canyon Road	Log Cabin House	Brown Roof Log Cabin House
	Julia Begay	PO Box 430	Church Rock NM 87311		3mi Second Canyon Road	Framed House	Brown Roof Gray House
	Julia	PO Box 430	Church Rock NM 87311	322A	3mi Second Canyon Road	Hogan	Brown Roof Brown Hogan
	Bertha Lewis	PO Box 437	Church Rock NM 87311	322B	3mi Second Canyon Road	Framed House	Red Roof White House
	Patricia Platero	PO Box 665	Church Rock NM 87311	322D	3mi Second Canyon Road	Hogan	White Roof Gray Hogan
	Leona Begay	PO Box 728	Church Rock NM 87311	322E	3mi Second Canyon Road	Framed House	White Roof Gray House
	Victor Lewis	PO Box 437	Church Rock NM 87311	322F	3mi Second Canyon Road	Framed House	White Roof White House
	Leroy Lewis	PO Box 723	Church Rock NM 87311	354	3mi Second Canyon Road	Framed House	White Roof White House
	Delores Nolah	PO Box 826	Church Rock NM 87311	320	3mi Second Canyon Road	Framed House	Brown Roof Gray House
	Dixie Lewis	PO Box 826	Church Rock NM 87311		3mi Second Canyon Road	Hogan	Brown Roof Hogan
	Edison Yazzie	PO Box 826	Church Rock NM 87311	317A	3mi Second Canyon Road	Single Wide Trailer	White Roof Whiter Trailer
	Gelena Yazzie	PO Box 1345	Church Rock NM 87311	317B	3mi Second Canyon Road	Framed House	Brown Roof Yellow House
	Adina Robertson	PO Box 826	Church Rock NM 87311	318A	3mi Second Canyon Road	Framed House	Brown Roof Gray Stucco House
	Priscilla Lewis	PO Box 1427	Church Rock NM 87311		3mi Second Canyon Road	Framed House	Brown Roof Gray Stucco House
	Priscilla Lewis	PO Box 1427	Church Rock NM 87311		3mi Second Canyon Road	Hogan	White Roof Gray Hogan
	Harrison Billie	PO Box 826	Church Rock NM 87311		3mi Second Canyon Road	Framed House	Metal Roof Metal Side
	Sarah Zuni	PO Box	Old Church	473A	4.8mi Second Canyon Road	Framed House	Brown Roof Brown House
	Sarah Zuni	PO Box	202 Church Rock NM 87311	473B	4.8mi Second Canyon Road	Old Church	Brown Roof Metal Side
	Francis Zuni	PO Box			4.8mi Second Canyon Road	Framed House	Brown Roof Red House
	United Methodist Church	PO Box			4.8mi Second Canyon Road	Framed House	White Roof White House
	United Methodist Church	PO Box			4.8mi Second Canyon Road	Framed House	White Roof White House
	Emma Yazzie	PO Box 1176	Church Rock NM 87311	476A	4.8mi Second Canyon Road	Framed House	White Roof White House
	Lita Bah Antonio	PO Box 136	Church Rock NM 87311	476B	4.8mi Second Canyon Road	Log Cabin Hogan	Brown Roof Log Cabin Hogan
	Virginia Lee	PO Box 1234	Church Rock NM 87311	476C	4.8mi Second Canyon Road	Log Cabin Hogan	Green Roof Log Cabin Hogan
	Antia Francisco	PO Box 1429	Church Rock NM 87311	476D	4.8mi Second Canyon Road	Single Wide Trailer	Brown Roof Pink Trailer
	Hank Antonio	PO Box 1221	Church Rock NM 87311		4.8mi Second Canyon Road	Framed House	Tan Roof Green House
	Rena Antonio	PO Box 276	Church Rock NM 87311		4.8mi Second Canyon Road	Framed House	Brown Roof Reddish House
	Lita Y. Antonio	PO Box 1176	Church Rock NM 87311		4.8mi Second Canyon Road	Framed House	Brown Roof Beige House
	Bennie Jaye	PO Box 1021	Church Rock NM 87311		5.5mi Second Canyon Road	Framed House	Brown Roof Gray House
	Bennie Jaye	PO Box 1021	Church Rock NM 87311		5.5mi Second Canyon Road	Framed House	Brown Roof Light Yellow House
	James S. Billy	PO Box 2015	Gallup, NM 87301	530A	5.5mi Second Canyon Road	Hogan	Brown Roof Brown Hogan
	Ernest Lewis	PO Box 876	Church Rock NM 87311	530B	5.5mi Second Canyon Road	Single Wide Trailer	Brown Roof Pale Rose Trailer
	Ernest Lewis	PO Box 876	Church Rock NM 87311	569	5.5mi Second Canyon Road	Dble Wide Trailer	Brown Roof Beige Trailer
	Emily Scott	PO Box 1216	Church Rock NM 87311	572	5.5mi Second Canyon Road	Hogan	Tan Roof Tan Hogan
	Janice Bennett	PO Box 1434	Church Rock NM 87311	558A	5.5mi Second Canyon Road	Framed House	Brown Roof Brown House
	Janice Bennett	PO Box 1434	Church Rock NM 87311	558B	5.5mi Second Canyon Road	Hogan	Log Hogan

ELLEN ROAD

5	1.5mi E of Second Canyon Road	Framed House	Gray Roof Gray House
	1.5mi E of Second Canyon Road	Hogan	Beige Roof Beige Hogan
480C	1/4mi Ellen Road	Framed House	Brown Roof Tan House
480A	1/4mi Ellen Road	Hogan	Brown Roof Vanilla Hogan
	1/4mi Ellen Road		Concrete Foundation
430A	1/2mi Ellen Road	Framed House	Gray Roof Brown/Gray House
430	1/2mi Ellen Road	Framed House	Brown Roof Yellow House
430B	1/2mi Ellen Road	Hogan	Red Roof Gray Stucco Hogan
430C	1/2mi Ellen Road	Hogan	Gray Roof Red Hogan w/ Addition

PINEDALE LOOP

37A	1/2mi Pinedale Loop	Dble Wide Trailer	Gray Roof White Trailer
40	1/2mi Pinedale Loop	Bldg	Stone Wall Building
38	1/2mi Pinedale Loop	Dble Wide Trailer	Rust Roof White Trailer
40B	1/2mi Pinedale Loop	Dble Wide Trailer	Brown Roof Beige Trailer
	1/2mi Pinedale Loop	Hogan	Brown Roof Orange Yellow Hogan

Angus Silversmith	PO Box 301	Church Rock NM 87311	68A	1/2mi Pinedale Loop	Framed House	Brown Roof Yellow Stucco House
Therese Smith	PO Box 594	Church Rock NM 87311	68B	1/2mi Pinedale Loop	Framed House	Brown Roof Cream House
Cheryl Smith	PO Box 594	Church Rock NM 87311	70	1/2mi Pinedale Loop	Framed House	Brown Roof White House
Elizabeth Livingston	PO Box 1086	Church Rock NM 87311	72A	1/2mi Pinedale Loop	Framed House	Dark Green Roof Light Green House
Belinda Tapaha	PO Box 561	Church Rock NM 87311	72B	1/2mi Pinedale Loop	Framed House	Brown Roof Gray House
Richard Largo	PO Box 514	Gallup, NM 87301	78B	1/2mi Pinedale Loop	Hogan	White Roof Gray Hogan
Victoria Largo	PO Box 1232	Church Rock NM 87311	78A	1/2mi Pinedale Loop	Framed House	Brown Roof Pink House
Elva Largo	PO Box 1232	Church Rock NM 87311	52	1/2mi Pinedale Loop	Hogan	Gray Roof Brown Hogan
Karen/Felix Nez	PO Box	Church Rock NM 87311	101A	1/2mi Pinedale Loop	Dble Wide Trailer	Gray Roof White Trailer
*Dan Largo	PO Box		101C	3/4mi Pinedale Loop	Framed House	Green Roof Gray House
Felix Nez	PO Box		101D	3/4mi Pinedale Loop	Hogan	Green Roof Cream Hogan
Leon Curley	PO Box 292	Church Rock NM 87311	101B	3/4mi Pinedale Loop	Shed House	Brown Shed
Leon Curley	PO Box 292	Church Rock NM 87311	88A	3/4mi Pinedale Loop	Hogan	White Roof Tan Hogan
Leon Curley	PO Box 292	Church Rock NM 87311	88B	3/4mi Pinedale Loop	Hogan	White Roof Gray Hogan
Leon Curley	PO Box 292	Church Rock NM 87311	86B	3/4mi Pinedale Loop	Single Wide Trailer	Gray Roof White Trailer
Leon Curley	PO Box 292	Church Rock NM 87311		3/4mi Pinedale Loop	Single Wide Trailer	Silver Roof White Trailer

Vernon Harry	PO Box 112	Church Rock NM 87311	114	1mi Assembly Valley Road	Framed House	Green Roof Yellow House
Emerson Degroat	PO Box	Nursing Home	116	1mi Assembly Valley Road	Framed House	Green Roof Cream House
Alvin Harry	PO Box 729	Church Rock NM 87311	101	1mi Assembly Valley Road	Framed House	Brown Roof Gray Stucco House
Susie Manuello	PO Box 1103	Church Rock NM 87311	100	1mi Assembly Valley Road	Framed House	Brown Roof Beige House
Valarie Maneuge	PO Box			1mi Assembly Valley Road	Single Wide Trailer	Silver Roof White Trailer
*Ben/Alberta Thompson	PO Box		75	3/4mi Assembly Valley Road	Framed House	Blue Roof Blue House
Patrick Chee	PO Box			3/4mi Assembly Valley Road	Dble Wide Trailer	White Roof Light Blue Trailer
Herman & Lucy Brown	PO Box 846	Church Rock NM 87311	57	3/4mi Assembly Valley Road	Dble Wide Trailer	Brown Roof Turquoise Trailer
Orlanda Brown	PO Box 552	Church Rock NM 87311	58	3/4mi Assembly Valley Road	Dble Wide Trailer	White Roof Beige Trailer
Orlanda Brown	PO Box 684	Church Rock NM 87311	55	3/4mi Assembly Valley Road	Dble Wide Trailer	Brown Roof Beige Trailer
Dery & Louise Tsosie	PO Box 291	Church Rock NM 87311	49	3/4mi Assembly Valley Road	Framed House	Brown Roof Beige House
Tom Becenti	PO Box 541	Church Rock NM 87311	32C	1/2mi Assembly Valley Road	Framed House	Blue Roof Beige 2 Story House
Laranda John	PO Box 541	Church Rock NM 87311	34	1/2mi Assembly Valley Road	Hogan	Brown Roof Cream Hogan
Derrick John	PO Box 263	Church Rock NM 87311	32B	1/2mi Assembly Valley Road	Framed House	Red Roof L Shaped House
Roy Brown	PO Box 321	Church Rock NM 87311	30	1/2mi Assembly Valley Road	Hogan	Red Roof Hogan
Jeanita Brown	PO Box 321	Church Rock NM 87311	30	1/2mi Assembly Valley Road	Framed House	Brown Roof Pink House
Arlene/Andrew Leslie	PO Box 321	Church Rock NM 87311	32	1/2mi Assembly Valley Road	Shed House	Red Roof Black Shed
Arlette/Andrew Leslie	PO Box 321	Church Rock NM 87311	32	1/2mi Assembly Valley Road	Framed House	Green Sheet Metal Roof Cream House
Aunian/Roxanna Largo	PO Box 232	Church Rock NM 87311	28	1/4mi Assembly Valley Road	Church	Blue Roof White Church
Assembly of God Church	PO Box		20A	1/4mi Assembly Valley Road		
Delbert Nez	PO Box 150	Rehobeth, NM 87322	20B	1/4mi Assembly Valley Road	Framed House	Gray Roof Light Blue House
Lewis B. Yazzie	PO Box 157	Rehobeth, NM 87322	22	1/4mi Assembly Valley Road	Framed House	Red Green Roof Yellow House
Lewis B. Yazzie	PO Box 157	Rehobeth, NM 87322	10	1/4mi Assembly Valley Road	Framed House	Gray Roof Purple Stucco House
Lewis B. Yazzie	PO Box 157	Rehobeth, NM 87322		1/4mi Assembly Valley Road	Hogan	Green Roof Gray Stucco Hogan
Roger B. Johnson	PO Box 79	Rehobeth, NM 87322	02A	1/4mi Assembly Valley Road	Framed House	Gray Roof Cream House
Bermina Johnson	PO Box 79	Rehobeth, NM 87322	02B	1/4mi Assembly Valley Road	Single Wide Trailer	Silver Roof Green Trailer
Philbert Nez	PO Box 421	Church Rock NM 87311		1/4mi Assembly Valley Road	Single Wide Trailer	White Roof Light Blue Trailer
Gilbert Nez	PO Box 421	Church Rock NM 87311	8	1/4mi Assembly Valley Road	Framed House	Blue Gray House

Deanna Brodie	PO Box 1185	Church Rock NM 87311	07A	1/4mi Timber Ridge Road	Framed House	White Roof Blue House
Deanna Brodie	PO Box 1185	Church Rock NM 87311	07B	1/4mi Timber Ridge Road	Single Wide Trailer	Silver Roof White Trailer
Guy Brodie	PO Box 1317	Church Rock NM 87311		1/4mi Timber Ridge Road	Framed House	Brown Roof Light Blue House
Julia Brodie	PO Box 1185	Church Rock NM 87311	32B	1/2mi Timber Ridge Road	Single Wide Trailer	White Roof White Trailer
Christian Reformed Church	PO Box		32	1/2mi Timber Ridge Road	Framed House	Old Church Green
Boyd Brodie	PO Box 1195	Church Rock NM 87311	37A	1/2mi Timber Ridge Road	Framed House	Brown Roof Cream Stucco House
Boyd Brodie	PO Box 1195	Church Rock NM 87311	37B	1/2mi Timber Ridge Road	Hogan	Gray Roof Log Hogan
Gladys Brodie	PO Box 700	Church Rock NM 87311	49	1/2mi Timber Ridge Road	Framed House	White Roof Pink House
Paulaite Brodie	PO Box 1185	Church Rock NM 87311	51	1/2mi Timber Ridge Road	Framed House	White Roof Blue House
Timber Ridge Rodeo Ground	PO Box 291	Crownpoint NM 87313	64	3/4mi Timber Ridge Road	Rodeo Arena	
Wade S. Morgan	PO Box 844	Church Rock NM 87311	120A	1mi Timber Ridge Road	Framed House	Red Roof Yellow House
Tom A. Morgan	PO Box 844	Church Rock NM 87311	106A	1mi Timber Ridge Road	Framed House	White Roof White House
Tom A. Morgan	PO Box 844	Church Rock NM 87311	106B	1mi Timber Ridge Road	Hogan	White Roof Light Pink Hogan
Lawrence Morgan	PO Box 871	Church Rock NM 87311	104B	1mi Timber Ridge Road	Single Wide Trailer	Light Green Trailer
Mary Tom	PO Box 1478	Church Rock NM 87311	96C	1mi Timber Ridge Road	Framed House	White Roof Gray Stucco House
Mary Tom	PO Box 1478	Church Rock NM 87311	96B	1mi Timber Ridge Road	Hogan	White Roof Gray Hogan
Mary Tom	PO Box 1478	Church Rock NM 87311	96D	1mi Timber Ridge Road	Single Wide Trailer	White Trailer Yellow Trim-Demolished

*Nellie Irving

LeWanda Morgan

LaVera Morgan

LaVera Morgan

Jennifer & Ernie Mariano

Louise & Roger Mariano D

Julius Morgan

Michael Davis

Michael Davis

Michael Davis

James Lewis

Patrick Dabbs

Patrick Dabbs

Roy Hosteen

Jezebel Hosteen

Elroy & Ida Morgan

Elroy & Ida Morgan

Tully Lee

Alta Davis

Kimberly Begay

Nancy Etiacho

Ophelia Charleston

Gabriel D. Brodie

Margaret Begay

Elsie Begay

Clint Begay

Janice Begay

Genevieve Begay

Jones R. Begay, Jr

Melinda Billy James

Delfred & Genevieve Begay

Grace Sam

*Sadie Becenti

Mania Desiderio

Peter Anderson

Peter Anderson

Manilyn Morris

Manilyn Morris

Ida Begay

April Martin

Helen Frank

Don Arviso

Don Arviso

*Bernie & Diana Arviso

*Bernie & Diana Arviso

Dean Arviso

Esther Frank

Esther Frank

*Hoskie Frank

Samuel Parker

Glenn Davis

Clifton Davis

Virginia Cadman

Elvin Cadman

Leibert & Elvira Cadman

Elbert Cadman

Elbert Cadman

PO Box 86 Fort Wingate, NM 87316

PO Box 607 Church Rock NM 87311

PO Box 607 Church Rock NM 87311

PO Box 664 Fort Wingate, NM 87316

PO Box 543 Church Rock NM 87311

PO Box 401 Church Rock NM 87311

PO Box 937 Church Rock NM 87311

PO Box 937 Church Rock NM 87311

PO Box 937 Church Rock NM 87311

PO Box 789 Church Rock NM 87311

PO Box 1297 Church Rock NM 87311

PO Box 327 Church Rock NM 87311

PO Box 327 Church Rock NM 87311

PO Box 1203 Church Rock NM 87311

PO Box 1203 Church Rock NM 87311

PO Box 52 Church Rock NM 87311

PO Box 423 Church Rock NM 87311

PO Box 955 Church Rock NM 87311

PO Box 1187 Church Rock NM 87311

PO Box 1317 Church Rock NM 87311

PO Box 3321 Gallup, NM 87301

PO Box 217 Gallup, NM 87301

PO Box 217 Gallup, NM 87301

PO Box 217 Gallup, NM 87301

PO Box 1446 Church Rock NM 87311

PO Box 217 Gallup, NM 87301

PO Box 217 Gallup, NM 87301

PO Box 1157 Church Rock NM 87311

PO Box 1640 Crownpoint NM 87313

PO Box 356 Church Rock NM 87311

PO Box 356 Church Rock NM 87311

PO Box 1151 Church Rock NM 87311

PO Box 1151 Church Rock NM 87311

PO Box 111 Church Rock NM 87311

PO Box 1167 Church Rock NM 87311

PO Box 1165 Church Rock NM 87311

PO Box 1197 Church Rock NM 87311

EAST OF TIMBER RIDGE ROAD

96A 1mi Timber Ridge Road Framed House White Roof Yellow House
 96E 1mi Timber Ridge Road Hogan Gray Roof Black Hogan
 5 1mi Timber Ridge Road NHA House Brown Roof Rust Hogan
 4 1mi Timber Ridge Road NHA House Blue Roof Light Blue House
 3 1mi Timber Ridge Road Red Sheet Metal Roof Yellow Hogan
 2 1mi Timber Ridge Road NHA House Blue Roof Light Blue House
 120 1mi Timber Ridge Road Hogan Brown Roof Rust Hogan
 832 1/16mi S of Hwy N11-49 Framed House Green Roof Cream Stucco House
 1/16mi S of Hwy N11-49 Dble Wide Trailer Gray Roof Beige Trailer
 834B 1/16mi S of Hwy N11-49 Framed House Green Roof Cream Stucco House
 812 1/4mi S of Hwy N11-49 Framed House Green Roof Black House
 812A 1/4mi S of Hwy N11-49 Single Wide Trailer White Roof White Trailer
 Hogan White Roof White Hogan

FALLEN MAPLE CANYON ROAD

1/2mi Fallen Maple Canyon Road Framed House White Roof Light Brown House
 1/2mi Fallen Maple Canyon Road Framed House White Roof White House
 24 1/16mi Fallen Maple Canyon Road Framed House Green Roof Stucco House
 1/16mi Fallen Maple Canyon Road Single Wide Trailer Silver Roof White Trailer
 1/16mi Fallen Maple Canyon Road Hogan Brown Roof Stucco Hogan
 47 1/16mi Fallen Maple Canyon Road Single Wide Trailer White Roof White Trailer w/Brown Trim
 46A/B 1/16mi Fallen Maple Canyon Road Framed House Brown Stucco House
 63B 1/4mi Fallen Maple Canyon Road Brown Roof Beige Stucco House
 63A 1/4mi Fallen Maple Canyon Road Single Wide Trailer Silver Roof Beige Trailer
 64 1/16mi Fallen Maple Canyon Road Framed House Blue Metal Roof Light Yellow House
 1/16mi Fallen Maple Canyon Road Single Wide Trailer Silver Roof White Trailer
 65A 1/2mi Fallen Maple Canyon Road Dble Wide Trailer Brown Roof Light Cream Trailer
 1/2mi Fallen Maple Canyon Road Dble Wide Trailer White Roof Gray Trailer
 1/2mi Fallen Maple Canyon Road Framed House Green Roof Cream House
 1/2mi Fallen Maple Canyon Road Framed House Brown Roof Cream House
 67B 1/2mi Fallen Maple Canyon Road Single Wide Trailer Brown Roof Beige Trailer
 69B 1/2mi Fallen Maple Canyon Road Single Wide Trailer Silver Roof White Trailer
 228 1/2mi Fallen Maple Canyon Road Hogan Light Brown Roof Hogan
 310A/B 2.5mi Fallen Maple Canyon Road Framed House Brown Roof Tan House
 270 2.5mi Fallen Maple Canyon Road Hogan White Roof Yellow Hogan
 222B 2.5mi Fallen Maple Canyon Road Framed House Red Roof Red House
 248 2.5mi Fallen Maple Canyon Road Framed House Brown Roof Yellow House
 248 2.5mi Fallen Maple Canyon Road Framed House White Roof Orange House

SUNNYSIDE RANCH ROAD

810 1.2mi Sunnyside Ranch Road Framed House White Roof Pink House
 105D 1.2mi Sunnyside Ranch Road Framed House Brown Roof Blue House
 105C 1.2mi Sunnyside Ranch Road Framed House White Roof Yellow House
 105A 1.2mi Sunnyside Ranch Road Hogan Green Roof White Hogan
 105B 1.2mi Sunnyside Ranch Road Framed House Green Roof Yellow Hogan
 107 1.2mi Sunnyside Ranch Road Single Wide Trailer White Roof Beige Trailer
 32B 1/2mi Sunnyside Ranch Road NHA House Green Metal Roof Gray House
 32A 1/2mi Sunnyside Ranch Road Single Wide Trailer Silver Roof White Trailer
 1/2mi Sunnyside Ranch Road Framed House White Roof Rust House
 1/2mi Sunnyside Ranch Road Single Wide Trailer White Roof White Trailer
 872A 1/4mi S of Hwy N11-49 Hogan Gray Roof Gray Hogan
 872B 1/4mi S of Hwy N11-49 Framed House Brown Roof Rust House
 872C 1/4mi S of Hwy N11-49 Framed House Gray Roof Green House
 872D 1/4mi S of Hwy N11-49 Framed House Red Roof Ply Board House
 1/4mi S of Hwy N11-49 Single Wide Trailer Maroon Trailer
 1/4mi S of Hwy N11-49 Framed House Green Roof PlyBoard House
 1/4mi S of Hwy N11-49 Single Wide Trailer White Trailer

EAST OF FALLEN MAPLE ROAD

872A 1/4mi S of Hwy N11-49 Hogan Gray Roof Gray Hogan
 872B 1/4mi S of Hwy N11-49 Framed House Brown Roof Rust House
 872C 1/4mi S of Hwy N11-49 Framed House Gray Roof Green House
 872D 1/4mi S of Hwy N11-49 Framed House Red Roof Ply Board House
 1/4mi S of Hwy N11-49 Single Wide Trailer Maroon Trailer
 1/4mi S of Hwy N11-49 Framed House Green Roof PlyBoard House
 1/4mi S of Hwy N11-49 Single Wide Trailer White Trailer

12 SOIL REPORT



12 SOIL REPORT





United States
Department of
Agriculture

NRCS

Natural
Resources
Conservation
Service

A product of the National
Cooperative Soil Survey,
a joint effort of the United
States Department of
Agriculture and other
Federal agencies, State
agencies including the
Agricultural Experiment
Stations, and local
participants

Custom Soil Resource Report for McKinley County Area, New Mexico, McKinley County and Parts of Cibola and San Juan Counties



Preface

Soil surveys contain information that affects land use planning in survey areas. They highlight soil limitations that affect various land uses and provide information about the properties of the soils in the survey areas. Soil surveys are designed for many different users, including farmers, ranchers, foresters, agronomists, urban planners, community officials, engineers, developers, builders, and home buyers. Also, conservationists, teachers, students, and specialists in recreation, waste disposal, and pollution control can use the surveys to help them understand, protect, or enhance the environment.

Various land use regulations of Federal, State, and local governments may impose special restrictions on land use or land treatment. Soil surveys identify soil properties that are used in making various land use or land treatment decisions. The information is intended to help the land users identify and reduce the effects of soil limitations on various land uses. The landowner or user is responsible for identifying and complying with existing laws and regulations.

Although soil survey information can be used for general farm, local, and wider area planning, onsite investigation is needed to supplement this information in some cases. Examples include soil quality assessments (<http://www.nrcs.usda.gov/wps/portal/nrcs/main/soils/health/>) and certain conservation and engineering applications. For more detailed information, contact your local USDA Service Center (<https://offices.sc.egov.usda.gov/locator/app?agency=nrcs>) or your NRCS State Soil Scientist (http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/contactus/?cid=nrcs142p2_053951).

Great differences in soil properties can occur within short distances. Some soils are seasonally wet or subject to flooding. Some are too unstable to be used as a foundation for buildings or roads. Clayey or wet soils are poorly suited to use as septic tank absorption fields. A high water table makes a soil poorly suited to basements or underground installations.

The National Cooperative Soil Survey is a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local agencies. The Natural Resources Conservation Service (NRCS) has leadership for the Federal part of the National Cooperative Soil Survey.

Information about soils is updated periodically. Updated information is available through the NRCS Web Soil Survey, the site for official soil survey information.

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How Soil Surveys Are Made

Soil surveys are made to provide information about the soils and miscellaneous areas in a specific area. They include a description of the soils and miscellaneous areas and their location on the landscape and tables that show soil properties and limitations affecting various uses. Soil scientists observed the steepness, length, and shape of the slopes; the general pattern of drainage; the kinds of crops and native plants; and the kinds of bedrock. They observed and described many soil profiles. A soil profile is the sequence of natural layers, or horizons, in a soil. The profile extends from the surface down into the unconsolidated material in which the soil formed or from the surface down to bedrock. The unconsolidated material is devoid of roots and other living organisms and has not been changed by other biological activity.

Currently, soils are mapped according to the boundaries of major land resource areas (MLRAs). MLRAs are geographically associated land resource units that share common characteristics related to physiography, geology, climate, water resources, soils, biological resources, and land uses (USDA, 2006). Soil survey areas typically consist of parts of one or more MLRA.

The soils and miscellaneous areas in a survey area occur in an orderly pattern that is related to the geology, landforms, relief, climate, and natural vegetation of the area. Each kind of soil and miscellaneous area is associated with a particular kind of landform or with a segment of the landform. By observing the soils and miscellaneous areas in the survey area and relating their position to specific segments of the landform, a soil scientist develops a concept, or model, of how they were formed. Thus, during mapping, this model enables the soil scientist to predict with a considerable degree of accuracy the kind of soil or miscellaneous area at a specific location on the landscape.

Commonly, individual soils on the landscape merge into one another as their characteristics gradually change. To construct an accurate soil map, however, soil scientists must determine the boundaries between the soils. They can observe only a limited number of soil profiles. Nevertheless, these observations, supplemented by an understanding of the soil-vegetation-landscape relationship, are sufficient to verify predictions of the kinds of soil in an area and to determine the boundaries.

Soil scientists recorded the characteristics of the soil profiles that they studied. They noted soil color, texture, size and shape of soil aggregates, kind and amount of rock fragments, distribution of plant roots, reaction, and other features that enable them to identify soils. After describing the soils in the survey area and determining their properties, the soil scientists assigned the soils to taxonomic classes (units). Taxonomic classes are concepts. Each taxonomic class has a set of soil characteristics with precisely defined limits. The classes are used as a basis for comparison to classify soils systematically. Soil taxonomy, the system of taxonomic classification used in the United States, is based mainly on the kind and character of soil properties and the arrangement of horizons within the profile. After the soil

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scientists classified and named the soils in the survey area, they compared the individual soils with similar soils in the same taxonomic class in other areas so that they could confirm data and assemble additional data based on experience and research.

The objective of soil mapping is not to delineate pure map unit components; the objective is to separate the landscape into landforms or landform segments that have similar use and management requirements. Each map unit is defined by a unique combination of soil components and/or miscellaneous areas in predictable proportions. Some components may be highly contrasting to the other components of the map unit. The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The delineation of such landforms and landform segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, onsite investigation is needed to define and locate the soils and miscellaneous areas.

Soil scientists make many field observations in the process of producing a soil map. The frequency of observation is dependent upon several factors, including scale of mapping, intensity of mapping, design of map units, complexity of the landscape, and experience of the soil scientist. Observations are made to test and refine the soil-landscape model and predictions and to verify the classification of the soils at specific locations. Once the soil-landscape model is refined, a significantly smaller number of measurements of individual soil properties are made and recorded. These measurements may include field measurements, such as those for color, depth to bedrock, and texture, and laboratory measurements, such as those for content of sand, silt, clay, salt, and other components. Properties of each soil typically vary from one point to another across the landscape.

Observations for map unit components are aggregated to develop ranges of characteristics for the components. The aggregated values are presented. Direct measurements do not exist for every property presented for every map unit component. Values for some properties are estimated from combinations of other properties.

While a soil survey is in progress, samples of some of the soils in the area generally are collected for laboratory analyses and for engineering tests. Soil scientists interpret the data from these analyses and tests as well as the field-observed characteristics and the soil properties to determine the expected behavior of the soils under different uses. Interpretations for all of the soils are field tested through observation of the soils in different uses and under different levels of management. Some interpretations are modified to fit local conditions, and some new interpretations are developed to meet local needs. Data are assembled from other sources, such as research information, production records, and field experience of specialists. For example, data on crop yields under defined levels of management are assembled from farm records and from field or plot experiments on the same kinds of soil.

Predictions about soil behavior are based not only on soil properties but also on such variables as climate and biological activity. Soil conditions are predictable over long periods of time, but they are not predictable from year to year. For example, soil scientists can predict with a fairly high degree of accuracy that a given soil will have a high water table within certain depths in most years, but they cannot predict that a high water table will always be at a specific level in the soil on a specific date.

After soil scientists located and identified the significant natural bodies of soil in the survey area, they drew the boundaries of these bodies on aerial photographs and

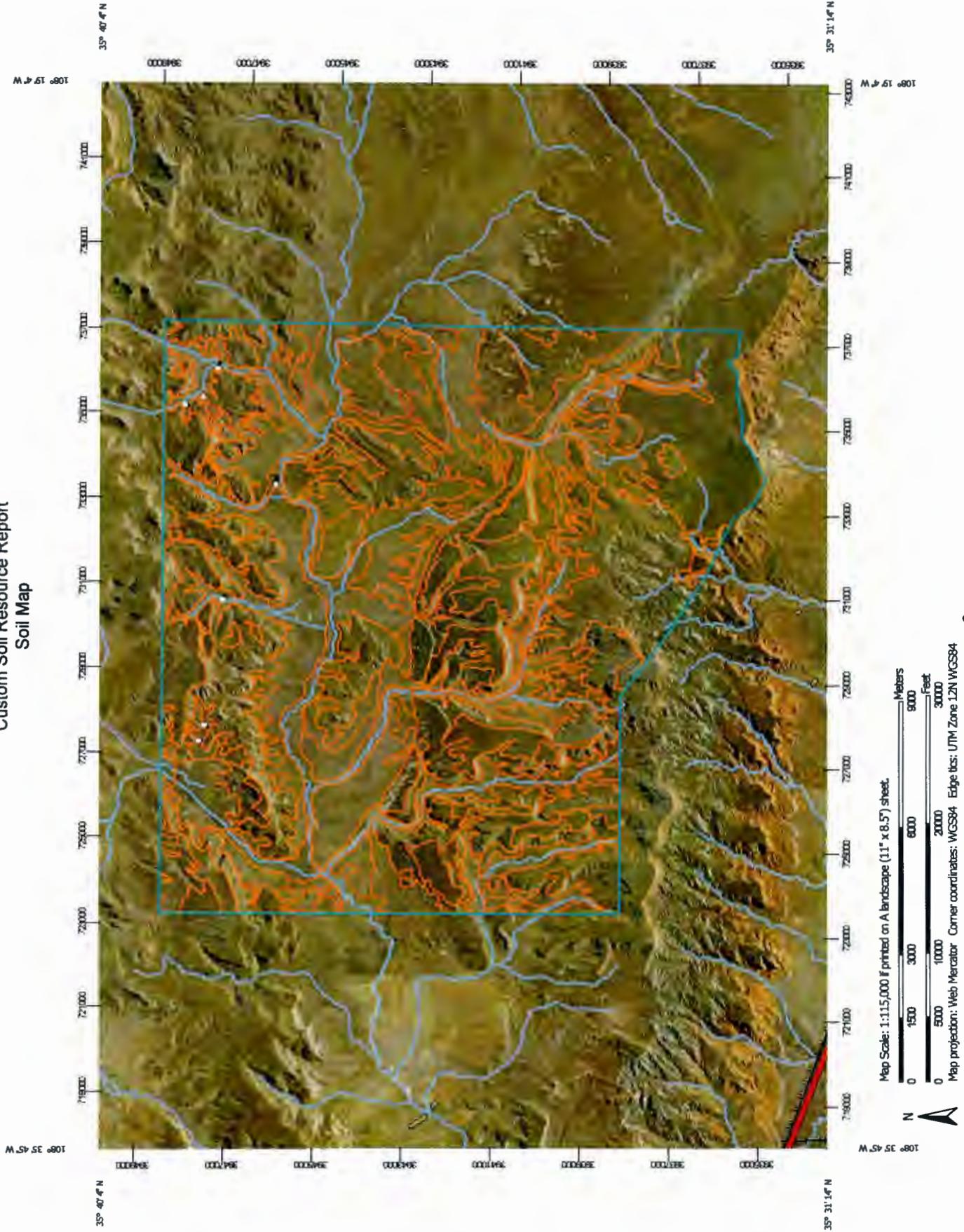
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identified each as a specific map unit. Aerial photographs show trees, buildings, fields, roads, and rivers, all of which help in locating boundaries accurately.

Soil Map

The soil map section includes the soil map for the defined area of interest, a list of soil map units on the map and extent of each map unit, and cartographic symbols displayed on the map. Also presented are various metadata about data used to produce the map, and a description of each soil map unit.

Custom Soil Resource Report Soil Map



MAP LEGEND

 Area of Interest (AOI)	 Spoil Area
 Soils	 Stony Spot
 Soil Map Unit Polygons	 Very Stony Spot
 Soil Map Unit Lines	 Wet Spot
 Soil Map Unit Points	 Other
 Special Point Features	 Special Line Features
 Blowout	 Streams and Canals
 Borrow Pit	 Transportation
 Clay Spot	 Rails
 Closed Depression	 Interstate Highways
 Gravel Pit	 US Routes
 Gravelly Spot	 Major Roads
 Landfill	 Local Roads
 Lava Flow	 Background
 Marsh or swamp	 Aerial Photography
 Mine or Quarry	
 Miscellaneous Water	
 Perennial Water	
 Rock Outcrop	
 Saline Spot	
 Sandy Spot	
 Severely Eroded Spot	
 Sinkhole	
 Slide or Slip	
 Sodic Spot	

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:24,000.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:

Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: McKinley County Area, New Mexico, McKinley County and Parts of Cibola and San Juan Counties
Survey Area Data: Version 12, Sep 13, 2017

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Apr 13, 2011—Mar 3, 2017

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
230	Sparank-San Mateo-Zia complex, 0 to 3 percent slopes	2,483.9	6.2%
241	Mentmore loam, 1 to 8 percent slopes	4,505.7	11.3%
242	Gish-Mentmore complex, 1 to 8 percent slopes	1,810.1	4.5%
244	Buckle fine sandy loam, 1 to 8 percent slopes	1,579.7	4.0%
245	Buckle-Gapmesa-Barboncito complex, 1 to 6 percent slopes	584.1	1.5%
258	Eagleye-Atchee-Rock outcrop complex, 2 to 35 percent slopes	2.5	0.0%
265	Uranium mined lands	512.3	1.3%
290	Rock outcrop-Westmion-Skyvillage complex, 30 to 80 percent slopes	3,019.3	7.6%
291	Rock outcrop-Eagleye-Atchee complex, 35 to 70 percent slopes	2,439.6	6.1%
305	Celavar-Atarque complex, 1 to 8 percent slopes	1,385.7	3.5%
310	Parkelei sandy loam, 1 to 8 percent slopes	111.3	0.3%
315	Flugle-Fragua complex, 1 to 10 percent slopes	1,712.0	4.3%
317	Highdye-Evpark-Bryway complex, 2 to 20 percent slopes	0.0	0.0%
320	Parkelei-Fraguni complex, 1 to 8 percent slopes	461.8	1.2%
332	Evpark-Arabrab complex, 2 to 6 percent slopes	1,763.5	4.4%
338	Zyme-Lockerby association, 5 to 35 percent slopes	3,252.2	8.1%
350	Toldohn-Vessilla-Rock outcrop complex, 8 to 35 percent slopes	7,995.9	20.0%
351	Rock outcrop-Vessilla complex, 35 to 70 percent slopes	590.7	1.5%
352	Zia sandy loam, 1 to 5 percent slopes	532.2	1.3%

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Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
355	Rizno-Tekapo-Rock outcrop complex, 2 to 45 percent slopes	32.2	0.1%
360	Hosta-Concho association, 0 to 5 percent slopes	245.4	0.6%
365	Vessilla-Rock outcrop complex, 2 to 15 percent slopes	1,893.7	4.7%
375	Todest-Shadilto complex, 2 to 8 percent slopes	2,447.5	6.1%
380	Berryhill-Casamero clays, 2 to 10 percent slopes	97.8	0.2%
404	Rock outcrop-Techado-Stozuni complex, 5 to 60 percent slopes	312.1	0.8%
555	Parkelei-Evpark fine sandy loams, 2 to 8 percent slopes	161.6	0.4%
Totals for Area of Interest		39,932.6	100.0%

Map Unit Descriptions

The map units delineated on the detailed soil maps in a soil survey represent the soils or miscellaneous areas in the survey area. The map unit descriptions, along with the maps, can be used to determine the composition and properties of a unit.

A map unit delineation on a soil map represents an area dominated by one or more major kinds of soil or miscellaneous areas. A map unit is identified and named according to the taxonomic classification of the dominant soils. Within a taxonomic class there are precisely defined limits for the properties of the soils. On the landscape, however, the soils are natural phenomena, and they have the characteristic variability of all natural phenomena. Thus, the range of some observed properties may extend beyond the limits defined for a taxonomic class. Areas of soils of a single taxonomic class rarely, if ever, can be mapped without including areas of other taxonomic classes. Consequently, every map unit is made up of the soils or miscellaneous areas for which it is named and some minor components that belong to taxonomic classes other than those of the major soils.

Most minor soils have properties similar to those of the dominant soil or soils in the map unit, and thus they do not affect use and management. These are called noncontrasting, or similar, components. They may or may not be mentioned in a particular map unit description. Other minor components, however, have properties and behavioral characteristics divergent enough to affect use or to require different management. These are called contrasting, or dissimilar, components. They generally are in small areas and could not be mapped separately because of the scale used. Some small areas of strongly contrasting soils or miscellaneous areas are identified by a special symbol on the maps. If included in the database for a given area, the contrasting minor components are identified in the map unit descriptions along with some characteristics of each. A few areas of minor components may not have been observed, and consequently they are not mentioned in the descriptions, especially where the pattern was so complex that it

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was impractical to make enough observations to identify all the soils and miscellaneous areas on the landscape.

The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The objective of mapping is not to delineate pure taxonomic classes but rather to separate the landscape into landforms or landform segments that have similar use and management requirements. The delineation of such segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, however, onsite investigation is needed to define and locate the soils and miscellaneous areas.

An identifying symbol precedes the map unit name in the map unit descriptions. Each description includes general facts about the unit and gives important soil properties and qualities.

Soils that have profiles that are almost alike make up a *soil series*. Except for differences in texture of the surface layer, all the soils of a series have major horizons that are similar in composition, thickness, and arrangement.

Soils of one series can differ in texture of the surface layer, slope, stoniness, salinity, degree of erosion, and other characteristics that affect their use. On the basis of such differences, a soil series is divided into *soil phases*. Most of the areas shown on the detailed soil maps are phases of soil series. The name of a soil phase commonly indicates a feature that affects use or management. For example, Alpha silt loam, 0 to 2 percent slopes, is a phase of the Alpha series.

Some map units are made up of two or more major soils or miscellaneous areas. These map units are complexes, associations, or undifferentiated groups.

A *complex* consists of two or more soils or miscellaneous areas in such an intricate pattern or in such small areas that they cannot be shown separately on the maps. The pattern and proportion of the soils or miscellaneous areas are somewhat similar in all areas. Alpha-Beta complex, 0 to 6 percent slopes, is an example.

An *association* is made up of two or more geographically associated soils or miscellaneous areas that are shown as one unit on the maps. Because of present or anticipated uses of the map units in the survey area, it was not considered practical or necessary to map the soils or miscellaneous areas separately. The pattern and relative proportion of the soils or miscellaneous areas are somewhat similar. Alpha-Beta association, 0 to 2 percent slopes, is an example.

An *undifferentiated group* is made up of two or more soils or miscellaneous areas that could be mapped individually but are mapped as one unit because similar interpretations can be made for use and management. The pattern and proportion of the soils or miscellaneous areas in a mapped area are not uniform. An area can be made up of only one of the major soils or miscellaneous areas, or it can be made up of all of them. Alpha and Beta soils, 0 to 2 percent slopes, is an example.

Some surveys include *miscellaneous areas*. Such areas have little or no soil material and support little or no vegetation. Rock outcrop is an example.

McKinley County Area, New Mexico, McKinley County and Parts of Cibola and San Juan Counties

230—Sparank-San Mateo-Zia complex, 0 to 3 percent slopes

Map Unit Setting

National map unit symbol: 1xk8
Elevation: 6,300 to 6,900 feet
Mean annual precipitation: 10 to 13 inches
Mean annual air temperature: 49 to 54 degrees F
Frost-free period: 120 to 140 days
Farmland classification: Not prime farmland

Map Unit Composition

Sparank and similar soils: 40 percent
San mateo and similar soils: 35 percent
Zia and similar soils: 20 percent
Minor components: 5 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Sparank

Setting

Landform: Flood plains on valley floors, valley sides
Landform position (three-dimensional): Side slope, tread, talf
Down-slope shape: Linear, concave
Across-slope shape: Linear, concave
Parent material: Stream alluvium derived from calcareous sandstone

Typical profile

A - 0 to 2 inches: silty clay loam
C1 - 2 to 25 inches: clay
C2 - 25 to 65 inches: clay

Properties and qualities

Slope: 0 to 3 percent
Depth to restrictive feature: More than 80 inches
Natural drainage class: Well drained
Runoff class: High
Capacity of the most limiting layer to transmit water (Ksat): Moderately low (0.01 to 0.06 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: Frequent
Frequency of ponding: None
Calcium carbonate, maximum in profile: 5 percent
Salinity, maximum in profile: Nonsaline to slightly saline (0.0 to 4.0 mmhos/cm)
Sodium adsorption ratio, maximum in profile: 5.0
Available water storage in profile: High (about 10.1 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 6c
Hydrologic Soil Group: D
Ecological site: Clayey Bottomland (R035XA119NM)
Hydric soil rating: No

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Description of San Mateo

Setting

Landform: Valley sides, valley floors on flood plains
Landform position (three-dimensional): Side slope, tread, talf
Down-slope shape: Concave, linear
Across-slope shape: Concave, linear
Parent material: Stream alluvium derived from calcareous sandstone

Typical profile

A - 0 to 2 inches: clay loam
C1 - 2 to 15 inches: clay loam
C2 - 15 to 30 inches: sandy clay loam
C3 - 30 to 39 inches: clay loam
C4 - 39 to 45 inches: sandy loam
C5 - 45 to 65 inches: clay loam

Properties and qualities

Slope: 0 to 3 percent
Depth to restrictive feature: More than 80 inches
Natural drainage class: Well drained
Runoff class: Medium
Capacity of the most limiting layer to transmit water (Ksat): Moderately high (0.20 to 0.57 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: Frequent
Frequency of ponding: None
Calcium carbonate, maximum in profile: 5 percent
Salinity, maximum in profile: Very slightly saline to slightly saline (2.0 to 4.0 mmhos/cm)
Sodium adsorption ratio, maximum in profile: 10.0
Available water storage in profile: High (about 10.7 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 6c
Hydrologic Soil Group: C
Ecological site: Bottomland (R035XA118NM)
Hydric soil rating: No

Description of Zia

Setting

Landform: Alluvial fans on valley sides, stream terraces on valley floors
Landform position (three-dimensional): Side slope, tread, rise
Down-slope shape: Linear, concave
Across-slope shape: Linear, concave
Parent material: Eolian deposits over fan and stream alluvium derived from calcareous sandstone

Typical profile

A - 0 to 3 inches: fine sandy loam
Bw - 3 to 12 inches: fine sandy loam
2C1 - 12 to 20 inches: fine sandy loam
2C2 - 20 to 28 inches: sandy loam
2C3 - 28 to 70 inches: fine sandy loam

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Properties and qualities

Slope: 1 to 3 percent
Depth to restrictive feature: More than 80 inches
Natural drainage class: Somewhat excessively drained
Runoff class: Very low
Capacity of the most limiting layer to transmit water (Ksat): High (1.98 to 5.95 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: Rare
Frequency of ponding: None
Calcium carbonate, maximum in profile: 5 percent
Salinity, maximum in profile: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Sodium adsorption ratio, maximum in profile: 2.0
Available water storage in profile: Moderate (about 8.1 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 6c
Hydrologic Soil Group: A
Ecological site: Sandy (R035XA113NM)
Hydric soil rating: No

Minor Components

Penistaja

Percent of map unit: 2 percent
Ecological site: Loamy (R035XA112NM)
Other vegetative classification: Loamy (null_13)
Hydric soil rating: No

Querencia

Percent of map unit: 2 percent
Ecological site: Loamy (R035XA112NM)
Other vegetative classification: Loamy (null_13)
Hydric soil rating: No

Escawetter

Percent of map unit: 1 percent
Landform: Flood plains
Landform position (three-dimensional): Side slope
Down-slope shape: Linear
Across-slope shape: Linear
Ecological site: Sandy Bottom 6-10" p.z. Perennial (Provisional) (R035XB273AZ)
Hydric soil rating: Yes

241—Mentmore loam, 1 to 8 percent slopes

Map Unit Setting

National map unit symbol: 1xn9
Elevation: 6,100 to 6,900 feet
Mean annual precipitation: 10 to 13 inches
Mean annual air temperature: 45 to 49 degrees F
Frost-free period: 100 to 135 days
Farmland classification: Not prime farmland

Map Unit Composition

Mentmore and similar soils: 85 percent
Atrac and similar soils: 10 percent
Minor components: 5 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Mentmore

Setting

Landform: Drainageways, fan remnants on valley sides, dip slopes on cuestas
Landform position (three-dimensional): Side slope, tread, dip
Down-slope shape: Linear, convex, concave
Across-slope shape: Convex, concave
Parent material: Fan and slope alluvium derived from sandstone and shale

Typical profile

A - 0 to 1 inches: loam
Bt1 - 1 to 2 inches: clay loam
Bt2 - 2 to 7 inches: sandy clay loam
Btk1 - 7 to 13 inches: clay loam
Btk2 - 13 to 22 inches: clay loam
Bk - 22 to 70 inches: clay loam

Properties and qualities

Slope: 1 to 8 percent
Depth to restrictive feature: More than 80 inches
Natural drainage class: Well drained
Runoff class: Medium
Capacity of the most limiting layer to transmit water (Ksat): Moderately high (0.20 to 0.57 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum in profile: 10 percent
Salinity, maximum in profile: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Available water storage in profile: High (about 11.7 inches)

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Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 6c
Hydrologic Soil Group: C
Ecological site: Loamy (R036XB006NM)
Hydric soil rating: No

Description of Atrac

Properties and qualities

Slope: 1 to 8 percent
Depth to restrictive feature: More than 80 inches
Natural drainage class: Well drained
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None

Interpretive groups

Land capability classification (irrigated): None specified
Ecological site: Loamy (R035XA112NM)
Other vegetative classification: Loamy (null_13)
Hydric soil rating: No

Minor Components

Gish

Percent of map unit: 5 percent
Ecological site: Clayey (R035XA128NM)
Other vegetative classification: Clayey (null_7)
Hydric soil rating: No

242—Gish-Mentmore complex, 1 to 8 percent slopes

Map Unit Setting

National map unit symbol: 1xnc
Elevation: 6,100 to 7,200 feet
Mean annual precipitation: 10 to 13 inches
Mean annual air temperature: 46 to 49 degrees F
Frost-free period: 100 to 135 days
Farmland classification: Not prime farmland

Map Unit Composition

Gish and similar soils: 45 percent
Mentmore and similar soils: 35 percent
Minor components: 20 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

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Description of Gish

Setting

Landform: Alluvial fans on valley sides, drainageways
Landform position (three-dimensional): Side slope, rise, dip
Down-slope shape: Linear, concave
Across-slope shape: Linear, concave, convex
Parent material: Fan alluvium derived from shale

Typical profile

A - 0 to 3 inches: clay loam
Bw - 3 to 13 inches: clay
Bky1 - 13 to 27 inches: clay
Bky2 - 27 to 55 inches: clay
Bky3 - 55 to 64 inches: clay loam
Bky4 - 64 to 70 inches: clay

Properties and qualities

Slope: 1 to 8 percent
Depth to restrictive feature: More than 80 inches
Natural drainage class: Well drained
Runoff class: High
Capacity of the most limiting layer to transmit water (Ksat): Moderately low to moderately high (0.06 to 0.20 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: Rare
Frequency of ponding: None
Calcium carbonate, maximum in profile: 10 percent
Gypsum, maximum in profile: 2 percent
Salinity, maximum in profile: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Sodium adsorption ratio, maximum in profile: 2.0
Available water storage in profile: High (about 9.4 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 6c
Hydrologic Soil Group: C
Ecological site: Clayey (R036XB002NM)
Hydric soil rating: No

Description of Mentmore

Setting

Landform: Fan remnants on valley sides
Landform position (three-dimensional): Side slope, tread
Down-slope shape: Convex, concave
Across-slope shape: Convex, concave
Parent material: Fan and slope alluvium derived from sandstone and shale

Typical profile

A - 0 to 2 inches: fine sandy loam
Bw - 2 to 4 inches: clay loam
Bt1 - 4 to 13 inches: clay loam
Bt2 - 13 to 24 inches: clay loam
Bk1 - 24 to 44 inches: clay loam

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Bk2 - 44 to 62 inches: clay loam

By - 62 to 70 inches: clay loam

Properties and qualities

Slope: 1 to 8 percent

Depth to restrictive feature: More than 80 inches

Natural drainage class: Well drained

Runoff class: Medium

Capacity of the most limiting layer to transmit water (Ksat): Moderately high (0.20 to 0.57 in/hr)

Depth to water table: More than 80 inches

Frequency of flooding: None

Frequency of ponding: None

Calcium carbonate, maximum in profile: 5 percent

Gypsum, maximum in profile: 2 percent

Salinity, maximum in profile: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)

Available water storage in profile: High (about 11.9 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 6c

Hydrologic Soil Group: C

Ecological site: Loamy (R036XB006NM)

Hydric soil rating: No

Minor Components

Berryhill

Percent of map unit: 10 percent

Ecological site: Clayey (R036XB002NM)

Other vegetative classification: Clayey (null_7)

Hydric soil rating: No

Nahodish

Percent of map unit: 10 percent

Ecological site: Salty Bottomland (R036XB010NM)

Other vegetative classification: SALTY BOTTOMLAND (null_27)

Hydric soil rating: No

244—Buckle fine sandy loam, 1 to 8 percent slopes

Map Unit Setting

National map unit symbol: 1xn3

Elevation: 6,400 to 6,800 feet

Mean annual precipitation: 10 to 13 inches

Mean annual air temperature: 45 to 49 degrees F

Frost-free period: 100 to 135 days

Farmland classification: Not prime farmland

Custom Soil Resource Report

Map Unit Composition

Buckle and similar soils: 85 percent

Minor components: 15 percent

Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Buckle

Setting

Landform: Drainageways, fan remnants on valley sides

Landform position (three-dimensional): Side slope, tread, dip

Down-slope shape: Concave, linear, convex

Across-slope shape: Concave, convex

Parent material: Eolian deposits over fan and slope alluvium derived from sandstone and shale

Typical profile

A - 0 to 4 inches: fine sandy loam

Bt1 - 4 to 14 inches: sandy clay loam

Bt2 - 14 to 22 inches: sandy clay loam

Btk1 - 22 to 34 inches: loam

Btk2 - 34 to 48 inches: clay loam

Btk3 - 48 to 62 inches: clay loam

Btk4 - 62 to 75 inches: clay loam

Properties and qualities

Slope: 1 to 8 percent

Depth to restrictive feature: More than 80 inches

Natural drainage class: Well drained

Runoff class: Low

Capacity of the most limiting layer to transmit water (Ksat): Moderately high (0.20 to 0.57 in/hr)

Depth to water table: More than 80 inches

Frequency of flooding: None

Frequency of ponding: None

Calcium carbonate, maximum in profile: 5 percent

Gypsum, maximum in profile: 1 percent

Salinity, maximum in profile: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)

Available water storage in profile: High (about 10.5 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 6c

Hydrologic Soil Group: C

Ecological site: Loamy (R036XB006NM)

Hydric soil rating: No

Minor Components

Gapmesa

Percent of map unit: 10 percent

Ecological site: Loamy (R035XA112NM)

Other vegetative classification: Loamy (null_13)

Hydric soil rating: No

Custom Soil Resource Report

Zia

Percent of map unit: 5 percent
Ecological site: Sandy (R035XA113NM)
Other vegetative classification: Sandy (null_29)
Hydric soil rating: No

245—Buckle-Gapmesa-Barboncito complex, 1 to 6 percent slopes

Map Unit Setting

National map unit symbol: 1xn4
Elevation: 6,400 to 6,800 feet
Mean annual precipitation: 10 to 13 inches
Mean annual air temperature: 45 to 49 degrees F
Frost-free period: 100 to 135 days
Farmland classification: Not prime farmland

Map Unit Composition

Buckle and similar soils: 35 percent
Gapmesa and similar soils: 30 percent
Barboncito and similar soils: 25 percent
Minor components: 10 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Buckle

Setting

Landform: Hills, ridges, dip slopes on cuestas
Landform position (two-dimensional): Backslope, footslope, shoulder, toeslope
Landform position (three-dimensional): Crest, nose slope, side slope, head slope
Down-slope shape: Convex
Across-slope shape: Convex, concave
Parent material: Eolian deposits over fan and slope alluvium derived from sandstone and shale

Typical profile

A - 0 to 1 inches: loamy fine sand
Bt1 - 1 to 7 inches: clay loam
Bt2 - 7 to 25 inches: sandy clay loam
Btk - 25 to 35 inches: clay loam
Bk - 35 to 80 inches: fine sandy loam

Properties and qualities

Slope: 1 to 6 percent
Depth to restrictive feature: More than 80 inches
Natural drainage class: Well drained
Runoff class: Medium
Capacity of the most limiting layer to transmit water (Ksat): Moderately high (0.20 to 0.57 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None

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Frequency of ponding: None
Calcium carbonate, maximum in profile: 10 percent
Salinity, maximum in profile: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Available water storage in profile: High (about 9.5 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 6c
Hydrologic Soil Group: C
Ecological site: Loamy (R036XB006NM)
Hydric soil rating: No

Description of Gapmesa

Setting

Landform: Ridges, dip slopes on cuestas, hills
Landform position (two-dimensional): Backslope, footslope, shoulder, toeslope
Landform position (three-dimensional): Side slope, crest, nose slope, head slope
Down-slope shape: Convex
Across-slope shape: Convex, concave
Parent material: Eolian deposits over alluvium derived from sandstone and shale

Typical profile

A - 0 to 1 inches: fine sandy loam
Bt - 1 to 9 inches: loam
Btk1 - 9 to 20 inches: loam
Btk2 - 20 to 31 inches: clay loam
R - 31 to 40 inches: bedrock

Properties and qualities

Slope: 1 to 3 percent
Depth to restrictive feature: 20 to 40 inches to lithic bedrock
Natural drainage class: Well drained
Runoff class: High
Capacity of the most limiting layer to transmit water (Ksat): Very low to moderately low (0.00 to 0.06 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum in profile: 5 percent
Gypsum, maximum in profile: 1 percent
Salinity, maximum in profile: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Available water storage in profile: Low (about 5.6 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 6c
Hydrologic Soil Group: C
Ecological site: Loamy (R036XB006NM)
Hydric soil rating: No

Description of Barboncito

Setting

Landform: Ridges, dip slopes on cuestas, hills

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Landform position (two-dimensional): Backslope, footslope, shoulder, toeslope

Landform position (three-dimensional): Side slope, crest, nose slope, head slope

Down-slope shape: Convex

Across-slope shape: Convex, concave

Parent material: Eolian deposits over slope alluvium derived from sandstone and shale

Typical profile

A - 0 to 2 inches: loamy fine sand

Bt - 2 to 6 inches: sandy clay loam

Btk - 6 to 11 inches: clay loam

R - 11 to 20 inches: bedrock

Properties and qualities

Slope: 1 to 3 percent

Depth to restrictive feature: 10 to 20 inches to lithic bedrock

Natural drainage class: Well drained

Runoff class: Very high

Capacity of the most limiting layer to transmit water (Ksat): Very low to moderately low (0.00 to 0.06 in/hr)

Depth to water table: More than 80 inches

Frequency of flooding: None

Frequency of ponding: None

Calcium carbonate, maximum in profile: 5 percent

Salinity, maximum in profile: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)

Available water storage in profile: Very low (about 1.8 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 7s

Hydrologic Soil Group: D

Ecological site: Loamy (R036XB006NM)

Hydric soil rating: No

Minor Components

Bettonie

Percent of map unit: 5 percent

Ecological site: Sandy (R035XA113NM)

Other vegetative classification: Sandy (null_29)

Hydric soil rating: No

Rock outcrop

Percent of map unit: 5 percent

Hydric soil rating: No

258—Eagleye-Atchee-Rock outcrop complex, 2 to 35 percent slopes

Map Unit Setting

National map unit symbol: 1xnd
Elevation: 6,500 to 7,000 feet
Mean annual precipitation: 10 to 13 inches
Mean annual air temperature: 46 to 49 degrees F
Frost-free period: 100 to 135 days
Farmland classification: Not prime farmland

Map Unit Composition

Eagleye and similar soils: 40 percent
Atchee and similar soils: 35 percent
Rock outcrop: 20 percent
Minor components: 5 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Eagleye

Setting

Landform: Ridges, hills
Landform position (two-dimensional): Backslope, footslope, shoulder, toeslope
Landform position (three-dimensional): Side slope, crest, nose slope, head slope
Down-slope shape: Convex
Across-slope shape: Convex
Parent material: Slope alluvium over residuum weathered from shale

Typical profile

A - 0 to 2 inches: gravelly clay loam
Cy - 2 to 10 inches: clay
Cr - 10 to 20 inches: bedrock

Properties and qualities

Slope: 5 to 35 percent
Depth to restrictive feature: 5 to 20 inches to paralithic bedrock
Natural drainage class: Well drained
Runoff class: Very high
Capacity of the most limiting layer to transmit water (Ksat): Very low to moderately low (0.00 to 0.06 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Gypsum, maximum in profile: 2 percent
Salinity, maximum in profile: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Sodium adsorption ratio, maximum in profile: 1.0
Available water storage in profile: Very low (about 1.6 inches)

Custom Soil Resource Report

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 7e
Hydrologic Soil Group: D
Ecological site: Clayey (R036XB002NM)
Hydric soil rating: No

Description of Atchee

Setting

Landform: Ridges, hills
Landform position (two-dimensional): Backslope, footslope, shoulder, toeslope
Landform position (three-dimensional): Side slope, crest, nose slope, head slope
Down-slope shape: Convex
Across-slope shape: Convex
Parent material: Slope alluvium over residuum weathered from sandstone and shale

Typical profile

A - 0 to 2 inches: fine sandy loam
C1 - 2 to 12 inches: extremely channery sandy clay loam
C2 - 12 to 14 inches: extremely channery sandy clay loam
R - 14 to 20 inches: bedrock

Properties and qualities

Slope: 2 to 10 percent
Depth to restrictive feature: 5 to 20 inches to lithic bedrock
Natural drainage class: Well drained
Runoff class: Very high
Capacity of the most limiting layer to transmit water (Ksat): Very low to moderately low (0.00 to 0.06 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum in profile: 1 percent
Salinity, maximum in profile: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Sodium adsorption ratio, maximum in profile: 1.0
Available water storage in profile: Very low (about 1.3 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 7s
Hydrologic Soil Group: D
Ecological site: Clayey (R036XB002NM)
Hydric soil rating: No

Description of Rock Outcrop

Typical profile

R - 0 to 60 inches: bedrock

Properties and qualities

Depth to restrictive feature: 0 inches to lithic bedrock
Capacity of the most limiting layer to transmit water (Ksat): Very low to moderately high (0.00 to 0.20 in/hr)

Custom Soil Resource Report

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 8s

Hydric soil rating: No

Minor Components

Lockerby

Percent of map unit: 3 percent

Ecological site: Clayey (R035XA128NM)

Other vegetative classification: Clayey (null_7)

Hydric soil rating: No

Barboncito

Percent of map unit: 2 percent

Ecological site: Loamy (R035XA112NM)

Other vegetative classification: Loamy (null_13)

Hydric soil rating: No

265—Uranium mined lands

Map Unit Composition

Uranium mined lands: 95 percent

Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Uranium Mined Lands

Typical profile

C - 0 to 60 inches: variable

290—Rock outcrop-Westmion-Skyvillage complex, 30 to 80 percent slopes

Map Unit Setting

National map unit symbol: 1xkk

Elevation: 6,400 to 8,100 feet

Mean annual precipitation: 10 to 13 inches

Mean annual air temperature: 49 to 54 degrees F

Frost-free period: 120 to 140 days

Farmland classification: Not prime farmland

Map Unit Composition

Rock outcrop: 45 percent

Westmion and similar soils: 30 percent

Custom Soil Resource Report

Skyvillage and similar soils: 15 percent

Minor components: 10 percent

Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Rock Outcrop

Typical profile

R - 0 to 60 inches: bedrock

Properties and qualities

Depth to restrictive feature: 0 inches to lithic bedrock

Capacity of the most limiting layer to transmit water (Ksat): Very low to moderately high (0.00 to 0.20 in/hr)

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 8s

Hydric soil rating: No

Description of Westmion

Setting

Landform: Escarpments on cuestas, escarpments on mesas

Landform position (three-dimensional): Side slope, tal

Down-slope shape: Convex

Across-slope shape: Linear, convex

Parent material: Slope alluvium and colluvium over residuum weathered from shale

Typical profile

A - 0 to 2 inches: gravelly clay loam

2C - 2 to 14 inches: clay

2Cr - 14 to 20 inches: bedrock

Properties and qualities

Slope: 30 to 50 percent

Depth to restrictive feature: 5 to 20 inches to paralithic bedrock

Natural drainage class: Well drained

Runoff class: Very high

Capacity of the most limiting layer to transmit water (Ksat): Very low to moderately high (0.00 to 0.20 in/hr)

Depth to water table: More than 80 inches

Frequency of flooding: None

Frequency of ponding: None

Calcium carbonate, maximum in profile: 5 percent

Gypsum, maximum in profile: 2 percent

Salinity, maximum in profile: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)

Sodium adsorption ratio, maximum in profile: 5.0

Available water storage in profile: Very low (about 2.1 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 7e

Hydrologic Soil Group: D

Ecological site: Foothills (R035XA131NM)

Hydric soil rating: No

Custom Soil Resource Report

Description of Skyvillage

Setting

Landform: Escarpments on cuestas, escarpments on mesas

Landform position (three-dimensional): Side slope, talf

Down-slope shape: Convex

Across-slope shape: Convex, linear

Parent material: Eolian deposits over slope alluvium derived from sandstone

Typical profile

A - 0 to 2 inches: sandy loam

C - 2 to 13 inches: sandy loam

R - 13 to 20 inches: bedrock

Properties and qualities

Slope: 30 to 40 percent

Depth to restrictive feature: 5 to 20 inches to lithic bedrock

Natural drainage class: Well drained

Runoff class: Medium

Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.20 to 2.00 in/hr)

Depth to water table: More than 80 inches

Frequency of flooding: None

Frequency of ponding: None

Calcium carbonate, maximum in profile: 15 percent

Salinity, maximum in profile: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)

Available water storage in profile: Very low (about 1.6 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 7s

Hydrologic Soil Group: D

Ecological site: Shallow Sandstone (R035XG121NM)

Hydric soil rating: No

Minor Components

Hospah

Percent of map unit: 6 percent

Ecological site: Shale Hills 10-14" p.z. (Provisional) (R035XA130NM)

Other vegetative classification: Shale Hills (null_35)

Hydric soil rating: No

Vessilla

Percent of map unit: 2 percent

Ecological site: Sandy Upland 13-17" p.z. Moderately Deep (R035XF618AZ)

Other vegetative classification: Shallow Sandstone (null_37)

Hydric soil rating: No

Skyvillage

Percent of map unit: 2 percent

Ecological site: Shallow Sandstone (R035XG121NM)

Hydric soil rating: No

291—Rock outcrop-Eagleeye-Atchee complex, 35 to 70 percent slopes

Map Unit Setting

National map unit symbol: 1xnf
Elevation: 6,500 to 7,500 feet
Mean annual precipitation: 10 to 13 inches
Mean annual air temperature: 46 to 49 degrees F
Frost-free period: 100 to 135 days
Farmland classification: Not prime farmland

Map Unit Composition

Rock outcrop: 50 percent
Eagleeye and similar soils: 25 percent
Atchee and similar soils: 15 percent
Minor components: 10 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Rock Outcrop

Typical profile

R - 0 to 60 inches: bedrock

Properties and qualities

Depth to restrictive feature: 0 inches to lithic bedrock
Capacity of the most limiting layer to transmit water (Ksat): Very low to moderately high (0.00 to 0.20 in/hr)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 8s
Hydric soil rating: No

Description of Eagleeye

Setting

Landform: Escarpments on cuestas, escarpments on mesas
Landform position (three-dimensional): Side slope, tal
Down-slope shape: Convex
Across-slope shape: Convex, linear
Parent material: Slope alluvium over residuum weathered from shale

Typical profile

A - 0 to 2 inches: very gravelly silty clay loam
C1 - 2 to 7 inches: silty clay loam
C2 - 7 to 13 inches: silty clay loam
Cr - 13 to 20 inches: bedrock

Custom Soil Resource Report

Properties and qualities

Slope: 35 to 70 percent
Depth to restrictive feature: 5 to 20 inches to paralithic bedrock
Natural drainage class: Well drained
Runoff class: Very high
Capacity of the most limiting layer to transmit water (Ksat): Very low to moderately low (0.00 to 0.01 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Gypsum, maximum in profile: 2 percent
Salinity, maximum in profile: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Available water storage in profile: Very low (about 2.6 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 7e
Hydrologic Soil Group: D
Ecological site: Clayey (R036XB002NM)
Hydric soil rating: No

Description of Atchee

Setting

Landform: Escarpments on cuestas, escarpments on mesas
Landform position (three-dimensional): Side slope, talf
Down-slope shape: Convex
Across-slope shape: Convex, linear
Parent material: Slope alluvium over residuum weathered from sandstone

Typical profile

A - 0 to 2 inches: very gravelly fine sandy loam
C - 2 to 8 inches: very channery fine sandy loam
R - 8 to 20 inches: bedrock

Properties and qualities

Slope: 35 to 50 percent
Depth to restrictive feature: 5 to 20 inches to lithic bedrock
Natural drainage class: Well drained
Runoff class: Medium
Capacity of the most limiting layer to transmit water (Ksat): Very low to moderately low (0.00 to 0.01 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum in profile: 5 percent
Salinity, maximum in profile: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Available water storage in profile: Very low (about 1.1 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 7e
Hydrologic Soil Group: D
Ecological site: Clayey (R036XB002NM)

Custom Soil Resource Report

Hydric soil rating: No

Minor Components

Gapmesa

Percent of map unit: 5 percent

Ecological site: Loamy (R035XA112NM)

Other vegetative classification: Loamy (null_13)

Hydric soil rating: No

Atchee

Percent of map unit: 5 percent

Ecological site: Clayey (R035XA128NM)

Hydric soil rating: No

305—Celavar-Atarque complex, 1 to 8 percent slopes

Map Unit Setting

National map unit symbol: 1xkn

Elevation: 6,500 to 7,500 feet

Mean annual precipitation: 13 to 14 inches

Mean annual air temperature: 49 to 53 degrees F

Frost-free period: 115 to 135 days

Farmland classification: Not prime farmland

Map Unit Composition

Celavar and similar soils: 50 percent

Atarque and similar soils: 35 percent

Minor components: 15 percent

Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Celavar

Setting

Landform: Mesas, dip slopes on cuestas

Landform position (three-dimensional): Side slope, tal

Down-slope shape: Convex

Across-slope shape: Convex, linear, concave

Parent material: Eolian deposits over slope alluvium derived from sandstone and shale

Typical profile

A - 0 to 2 inches: loam

Bt1 - 2 to 24 inches: sandy clay loam

Bt2 - 24 to 31 inches: sandy clay loam

2R - 31 to 40 inches: bedrock

Properties and qualities

Slope: 1 to 8 percent

Custom Soil Resource Report

Depth to restrictive feature: 20 to 40 inches to lithic bedrock
Natural drainage class: Well drained
Runoff class: Low
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.20 to 1.98 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum in profile: 5 percent
Salinity, maximum in profile: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Available water storage in profile: Low (about 4.7 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 6c
Hydrologic Soil Group: C
Ecological site: Twoneedle Pinyon/Oneseed Juniper Woodland - Zuni 13 to 17 inches (F035XG001NM)
Hydric soil rating: No

Description of Atarque

Setting

Landform: Dip slopes on cuestas, mesas
Landform position (three-dimensional): Side slope, talf
Down-slope shape: Convex
Across-slope shape: Concave, convex, linear
Parent material: Eolian deposits over slope alluvium derived from sandstone and shale

Typical profile

A - 0 to 3 inches: sandy loam
Bt - 3 to 14 inches: sandy clay loam
2R - 14 to 20 inches: bedrock

Properties and qualities

Slope: 1 to 8 percent
Depth to restrictive feature: 10 to 20 inches to lithic bedrock
Natural drainage class: Well drained
Runoff class: High
Capacity of the most limiting layer to transmit water (Ksat): Very low to moderately high (0.00 to 0.20 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum in profile: 5 percent
Salinity, maximum in profile: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Available water storage in profile: Very low (about 2.0 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 7s
Hydrologic Soil Group: D
Ecological site: Shallow Sandstone (R035XG121NM)
Hydric soil rating: No

Custom Soil Resource Report

Minor Components

Rock outcrop

Percent of map unit: 9 percent
Hydric soil rating: No

Flugle

Percent of map unit: 6 percent
Ecological site: Loamy (R035XA112NM)
Other vegetative classification: Loamy (null_13)
Hydric soil rating: No

310—Parkelei sandy loam, 1 to 8 percent slopes

Map Unit Setting

National map unit symbol: 1xkq
Elevation: 6,500 to 7,800 feet
Mean annual precipitation: 13 to 16 inches
Mean annual air temperature: 46 to 49 degrees F
Frost-free period: 100 to 135 days
Farmland classification: Farmland of local importance

Map Unit Composition

Parkelei and similar soils: 80 percent
Minor components: 20 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Parkelei

Setting

Landform: Mesas, dip slopes on cuestas, drainageways
Landform position (three-dimensional): Side slope, talf, dip
Down-slope shape: Convex, linear
Across-slope shape: Linear, concave, convex
Parent material: Eolian deposits over slope alluvium derived from sandstone and shale

Typical profile

A - 0 to 2 inches: sandy loam
Bt - 2 to 21 inches: sandy clay loam
Btk1 - 21 to 55 inches: sandy clay loam
Btk2 - 55 to 65 inches: clay loam

Properties and qualities

Slope: 1 to 8 percent
Depth to restrictive feature: More than 80 inches
Natural drainage class: Well drained
Runoff class: Low

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Capacity of the most limiting layer to transmit water (Ksat): Moderately high (0.20 to 0.57 in/hr)

Depth to water table: More than 80 inches

Frequency of flooding: None

Frequency of ponding: None

Calcium carbonate, maximum in profile: 10 percent

Salinity, maximum in profile: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)

Available water storage in profile: High (about 9.2 inches)

Interpretive groups

Land capability classification (irrigated): 3c

Land capability classification (nonirrigated): 6c

Hydrologic Soil Group: B

Ecological site: Loamy (R036XB006NM)

Hydric soil rating: No

Minor Components

Fraguni

Percent of map unit: 10 percent

Ecological site: Sandy (R035XA113NM)

Other vegetative classification: Sandy (null_29)

Hydric soil rating: No

Evpark

Percent of map unit: 5 percent

Ecological site: Loamy (R035XA112NM)

Other vegetative classification: Loamy (null_13)

Hydric soil rating: No

Galzuni

Percent of map unit: 3 percent

Ecological site: Clayey (R035XA128NM)

Other vegetative classification: Clayey (null_7)

Hydric soil rating: No

Bryway

Percent of map unit: 2 percent

Ecological site: Loamy (R035XA112NM)

Other vegetative classification: Loamy (null_13)

Hydric soil rating: No

315—Flugle-Fragua complex, 1 to 10 percent slopes

Map Unit Setting

National map unit symbol: 1xks

Elevation: 6,400 to 7,300 feet

Mean annual precipitation: 13 to 14 inches

Mean annual air temperature: 49 to 53 degrees F

Frost-free period: 115 to 135 days

Custom Soil Resource Report

Farmland classification: Not prime farmland

Map Unit Composition

Flugle and similar soils: 50 percent

Fragua and similar soils: 40 percent

Minor components: 10 percent

Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Flugle

Setting

Landform: Mesas, dip slopes on cuestas, fan remnants on valley sides

Landform position (three-dimensional): Side slope, tread, talf

Down-slope shape: Convex, concave

Across-slope shape: Linear, concave, convex

Parent material: Eolian deposits over fan and slope alluvium derived from sandstone and shale

Typical profile

A - 0 to 3 inches: loam

Bt1 - 3 to 10 inches: sandy clay loam

Bt2 - 10 to 28 inches: clay loam

Bk - 28 to 65 inches: sandy loam

Properties and qualities

Slope: 1 to 5 percent

Depth to restrictive feature: More than 80 inches

Natural drainage class: Well drained

Runoff class: Medium

Capacity of the most limiting layer to transmit water (Ksat): Moderately high (0.20 to 0.57 in/hr)

Depth to water table: More than 80 inches

Frequency of flooding: None

Frequency of ponding: None

Calcium carbonate, maximum in profile: 10 percent

Salinity, maximum in profile: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)

Available water storage in profile: Moderate (about 9.0 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 6c

Hydrologic Soil Group: C

Ecological site: Twoneedle Pinyon/Oneseed Juniper Woodland - Zuni 13 to 17 inches (F035XG001NM)

Other vegetative classification: pinyon-juniper forest (null_3)

Hydric soil rating: No

Description of Fragua

Setting

Landform: Dip slopes on cuestas, fan remnants on valley sides, mesas

Landform position (three-dimensional): Side slope, tread, talf

Down-slope shape: Concave, convex

Across-slope shape: Concave, convex, linear

Parent material: Eolian deposits over fan and slope alluvium derived from sandstone

Custom Soil Resource Report

Typical profile

A - 0 to 2 inches: loamy fine sand
Btk - 2 to 19 inches: sandy loam
Bk - 19 to 65 inches: sandy loam

Properties and qualities

Slope: 1 to 10 percent
Depth to restrictive feature: More than 80 inches
Natural drainage class: Somewhat excessively drained
Runoff class: Low
Capacity of the most limiting layer to transmit water (Ksat): High (1.98 to 5.95 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum in profile: 10 percent
Salinity, maximum in profile: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Available water storage in profile: Moderate (about 7.1 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 6c
Hydrologic Soil Group: A
Ecological site: Sandy Slopes (R036XB111NM)
Hydric soil rating: No

Minor Components

Celavar

Percent of map unit: 5 percent
Ecological site: Steep Gravelly - Woodland (F035XG135NM)
Other vegetative classification: Pinyon-Juniper Forest (null_21)
Hydric soil rating: No

Royosa

Percent of map unit: 5 percent
Ecological site: Malpais (R051XA009NM)
Hydric soil rating: No

317—Highdye-Evpark-Bryway complex, 2 to 20 percent slopes

Map Unit Setting

National map unit symbol: 1xkv
Elevation: 6,800 to 7,600 feet
Mean annual precipitation: 13 to 16 inches
Mean annual air temperature: 46 to 49 degrees F
Frost-free period: 100 to 135 days
Farmland classification: Not prime farmland

Custom Soil Resource Report

Map Unit Composition

Highdye and similar soils: 35 percent

Evpark and similar soils: 30 percent

Bryway and similar soils: 20 percent

Minor components: 15 percent

Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Highdye

Setting

Landform: Ridges, dip slopes on cuestas, hills, mesas

Landform position (two-dimensional): Backslope, footslope, shoulder, toeslope

Landform position (three-dimensional): Side slope, crest, nose slope, head slope, tal

Down-slope shape: Convex

Across-slope shape: Convex, concave, linear

Parent material: Eolian deposits and slope alluvium derived from sandstone over residuum weathered from shale

Typical profile

A - 0 to 3 inches: fine sandy loam

Bt1 - 3 to 5 inches: clay loam

2Bt2 - 5 to 12 inches: clay

2R - 12 to 20 inches: bedrock

Properties and qualities

Slope: 2 to 20 percent

Depth to restrictive feature: 5 to 20 inches to lithic bedrock

Natural drainage class: Well drained

Runoff class: High

Capacity of the most limiting layer to transmit water (Ksat): Moderately low to moderately high (0.06 to 0.57 in/hr)

Depth to water table: More than 80 inches

Frequency of flooding: None

Frequency of ponding: None

Available water storage in profile: Very low (about 1.8 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 7s

Hydrologic Soil Group: D

Ecological site: Gravelly - Woodland (F035XG134NM)

Other vegetative classification: pinyon-juniper forest (null_6)

Hydric soil rating: No

Description of Evpark

Setting

Landform: Dip slopes on cuestas, hills, mesas, ridges

Landform position (two-dimensional): Backslope, footslope, shoulder, toeslope

Landform position (three-dimensional): Side slope, crest, nose slope, head slope, tal

Down-slope shape: Convex

Across-slope shape: Concave, convex, linear

Parent material: Eolian deposits over slope alluvium derived from sandstone and shale

Custom Soil Resource Report

Typical profile

A - 0 to 5 inches: loam
Bt1 - 5 to 10 inches: clay loam
Bt2 - 10 to 24 inches: sandy clay loam
R - 24 to 40 inches: bedrock

Properties and qualities

Slope: 2 to 8 percent
Depth to restrictive feature: 20 to 40 inches to lithic bedrock
Natural drainage class: Well drained
Runoff class: High
Capacity of the most limiting layer to transmit water (Ksat): Moderately low to moderately high (0.06 to 0.57 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum in profile: 10 percent
Salinity, maximum in profile: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Available water storage in profile: Low (about 3.9 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 6c
Hydrologic Soil Group: C
Ecological site: Loamy (R035XA112NM)
Other vegetative classification: pinyon-juniper forest (null_6)
Hydric soil rating: No

Description of Bryway

Setting

Landform: Hills, mesas, ridges, dip slopes on cuestas
Landform position (two-dimensional): Backslope, footslope, shoulder, toeslope
Landform position (three-dimensional): Crest, nose slope, side slope, head slope, tal
Down-slope shape: Convex
Across-slope shape: Convex, linear, concave
Parent material: Slope alluvium derived from sandstone over residuum weathered from shale

Typical profile

A - 0 to 4 inches: sandy loam
Bt1 - 4 to 10 inches: clay
Bt2 - 10 to 23 inches: clay
2Cr - 23 to 40 inches: bedrock

Properties and qualities

Slope: 2 to 8 percent
Depth to restrictive feature: 20 to 40 inches to paralithic bedrock
Natural drainage class: Well drained
Runoff class: Very high
Capacity of the most limiting layer to transmit water (Ksat): Very low to moderately high (0.00 to 0.20 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None

Custom Soil Resource Report

Frequency of ponding: None
Calcium carbonate, maximum in profile: 5 percent
Available water storage in profile: Low (about 3.3 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 6c
Hydrologic Soil Group: D
Ecological site: Loamy (R035XA112NM)
Other vegetative classification: pinyon-juniper forest (null_6)
Hydric soil rating: No

Minor Components

Vessilla

Percent of map unit: 5 percent
Ecological site: Sandy Upland 13-17" p.z. Moderately Deep (R035XF618AZ)
Other vegetative classification: Shallow Sandstone (null_37)
Hydric soil rating: No

Galzuni

Percent of map unit: 5 percent
Ecological site: Clayey (R035XA128NM)
Other vegetative classification: Clayey (null_7)
Hydric soil rating: No

Parkelei

Percent of map unit: 5 percent
Ecological site: Gravelly - Woodland (F035XG134NM)
Other vegetative classification: Pinyon-Juniper Forest (null_21)
Hydric soil rating: No

320—Parkelei-Fraguni complex, 1 to 8 percent slopes

Map Unit Setting

National map unit symbol: 1xkw
Elevation: 6,500 to 7,500 feet
Mean annual precipitation: 13 to 16 inches
Mean annual air temperature: 46 to 49 degrees F
Frost-free period: 100 to 135 days
Farmland classification: Not prime farmland

Map Unit Composition

Parkelei and similar soils: 45 percent
Fraguni and similar soils: 40 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Custom Soil Resource Report

Description of Parkelei

Setting

Landform: Plateaus, mesas, dip slopes on cuestas, fan remnants on valley sides

Landform position (three-dimensional): Side slope, tread, talf

Down-slope shape: Convex, concave

Across-slope shape: Linear, convex, concave

Parent material: Eolian deposits over fan and slope alluvium derived from sandstone and shale

Typical profile

A - 0 to 4 inches: fine sandy loam

Bt1 - 4 to 18 inches: sandy clay loam

Bt2 - 18 to 28 inches: sandy clay loam

Bt3 - 28 to 39 inches: sandy clay loam

Btk - 39 to 52 inches: sandy clay loam

Bk - 52 to 70 inches: fine sandy loam

Properties and qualities

Slope: 1 to 8 percent

Depth to restrictive feature: More than 80 inches

Natural drainage class: Well drained

Runoff class: Low

Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.57 to 1.98 in/hr)

Depth to water table: More than 80 inches

Frequency of flooding: None

Frequency of ponding: None

Calcium carbonate, maximum in profile: 10 percent

Salinity, maximum in profile: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)

Available water storage in profile: Moderate (about 8.7 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 6c

Hydrologic Soil Group: B

Ecological site: Gravelly - Woodland (F035XG134NM)

Other vegetative classification: pinyon-juniper forest (null_6)

Hydric soil rating: No

Description of Fraguni

Setting

Landform: Plateaus, mesas, dip slopes on cuestas, fan remnants on valley sides

Landform position (three-dimensional): Side slope, tread, talf

Down-slope shape: Convex, concave

Across-slope shape: Linear, convex, concave

Parent material: Eolian deposits over fan and slope alluvium derived from sandstone

Typical profile

A - 0 to 4 inches: loamy fine sand

Bt1 - 4 to 20 inches: fine sandy loam

Bt2 - 20 to 46 inches: loamy fine sand

Bt3 - 46 to 58 inches: sandy clay loam

Custom Soil Resource Report

BC - 58 to 70 inches: fine sandy loam

Properties and qualities

Slope: 1 to 8 percent

Depth to restrictive feature: More than 80 inches

Natural drainage class: Somewhat excessively drained

Runoff class: Very low

Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.57 to 1.98 in/hr)

Depth to water table: More than 80 inches

Frequency of flooding: None

Frequency of ponding: None

Calcium carbonate, maximum in profile: 1 percent

Salinity, maximum in profile: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)

Available water storage in profile: Moderate (about 7.3 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 6c

Hydrologic Soil Group: A

Ecological site: Gravelly - Woodland (F035XG134NM)

Other vegetative classification: pinyon-juniper forest (null_6)

Hydric soil rating: No

Minor Components

Evpark

Percent of map unit: 8 percent

Ecological site: Loamy (R035XA112NM)

Other vegetative classification: Pinyon-Juniper Forest (null_21)

Hydric soil rating: No

Bryway

Percent of map unit: 7 percent

Ecological site: Loamy (R035XA112NM)

Other vegetative classification: Pinyon-Juniper Forest (null_21)

Hydric soil rating: No

332—Evpark-Arabrab complex, 2 to 6 percent slopes

Map Unit Setting

National map unit symbol: 1xky

Elevation: 6,800 to 8,000 feet

Mean annual precipitation: 13 to 16 inches

Mean annual air temperature: 46 to 49 degrees F

Frost-free period: 100 to 135 days

Farmland classification: Not prime farmland

Custom Soil Resource Report

Map Unit Composition

Evpark and similar soils: 50 percent

Arabrab and similar soils: 40 percent

Minor components: 10 percent

Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Evpark

Setting

Landform: Mesas, dip slopes on cuestas

Landform position (three-dimensional): Side slope, talf

Down-slope shape: Convex

Across-slope shape: Linear, concave, convex

Parent material: Eolian deposits over slope alluvium derived from sandstone and shale

Typical profile

A - 0 to 2 inches: fine sandy loam

Bt1 - 2 to 9 inches: loam

Bt2 - 9 to 36 inches: clay loam

R - 36 to 40 inches: bedrock

Properties and qualities

Slope: 2 to 6 percent

Depth to restrictive feature: 20 to 40 inches to lithic bedrock

Natural drainage class: Well drained

Runoff class: Medium

Capacity of the most limiting layer to transmit water (Ksat): Moderately low to moderately high (0.06 to 0.57 in/hr)

Depth to water table: More than 80 inches

Frequency of flooding: None

Frequency of ponding: None

Available water storage in profile: Moderate (about 7.0 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 6c

Hydrologic Soil Group: C

Ecological site: Loamy (R035XA112NM)

Other vegetative classification: pinyon-juniper forest (null_3)

Hydric soil rating: No

Description of Arabrab

Setting

Landform: Mesas, dip slopes on cuestas

Landform position (three-dimensional): Side slope, talf

Down-slope shape: Convex

Across-slope shape: Convex, linear, concave

Parent material: Eolian deposits and slope alluvium over residuum weathered from sandstone

Typical profile

A - 0 to 2 inches: gravelly fine sandy loam

Bt1 - 2 to 7 inches: sandy clay loam

Bt2 - 7 to 12 inches: clay loam

Custom Soil Resource Report

Btk - 12 to 17 inches: gravelly clay loam

R - 17 to 20 inches: bedrock

Properties and qualities

Slope: 2 to 6 percent

Depth to restrictive feature: 10 to 20 inches to lithic bedrock

Natural drainage class: Well drained

Runoff class: High

Capacity of the most limiting layer to transmit water (Ksat): Very low to moderately high (0.00 to 0.20 in/hr)

Depth to water table: More than 80 inches

Frequency of flooding: None

Frequency of ponding: None

Calcium carbonate, maximum in profile: 5 percent

Salinity, maximum in profile: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)

Available water storage in profile: Very low (about 2.9 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 7s

Hydrologic Soil Group: D

Ecological site: south of Gallup 13-16 (F036XA001NM)

Other vegetative classification: pinyon-juniper forest (null_3)

Hydric soil rating: No

Minor Components

Highdye

Percent of map unit: 5 percent

Ecological site: Gravelly - Woodland (F035XG134NM)

Other vegetative classification: Pinyon-Juniper Forest (null_21)

Hydric soil rating: No

Parkelei

Percent of map unit: 5 percent

Ecological site: Gravelly - Woodland (F035XG134NM)

Other vegetative classification: Pinyon-Juniper Forest (null_21)

Hydric soil rating: No

338—Zyme-Lockerby association, 5 to 35 percent slopes

Map Unit Setting

National map unit symbol: 1xn7

Elevation: 6,500 to 7,200 feet

Mean annual precipitation: 10 to 13 inches

Mean annual air temperature: 46 to 49 degrees F

Frost-free period: 100 to 135 days

Farmland classification: Not prime farmland

Custom Soil Resource Report

Map Unit Composition

Zyme and similar soils: 50 percent

Lockerby and similar soils: 40 percent

Minor components: 10 percent

Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Zyme

Setting

Landform: Ridges, hills

Landform position (two-dimensional): Backslope, footslope, shoulder, toeslope

Landform position (three-dimensional): Side slope, crest, nose slope, head slope

Down-slope shape: Convex

Across-slope shape: Convex

Parent material: Residuum weathered from shale

Typical profile

A - 0 to 3 inches: channery silty clay loam

Cky1 - 3 to 8 inches: silty clay

Cky2 - 8 to 15 inches: channery clay

Cr - 15 to 20 inches: bedrock

Properties and qualities

Slope: 5 to 35 percent

Depth to restrictive feature: 5 to 20 inches to paralithic bedrock

Natural drainage class: Well drained

Runoff class: Very high

Capacity of the most limiting layer to transmit water (Ksat): Very low to moderately low (0.00 to 0.06 in/hr)

Depth to water table: More than 80 inches

Frequency of flooding: None

Frequency of ponding: None

Calcium carbonate, maximum in profile: 5 percent

Gypsum, maximum in profile: 2 percent

Salinity, maximum in profile: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)

Available water storage in profile: Very low (about 2.4 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 7s

Hydrologic Soil Group: D

Ecological site: Clayey (R036XB002NM)

Hydric soil rating: No

Description of Lockerby

Setting

Landform: Hills, ridges

Landform position (two-dimensional): Backslope, footslope, shoulder, toeslope

Landform position (three-dimensional): Crest, nose slope, side slope, head slope

Down-slope shape: Convex

Across-slope shape: Convex

Parent material: Residuum weathered from shale

Custom Soil Resource Report

Typical profile

A - 0 to 1 inches: silty clay loam
Bw - 1 to 11 inches: clay
Bss - 11 to 15 inches: clay
Bssy - 15 to 26 inches: clay
Cr - 26 to 40 inches: bedrock

Properties and qualities

Slope: 5 to 15 percent
Depth to restrictive feature: 20 to 40 inches to paralithic bedrock
Natural drainage class: Well drained
Runoff class: Very high
Capacity of the most limiting layer to transmit water (Ksat): Very low to moderately low (0.00 to 0.06 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum in profile: 5 percent
Gypsum, maximum in profile: 1 percent
Salinity, maximum in profile: Nonsaline to slightly saline (0.0 to 4.0 mmhos/cm)
Sodium adsorption ratio, maximum in profile: 1.0
Available water storage in profile: Low (about 4.0 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 7e
Hydrologic Soil Group: D
Ecological site: Clayey (R036XB002NM)
Hydric soil rating: No

Minor Components

Rock outcrop

Percent of map unit: 6 percent
Hydric soil rating: No

Marianolake

Percent of map unit: 4 percent
Ecological site: Loamy (R035XA112NM)
Other vegetative classification: Loamy (null_13)
Hydric soil rating: No

350—Toldohn-Vessilla-Rock outcrop complex, 8 to 35 percent slopes

Map Unit Setting

National map unit symbol: 1x13
Elevation: 6,800 to 8,000 feet
Mean annual precipitation: 13 to 16 inches
Mean annual air temperature: 46 to 49 degrees F

Custom Soil Resource Report

Frost-free period: 100 to 135 days

Farmland classification: Not prime farmland

Map Unit Composition

Toldohn and similar soils: 35 percent

Vessilla and similar soils: 30 percent

Rock outcrop: 20 percent

Minor components: 15 percent

Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Toldohn

Setting

Landform: Breaks, ridges, hills

Landform position (two-dimensional): Backslope, footslope, shoulder, toeslope

Landform position (three-dimensional): Side slope, crest, nose slope, head slope

Down-slope shape: Convex

Across-slope shape: Convex

Parent material: Slope alluvium over residuum weathered from shale

Typical profile

A - 0 to 4 inches: gravelly clay loam

2BC - 4 to 11 inches: clay

2Cr - 11 to 20 inches: bedrock

Properties and qualities

Slope: 8 to 35 percent

Depth to restrictive feature: 5 to 20 inches to paralithic bedrock

Natural drainage class: Well drained

Runoff class: Very high

Capacity of the most limiting layer to transmit water (Ksat): Very low to moderately high (0.00 to 0.20 in/hr)

Depth to water table: More than 80 inches

Frequency of flooding: None

Frequency of ponding: None

Calcium carbonate, maximum in profile: 5 percent

Sodium adsorption ratio, maximum in profile: 2.0

Available water storage in profile: Very low (about 1.5 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 7s

Hydrologic Soil Group: D

Ecological site: Gravelly - Woodland (F035XG134NM)

Other vegetative classification: pinyon-juniper forest (null_3)

Hydric soil rating: No

Description of Vessilla

Setting

Landform: Structural benches on ridges, structural benches on hills, breaks

Landform position (two-dimensional): Backslope, footslope, shoulder, toeslope

Landform position (three-dimensional): Crest, nose slope, side slope, head slope, tread

Down-slope shape: Convex

Across-slope shape: Linear, convex

Parent material: Eolian deposits over slope alluvium derived from sandstone

Custom Soil Resource Report

Typical profile

A - 0 to 2 inches: fine sandy loam
C - 2 to 11 inches: fine sandy loam
2R - 11 to 20 inches: bedrock

Properties and qualities

Slope: 8 to 15 percent
Depth to restrictive feature: 5 to 20 inches to lithic bedrock
Natural drainage class: Somewhat excessively drained
Runoff class: Medium
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.20 to 2.00 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum in profile: 5 percent
Available water storage in profile: Very low (about 1.5 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 7s
Hydrologic Soil Group: D
Ecological site: Sandy Upland 13-17" p.z. Moderately Deep (R035XF618AZ)
Other vegetative classification: pinyon-juniper forest (null_3)
Hydric soil rating: No

Description of Rock Outcrop

Typical profile

R - 0 to 60 inches: bedrock

Properties and qualities

Depth to restrictive feature: 0 inches to lithic bedrock
Capacity of the most limiting layer to transmit water (Ksat): Very low to moderately high (0.00 to 0.20 in/hr)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 8s
Hydric soil rating: No

Minor Components

Galzuni

Percent of map unit: 5 percent
Ecological site: Clayey (R035XA128NM)
Other vegetative classification: Clayey (null_7)
Hydric soil rating: No

Parkelei

Percent of map unit: 5 percent
Ecological site: Gravelly - Woodland (F035XG134NM)
Other vegetative classification: Pinyon-Juniper Forest (null_21)
Hydric soil rating: No

Bryway

Percent of map unit: 5 percent
Ecological site: Loamy (R035XA112NM)

Custom Soil Resource Report

Other vegetative classification: Pinyon-Juniper Forest (null_21)
Hydric soil rating: No

351—Rock outcrop-Vessilla complex, 35 to 70 percent slopes

Map Unit Setting

National map unit symbol: 1x14
Elevation: 6,800 to 8,000 feet
Mean annual precipitation: 13 to 16 inches
Mean annual air temperature: 46 to 49 degrees F
Frost-free period: 100 to 135 days
Farmland classification: Not prime farmland

Map Unit Composition

Rock outcrop: 60 percent
Vessilla and similar soils: 30 percent
Minor components: 10 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Rock Outcrop

Typical profile

R - 0 to 60 inches: unweathered bedrock

Properties and qualities

Slope: 35 to 70 percent
Depth to restrictive feature: 0 inches to lithic bedrock
Capacity of the most limiting layer to transmit water (Ksat): Very low to moderately high (0.00 to 0.20 in/hr)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 8s
Hydric soil rating: No

Description of Vessilla

Setting

Landform: Escarpments on cuestas, escarpments on mesas
Landform position (three-dimensional): Side slope, talf
Down-slope shape: Convex
Across-slope shape: Linear, convex
Parent material: Eolian deposits over slope alluvium derived from sandstone

Typical profile

A - 0 to 5 inches: fine sandy loam
2R - 5 to 20 inches: unweathered bedrock

Custom Soil Resource Report

Properties and qualities

Slope: 35 to 70 percent
Depth to restrictive feature: 5 to 20 inches to lithic bedrock
Natural drainage class: Somewhat excessively drained
Runoff class: Medium
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.20 to 2.00 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum in profile: 5 percent
Available water storage in profile: Very low (about 0.7 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 7s
Hydrologic Soil Group: D
Ecological site: Shallow Loam (R036XB014NM)
Hydric soil rating: No

Minor Components

Rubble land

Percent of map unit: 3 percent
Hydric soil rating: No

Mido

Percent of map unit: 3 percent
Ecological site: Deep Sand (R035XA115NM)
Other vegetative classification: Deep Sand (null_9)
Hydric soil rating: No

Toldohn

Percent of map unit: 2 percent
Ecological site: Clayey (R035XA128NM)
Other vegetative classification: Clayey (null_7)
Hydric soil rating: No

Vessilla

Percent of map unit: 2 percent
Ecological site: Shallow Sandstone (R035XG121NM)
Hydric soil rating: No

352—Zia sandy loam, 1 to 5 percent slopes

Map Unit Setting

National map unit symbol: 2rd0s
Elevation: 6,000 to 6,800 feet
Mean annual precipitation: 10 to 14 inches
Mean annual air temperature: 49 to 53 degrees F

Custom Soil Resource Report

Frost-free period: 120 to 150 days
Farmland classification: Farmland of local importance

Map Unit Composition

Zia and similar soils: 80 percent
Minor components: 20 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Zia

Setting

Landform: Alluvial fans, stream terraces
Landform position (three-dimensional): Tread, rise
Down-slope shape: Linear, concave
Across-slope shape: Linear
Parent material: Eolian deposits derived from sandstone over alluvium derived from sandstone

Typical profile

A - 0 to 3 inches: sandy loam
C1 - 3 to 31 inches: sandy loam
C2 - 31 to 65 inches: fine sandy loam

Properties and qualities

Slope: 1 to 5 percent
Depth to restrictive feature: More than 80 inches
Natural drainage class: Somewhat excessively drained
Runoff class: Very low
Capacity of the most limiting layer to transmit water (Ksat): High (2.00 to 6.00 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum in profile: 5 percent
Salinity, maximum in profile: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Sodium adsorption ratio, maximum in profile: 2.0
Available water storage in profile: Moderate (about 7.2 inches)

Interpretive groups

Land capability classification (irrigated): 3e
Land capability classification (nonirrigated): 6c
Hydrologic Soil Group: A
Ecological site: Sandy Loam Upland 10-14" p.z. (R035XA117AZ)
Hydric soil rating: No

Minor Components

Mido

Percent of map unit: 10 percent
Landform: Dunes
Landform position (three-dimensional): Rise
Down-slope shape: Linear
Across-slope shape: Linear
Ecological site: Sandy Upland 10-14" p.z. (R035XA118AZ)
Other vegetative classification: Deep Sand (null_9)
Hydric soil rating: No

Custom Soil Resource Report

Penistaja

Percent of map unit: 5 percent
Landform: Fan remnants
Landform position (three-dimensional): Tread
Down-slope shape: Convex
Across-slope shape: Convex
Ecological site: Loamy Upland 10-14" p.z. (Provisional) (R035XA113AZ)
Other vegetative classification: Loamy (null_13)
Hydric soil rating: No

Aquima

Percent of map unit: 2 percent
Landform: Alluvial fans on valley sides, stream terraces on valley floors
Landform position (three-dimensional): Side slope, tread, talf
Down-slope shape: Convex, concave, linear
Across-slope shape: Convex, concave, linear
Ecological site: Loamy Wash 10-14" p.z. (R035XA112AZ)
Other vegetative classification: Loamy (null_13)
Hydric soil rating: No

San mateo

Percent of map unit: 2 percent
Landform: Flood plains
Landform position (three-dimensional): Tread
Down-slope shape: Linear
Across-slope shape: Linear
Ecological site: Loamy Wash 10-14" p.z. (R035XA112AZ)
Hydric soil rating: No

Sparank

Percent of map unit: 1 percent
Landform: Alluvial fans, flood plains
Landform position (three-dimensional): Tread, talf
Down-slope shape: Convex, linear
Across-slope shape: Convex, linear
Ecological site: Clay Loam Wash 10-14" p.z. (Provisional) (R035XA104AZ)
Hydric soil rating: No

355—Rizno-Tekapo-Rock outcrop complex, 2 to 45 percent slopes

Map Unit Setting

National map unit symbol: 1x18
Elevation: 6,200 to 6,700 feet
Mean annual precipitation: 10 to 13 inches
Mean annual air temperature: 49 to 54 degrees F
Frost-free period: 120 to 140 days
Famland classification: Not prime farmland

Map Unit Composition

Rizno and similar soils: 35 percent

Custom Soil Resource Report

Tekapo and similar soils: 30 percent

Rock outcrop: 20 percent

Minor components: 15 percent

Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Rizno

Setting

Landform: Structural benches, escarpments on cuestras, escarpments on mesas

Landform position (three-dimensional): Side slope, tread, talf

Down-slope shape: Convex

Across-slope shape: Linear, convex

Parent material: Eolian deposits over residuum weathered from sandstone

Typical profile

A - 0 to 3 inches: sandy loam

C - 3 to 8 inches: sandy loam

2R - 8 to 20 inches: bedrock

Properties and qualities

Slope: 2 to 20 percent

Depth to restrictive feature: 5 to 20 inches to lithic bedrock

Natural drainage class: Well drained

Runoff class: Medium

Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.20 to 2.00 in/hr)

Depth to water table: More than 80 inches

Frequency of flooding: None

Frequency of ponding: None

Calcium carbonate, maximum in profile: 5 percent

Salinity, maximum in profile: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)

Available water storage in profile: Very low (about 0.9 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 7s

Hydrologic Soil Group: D

Ecological site: Shallow Sandstone (R035XG121NM)

Hydric soil rating: No

Description of Tekapo

Setting

Landform: Ridges, escarpments on cuestras, escarpments on mesas

Landform position (three-dimensional): Side slope, talf

Down-slope shape: Convex

Across-slope shape: Convex, linear

Parent material: Slope alluvium and colluvium derived from siltstone over residuum weathered from shale

Typical profile

A - 0 to 2 inches: channery silty clay loam

C - 2 to 10 inches: silty clay

2Cr - 10 to 20 inches: bedrock

Properties and qualities

Slope: 10 to 45 percent

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Depth to restrictive feature: 5 to 20 inches to paralithic bedrock
Natural drainage class: Well drained
Runoff class: Very high
Capacity of the most limiting layer to transmit water (Ksat): Very low to moderately high (0.00 to 0.20 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum in profile: 5 percent
Salinity, maximum in profile: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Available water storage in profile: Very low (about 1.6 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 7s
Hydrologic Soil Group: D
Ecological site: Shale Hills 10-14"p.z. (Provisional) (R035XA130NM)
Hydric soil rating: No

Description of Rock Outcrop

Typical profile

R - 0 to 60 inches: bedrock

Properties and qualities

Depth to restrictive feature: 0 inches to lithic bedrock
Capacity of the most limiting layer to transmit water (Ksat): Very low to moderately high (0.00 to 0.20 in/hr)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 8s
Hydric soil rating: No

Minor Components

Aquima

Percent of map unit: 5 percent
Ecological site: Loamy (R035XA112NM)
Other vegetative classification: Loamy (null_13)
Hydric soil rating: No

Mido

Percent of map unit: 5 percent
Ecological site: Deep Sand (R035XA115NM)
Other vegetative classification: Deep Sand (null_9)
Hydric soil rating: No

Monpark

Percent of map unit: 5 percent
Ecological site: Clayey (R035XA128NM)
Other vegetative classification: Clayey (null_7)
Hydric soil rating: No

360—Hosta-Concho association, 0 to 5 percent slopes

Map Unit Setting

National map unit symbol: 1xlb
Elevation: 6,800 to 7,000 feet
Mean annual precipitation: 13 to 16 inches
Mean annual air temperature: 46 to 49 degrees F
Frost-free period: 100 to 135 days
Farmland classification: Not prime farmland

Map Unit Composition

Hosta and similar soils: 45 percent
Concho and similar soils: 40 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Hosta

Setting

Landform: Fan remnants on valley sides, drainageways
Landform position (three-dimensional): Side slope, tread, dip
Down-slope shape: Convex, concave, linear
Across-slope shape: Convex, concave
Parent material: Fan alluvium derived from sandstone and shale

Typical profile

A - 0 to 2 inches: loam
Bt - 2 to 4 inches: clay loam
Btk1 - 4 to 24 inches: clay loam
Btk2 - 24 to 51 inches: clay
Bk - 51 to 65 inches: sandy clay loam

Properties and qualities

Slope: 1 to 5 percent
Depth to restrictive feature: More than 80 inches
Natural drainage class: Well drained
Runoff class: Medium
Capacity of the most limiting layer to transmit water (Ksat): Moderately low to moderately high (0.06 to 0.20 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum in profile: 5 percent
Salinity, maximum in profile: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Sodium adsorption ratio, maximum in profile: 2.0
Available water storage in profile: High (about 10.1 inches)

Custom Soil Resource Report

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 6c
Hydrologic Soil Group: C
Ecological site: Loamy (R036XB006NM)
Hydric soil rating: No

Description of Concho

Setting

Landform: Drainageways, stream terraces on valley floors
Landform position (three-dimensional): Tread, dip
Down-slope shape: Linear, concave
Across-slope shape: Convex, linear
Parent material: Fan alluvium over stream alluvium derived from sandstone and shale

Typical profile

Ap1 - 0 to 1 inches: clay loam
Ap2 - 1 to 5 inches: clay
Btss - 5 to 32 inches: clay
Btkss - 32 to 51 inches: clay
Btkz - 51 to 65 inches: clay

Properties and qualities

Slope: 0 to 3 percent
Depth to restrictive feature: More than 80 inches
Natural drainage class: Well drained
Runoff class: High
Capacity of the most limiting layer to transmit water (Ksat): Moderately low to moderately high (0.06 to 0.20 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: Rare
Frequency of ponding: None
Calcium carbonate, maximum in profile: 5 percent
Salinity, maximum in profile: Very slightly saline to slightly saline (2.0 to 4.0 mmhos/cm)
Sodium adsorption ratio, maximum in profile: 2.0
Available water storage in profile: High (about 9.0 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 6c
Hydrologic Soil Group: C
Ecological site: Clayey (R036XB002NM)
Hydric soil rating: No

Minor Components

Fraguni

Percent of map unit: 5 percent
Ecological site: Sandy (R035XA113NM)
Other vegetative classification: Sandy (null_29)
Hydric soil rating: No

Parkelei

Percent of map unit: 5 percent

Custom Soil Resource Report

Ecological site: Loamy (R035XA112NM)
Other vegetative classification: Loamy (null_13)
Hydric soil rating: No

Silcat

Percent of map unit: 5 percent
Ecological site: Clayey (R035XA128NM)
Other vegetative classification: Clayey (null_7)
Hydric soil rating: No

365—Vessilla-Rock outcrop complex, 2 to 15 percent slopes

Map Unit Setting

National map unit symbol: 1xld
Elevation: 6,500 to 8,100 feet
Mean annual precipitation: 13 to 14 inches
Mean annual air temperature: 46 to 49 degrees F
Frost-free period: 100 to 135 days
Farmland classification: Not prime farmland

Map Unit Composition

Vessilla and similar soils: 55 percent
Rock outcrop: 35 percent
Minor components: 10 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Vessilla

Setting

Landform: Mesas, dip slopes on cuestas
Landform position (three-dimensional): Side slope, talf
Down-slope shape: Convex
Across-slope shape: Convex, linear, concave
Parent material: Eolian deposits derived from sandstone

Typical profile

A - 0 to 2 inches: fine sandy loam
Ck1 - 2 to 6 inches: fine sandy loam
Ck2 - 6 to 15 inches: fine sandy loam
R - 15 to 20 inches: bedrock

Properties and qualities

Slope: 2 to 15 percent
Depth to restrictive feature: 5 to 20 inches to lithic bedrock
Natural drainage class: Somewhat excessively drained
Runoff class: Medium
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.20 to 2.00 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None

Custom Soil Resource Report

Frequency of ponding: None

Calcium carbonate, maximum in profile: 15 percent

Salinity, maximum in profile: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)

Available water storage in profile: Very low (about 2.1 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 7s

Hydrologic Soil Group: D

Ecological site: Sandy Upland 13-17" p.z. Moderately Deep (R035XF618AZ)

Other vegetative classification: pinyon-juniper forest (null_3)

Hydric soil rating: No

Description of Rock Outcrop

Typical profile

R - 0 to 60 inches: unweathered bedrock

Properties and qualities

Depth to restrictive feature: 0 inches to lithic bedrock

Capacity of the most limiting layer to transmit water (Ksat): Very low to moderately high (0.00 to 0.20 in/hr)

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 8s

Hydric soil rating: No

Minor Components

Arabrab

Percent of map unit: 5 percent

Ecological site: south of Gallup 13-16 (F036XA001NM)

Other vegetative classification: Pinyon-Juniper Forest (null_21)

Hydric soil rating: No

Evpark

Percent of map unit: 3 percent

Ecological site: Loamy (R035XA112NM)

Other vegetative classification: Pinyon-Juniper Fcrest (null_21)

Hydric soil rating: No

Parkelei

Percent of map unit: 2 percent

Ecological site: Gravelly - Woodland (F035XG134NM)

Other vegetative classification: Pinyon-Juniper Forest (null_21)

Hydric soil rating: No

375—Todest-Shadilto complex, 2 to 8 percent slopes

Map Unit Setting

National map unit symbol: 1x1h
Elevation: 7,000 to 7,700 feet
Mean annual precipitation: 13 to 16 inches
Mean annual air temperature: 49 to 53 degrees F
Frost-free period: 115 to 135 days
Farmland classification: Not prime farmland

Map Unit Composition

Todest and similar soils: 60 percent
Shadilto and similar soils: 25 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Todest

Setting

Landform: Dip slopes on cuestas
Landform position (three-dimensional): Side slope
Down-slope shape: Convex
Across-slope shape: Concave, convex
Parent material: Eolian deposits derived from sandstone over slope alluvium derived from limestone

Typical profile

A - 0 to 1 inches: fine sandy loam
BAt - 1 to 3 inches: fine sandy loam
Btk1 - 3 to 10 inches: sandy clay loam
Btk2 - 10 to 18 inches: sandy clay loam
Bk - 18 to 25 inches: loam
2R - 25 to 40 inches: bedrock

Properties and qualities

Slope: 2 to 8 percent
Depth to restrictive feature: 20 to 40 inches to lithic bedrock
Natural drainage class: Well drained
Runoff class: Medium
Capacity of the most limiting layer to transmit water (Ksat): Very low to moderately high (0.00 to 0.60 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum in profile: 80 percent
Available water storage in profile: Low (about 3.8 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Custom Soil Resource Report

Land capability classification (nonirrigated): 6e

Hydrologic Soil Group: C

Ecological site: Savanna (R035XG127NM)

Hydric soil rating: No

Description of Shadilto

Setting

Landform: Dip slopes on cuestas

Landform position (three-dimensional): Side slope

Down-slope shape: Convex

Across-slope shape: Convex, concave

Parent material: Eolian deposits derived from sandstone over residuum weathered from limestone

Typical profile

A - 0 to 1 inches: very gravelly sandy loam

Bk1 - 1 to 9 inches: sandy loam

Bk2 - 9 to 13 inches: sandy loam

Bk3 - 13 to 15 inches: sandy loam

R - 15 to 20 inches: bedrock

Properties and qualities

Slope: 2 to 8 percent

Depth to restrictive feature: 5 to 20 inches to lithic bedrock

Natural drainage class: Somewhat excessively drained

Runoff class: High

Capacity of the most limiting layer to transmit water (Ksat): Very low to moderately high (0.00 to 0.60 in/hr)

Depth to water table: More than 80 inches

Frequency of flooding: None

Frequency of ponding: None

Calcium carbonate, maximum in profile: 80 percent

Salinity, maximum in profile: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)

Available water storage in profile: Very low (about 1.6 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 7e

Hydrologic Soil Group: D

Ecological site: Shallow (R035XG116NM)

Hydric soil rating: No

Minor Components

Flugle

Percent of map unit: 5 percent

Ecological site: Loamy (R035XA112NM)

Other vegetative classification: Loamy (null_13)

Hydric soil rating: No

Evpark

Percent of map unit: 5 percent

Ecological site: Loamy (R035XA112NM)

Other vegetative classification: Loamy (null_13)

Hydric soil rating: No

Custom Soil Resource Report

Arabrab

Percent of map unit: 5 percent

Ecological site: south of Gallup 13-16 (F036XA001NM)

Other vegetative classification: Shallow Sandstone (null_37)

Hydric soil rating: No

380—Berryhill-Casamero clays, 2 to 10 percent slopes

Map Unit Setting

National map unit symbol: 1x1k

Elevation: 7,000 to 7,800 feet

Mean annual precipitation: 10 to 13 inches

Mean annual air temperature: 49 to 53 degrees F

Frost-free period: 120 to 140 days

Farmland classification: Not prime farmland

Map Unit Composition

Berryhill and similar soils: 50 percent

Casamero and similar soils: 45 percent

Minor components: 5 percent

Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Berryhill

Setting

Landform: Valley sides, hills, depressions on valley floors

Landform position (two-dimensional): Backslope, footslope, shoulder, toeslope

Landform position (three-dimensional): Side slope, crest, nose slope, head slope, tread, dip

Down-slope shape: Concave, convex

Across-slope shape: Concave, convex, linear

Parent material: Slope alluvium derived from shale

Typical profile

A - 0 to 2 inches: clay

Bw - 2 to 12 inches: clay

Bssyz1 - 12 to 26 inches: clay

Bssyz2 - 26 to 39 inches: clay

Bssyz3 - 39 to 70 inches: clay

Properties and qualities

Slope: 2 to 8 percent

Depth to restrictive feature: More than 80 inches

Natural drainage class: Well drained

Runoff class: Very high

Capacity of the most limiting layer to transmit water (Ksat): Low to moderately low
(0.01 to 0.06 in/hr)

Depth to water table: More than 80 inches

Frequency of flooding: None

Custom Soil Resource Report

Frequency of ponding: None

Calcium carbonate, maximum in profile: 10 percent

Gypsum, maximum in profile: 35 percent

Salinity, maximum in profile: Very slightly saline to moderately saline (2.0 to 8.0 mmhos/cm)

Sodium adsorption ratio, maximum in profile: 8.0

Available water storage in profile: Moderate (about 8.4 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 6c

Hydrologic Soil Group: D

Ecological site: Clayey (R035XA128NM)

Hydric soil rating: No

Description of Casamero

Setting

Landform: Valley sides, hills

Landform position (two-dimensional): Backslope, footslope, shoulder, toeslope

Landform position (three-dimensional): Side slope, crest, nose slope, head slope

Down-slope shape: Concave, convex

Across-slope shape: Concave, convex

Parent material: Slope alluvium over residuum weathered from shale

Typical profile

A - 0 to 3 inches: clay

Bss - 3 to 11 inches: clay

Bssyz - 11 to 18 inches: clay

Cr - 18 to 20 inches: bedrock

Properties and qualities

Slope: 2 to 10 percent

Depth to restrictive feature: 10 to 20 inches to paralithic bedrock

Natural drainage class: Well drained

Runoff class: Very high

Capacity of the most limiting layer to transmit water (Ksat): Very low to moderately low (0.00 to 0.06 in/hr)

Depth to water table: More than 80 inches

Frequency of flooding: None

Frequency of ponding: None

Calcium carbonate, maximum in profile: 10 percent

Gypsum, maximum in profile: 5 percent

Salinity, maximum in profile: Very slightly saline to moderately saline (2.0 to 8.0 mmhos/cm)

Sodium adsorption ratio, maximum in profile: 5.0

Available water storage in profile: Very low (about 2.5 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 7s

Hydrologic Soil Group: D

Ecological site: Clayey (R035XA128NM)

Hydric soil rating: Unranked

Custom Soil Resource Report

Minor Components

Marianolake

Percent of map unit: 3 percent

Ecological site: Loamy (R035XA112NM)

Other vegetative classification: Loamy (null_13)

Hydric soil rating: No

Rock outcrop

Percent of map unit: 2 percent

Hydric soil rating: No

404—Rock outcrop-Techado-Stozuni complex, 5 to 60 percent slopes

Map Unit Setting

National map unit symbol: 1xls

Elevation: 6,600 to 8,000 feet

Mean annual precipitation: 16 to 20 inches

Mean annual air temperature: 40 to 45 degrees F

Frost-free period: 90 to 110 days

Farmland classification: Not prime farmland

Map Unit Composition

Rock outcrop: 35 percent

Techado and similar soils: 35 percent

Stozuni and similar soils: 25 percent

Minor components: 5 percent

Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Rock Outcrop

Typical profile

R - 0 to 60 inches: bedrock

Properties and qualities

Depth to restrictive feature: 0 inches to lithic bedrock

Capacity of the most limiting layer to transmit water (Ksat): Very low to moderately high (0.00 to 0.20 in/hr)

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 8s

Hydric soil rating: No

Description of Techado

Setting

Landform: Ridges, hills, escarpments on cuestas, escarpments on mesas

Landform position (two-dimensional): Backslope, footslope, shoulder, toeslope

Custom Soil Resource Report

Landform position (three-dimensional): Side slope, crest, nose slope, head slope, talf

Down-slope shape: Convex

Across-slope shape: Convex, linear

Parent material: Slope alluvium and colluvium over residuum weathered from shale

Typical profile

A - 0 to 5 inches: channery clay loam

C1 - 5 to 8 inches: clay

C2 - 8 to 17 inches: clay

2R - 17 to 20 inches: bedrock

Properties and qualities

Slope: 5 to 60 percent

Depth to restrictive feature: 10 to 20 inches to paralithic bedrock

Natural drainage class: Well drained

Runoff class: Very high

Capacity of the most limiting layer to transmit water (Ksat): Very low to moderately low (0.00 to 0.06 in/hr)

Depth to water table: More than 80 inches

Frequency of flooding: None

Frequency of ponding: None

Salinity, maximum in profile: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)

Sodium adsorption ratio, maximum in profile: 1.0

Available water storage in profile: Very low (about 2.6 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 8

Hydrologic Soil Group: D

Other vegetative classification: Ponderosa Pine Forest (null_5)

Hydric soil rating: No

Description of Stozuni

Setting

Landform: Ridges, hills, escarpments on cuestas, escarpments on mesas

Landform position (two-dimensional): Backslope, footslope, shoulder, toeslope

Landform position (three-dimensional): Side slope, crest, nose slope, head slope, talf

Down-slope shape: Convex

Across-slope shape: Convex, linear

Parent material: Eolian deposits over slope alluvium derived from sandstone

Typical profile

A - 0 to 1 inches: gravelly sandy loam

C - 1 to 7 inches: gravelly sandy loam

R - 7 to 20 inches: bedrock

Properties and qualities

Slope: 5 to 15 percent

Depth to restrictive feature: 5 to 20 inches to lithic bedrock

Natural drainage class: Somewhat excessively drained

Runoff class: Medium

Custom Soil Resource Report

Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.20 to 2.00 in/hr)

Depth to water table: More than 80 inches

Frequency of flooding: None

Frequency of ponding: None

Calcium carbonate, maximum in profile: 1 percent

Available water storage in profile: Very low (about 0.7 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 7s

Hydrologic Soil Group: D

Other vegetative classification: Ponderosa Pine Forest (null_5)

Hydric soil rating: No

Minor Components

Valnor

Percent of map unit: 3 percent

Ecological site: Montane slopes 12-18" (F039XA007NM)

Other vegetative classification: Ponderosa Pine Forest (null_24)

Hydric soil rating: No

Asaayi

Percent of map unit: 2 percent

Other vegetative classification: Ponderosa Pine Forest (null_24)

Hydric soil rating: No

555—Parkelei-Evpark fine sandy loams, 2 to 8 percent slopes

Map Unit Setting

National map unit symbol: 1xmt

Elevation: 6,800 to 8,000 feet

Mean annual precipitation: 13 to 16 inches

Mean annual air temperature: 46 to 49 degrees F

Frost-free period: 100 to 135 days

Farmland classification: Not prime farmland

Map Unit Composition

Parkelei and similar soils: 45 percent

Evpark and similar soils: 35 percent

Minor components: 20 percent

Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Parkelei

Setting

Landform: Mesas, ridges, dip slopes on cuestas

Custom Soil Resource Report

Landform position (three-dimensional): Side slope, talf

Down-slope shape: Convex

Across-slope shape: Linear, convex, concave

Parent material: Eolian deposits over slope alluvium derived from sandstone and shale

Typical profile

A - 0 to 3 inches: fine sandy loam

Bt1 - 3 to 12 inches: clay loam

Bt2 - 12 to 21 inches: sandy clay loam

Bk - 21 to 65 inches: sandy loam

Properties and qualities

Slope: 2 to 8 percent

Depth to restrictive feature: More than 80 inches

Natural drainage class: Well drained

Runoff class: High

Capacity of the most limiting layer to transmit water (Ksat): Moderately high (0.20 to 0.57 in/hr)

Depth to water table: More than 80 inches

Frequency of flooding: None

Frequency of ponding: None

Calcium carbonate, maximum in profile: 5 percent

Salinity, maximum in profile: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)

Sodium adsorption ratio, maximum in profile: 1.0

Available water storage in profile: Moderate (about 8.2 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 6c

Hydrologic Soil Group: C

Ecological site: Gravelly - Woodland (F035XG134NM)

Other vegetative classification: pinyon-juniper forest (null_3)

Hydric soil rating: No

Description of Evpark

Setting

Landform: Dip slopes on cuestas, mesas, ridges

Landform position (three-dimensional): Side slope, talf

Down-slope shape: Convex

Across-slope shape: Concave, convex, linear

Parent material: Eolian deposits over slope alluvium derived from sandstone and shale

Typical profile

A - 0 to 3 inches: fine sandy loam

Bt1 - 3 to 16 inches: clay loam

Bt2 - 16 to 20 inches: clay loam

Bt3 - 20 to 29 inches: sandy clay loam

Btk - 29 to 35 inches: sandy clay loam

2R - 35 to 40 inches: bedrock

Properties and qualities

Slope: 2 to 8 percent

Depth to restrictive feature: 20 to 40 inches to lithic bedrock

Custom Soil Resource Report

Natural drainage class: Well drained
Runoff class: High
Capacity of the most limiting layer to transmit water (Ksat): Moderately high (0.20 to 0.57 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum in profile: 10 percent
Salinity, maximum in profile: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Sodium adsorption ratio, maximum in profile: 1.0
Available water storage in profile: Moderate (about 6.1 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 6c
Hydrologic Soil Group: C
Ecological site: Loamy (R035XA112NM)
Other vegetative classification: pinyon-juniper forest (null_3)
Hydric soil rating: No

Minor Components

Arabrab

Percent of map unit: 10 percent
Ecological site: south of Gallup 13-16 (F036XA001NM)
Other vegetative classification: Pinyon-Juniper Forest (null_21)
Hydric soil rating: No

Highdye

Percent of map unit: 5 percent
Ecological site: Gravelly - Woodland (F035XG134NM)
Other vegetative classification: Pinyon-Juniper Forest (null_21)
Hydric soil rating: No

Bryway

Percent of map unit: 5 percent
Ecological site: Loamy (R035XA112NM)
Other vegetative classification: Pinyon-Juniper Forest (null_21)
Hydric soil rating: No

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RESOLUTION OF THE CHAPTER
Resolution No. PDC-09-18-203

APPROVING THE PINEDALE CHAPTER COMPREHENSIVE COMMUNITY-BASED
LAND USE PLAN MANUAL

WHEREAS:

1. The Pinedale Chapter is a certified chapter of the Navajo Nation government pursuant to 26 N.N.C. §3.
2. Pursuant to Resolution No. CAP-34-98, the Navajo Nation Council adopted the Navajo Nation Local Governance Act (LGA); and
3. Pursuant to the LGA, all chapters shall develop and implement a comprehensive community-based land use plan pursuant to 26 N.N.C. § 2004; and
4. The Pinedale Chapter completed the development of the comprehensive community-based land use plan in accordance with 26 N.N.C. § 2004; and
5. In the best interest of the community, the Pinedale Chapter hereby approves the comprehensive community-based land use plan, attached hereto as Exhibit "A".

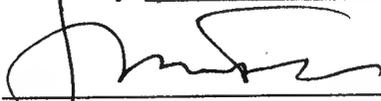
NOW THEREFORE BE IT RESOLVED THAT:

1. The Pinedale Chapter hereby approves the Comprehensive Community-Based Land Use Plan in accordance with the requirements of the Local Governance Act, attached hereto as Exhibit "A".
2. The Pinedale Chapter further hereby requests the Resource and Development Committee of the Navajo Nation Council to grant certification of their Comprehensive Community-Based Land Use Plan.

CERTIFICATION

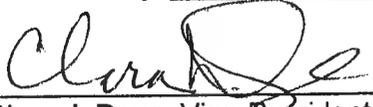
We, hereby, certify that the foregoing resolution was duly considered by the Pinedale Chapter at a duly called meeting in Pinedale, Navajo Nation, New Mexico at which a quorum of Chapter members was present and that the same was passed by a vote of 23 in favor, 0 opposed and 5 abstained this 17th day of September, 2018.

Motion by: Francis Price

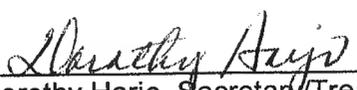


Raphael Martin, President

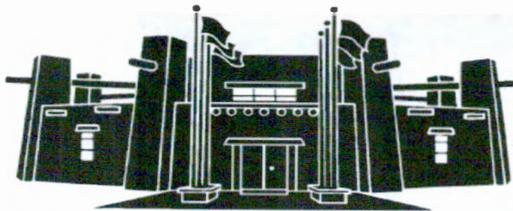
Seconded by: Janice Bennett



Clara J. Daye, Vice-President



Dorothy Harjo, Secretary/Treasurer



MEMORANDUM

TO: Honorable Edmund Yazzie
Churchrock, Iyanbito, Mariano Lake, Pinedale, Smith Lake and Thoreau Chapters

FROM: Mariana Kahn
Mariana Kahn, Attorney
Office of Legislative Counsel

DATE: September 27, 2018

SUBJECT: PROPOSED STANDING COMMITTEE RESOLUTION; AN ACTION RELATING TO RESOURCES AND DEVELOPMENT COMMITTEE, CERTIFYING PINEDALE CHAPTER'S COMMUNITY-BASED LAND USE PLAN WHICH HAS REEVALUATED AND READJUSTED PINEDALE CHAPTER'S FIRST COMMUNITY-BASED LAND USE PLAN

As requested, I have prepared the above-referenced proposed resolution and associated legislative summary sheet pursuant to your request for legislative drafting.

Based on existing law and review of documents submitted, the resolution as drafted is legally sufficient. As with any action of government however, it can be subject to review by the courts in the event of proper challenge.

The Office of Legislative Counsel confirms the appropriate standing committee(s) based on the standing committees powers outlined in 2 N.N.C. §§301, 401, 501, 601 and 701. Nevertheless, "the Speaker of the Navajo Nation Council shall introduce [the proposed resolution] into the legislative process by assigning it to the respective oversight committee(s) of the Navajo Nation Council having authority over the matters for proper consideration." 2 N.N.C. §164(A)(5).

Please ensure that his particular resolution request is precisely what you want. You are encouraged to review the proposed resolution to ensure that it is drafted to your satisfaction.

THE NAVAJO NATION
LEGISLATIVE BRANCH
INTERNET PUBLIC REVIEW PUBLICATION



LEGISLATION NO: _0314-18_

SPONSOR: Edmund Yazzie

TITLE: An Action Relating To Resources And Development Committee, Certifying Pinedale Chapter's Community-Based Land Use Plan Which Has Reevaluated And Readjusted Pinedale Chapter's First Community-Based Land Use Plan

Date posted: September 27, 2018 at 5:12 PM

Digital comments may be e-mailed to comments@navajo-nsn.gov

Written comments may be mailed to:

**Executive Director
Office of Legislative Services
P.O. Box 3390
Window Rock, AZ 86515
(928) 871-7586**

Comments may be made in the form of chapter resolutions, letters, position papers, etc. Please include your name, position title, address for written comments; a valid e-mail address is required. Anonymous comments will not be included in the Legislation packet.

Please note: This digital copy is being provided for the benefit of the Navajo Nation chapters and public use. Any political use is prohibited. All written comments received become the property of the Navajo Nation and will be forwarded to the assigned Navajo Nation Council standing committee(s) and/or the Navajo Nation Council for review. Any tampering with public records are punishable by Navajo Nation law pursuant to 17 N.N.C. §374 *et. seq.*

**THE NAVAJO NATION
LEGISLATIVE BRANCH
INTERNET PUBLIC REVIEW SUMMARY**

LEGISLATION NO.: 0314-18

SPONSOR: Honorable Edmund Yazzie

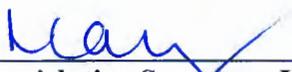
TITLE: An Action Relating To Resources And Development Committee, Certifying Pinedale Chapter's Community-Based Land Use Plan Which Has Reevaluated And Readjusted Pinedale Chapter's First Community-Based Land Use Plan

Posted: September 27, 2018 at 5:12 PM

5 DAY Comment Period Ended: October 2, 2018

Digital Comments received:

Comments Supporting	<i>None</i>
Comments Opposing	<i>None</i>
Inconclusive Comments	<i>None</i>



Legislative Secretary II
Office of Legislative Services

10/3/2018 8:15am

Date/Time

RESOLUTION OF THE
RESOURCES AND DEVELOPMENT COMMITTEE
23rd Navajo Nation Council --- Fourth Year, 2018

AN ACTION

RELATING TO RESOURCES AND DEVELOPMENT COMMITTEE; CERTIFYING
PINEDALE CHAPTER'S COMMUNITY-BASED LAND USE PLAN WHICH HAS
REEVALUATED AND READJUSTED PINEDALE CHAPTER'S FIRST COMMUNITY-
BASED LAND USE PLAN

BE IT ENACTED:

SECTION ONE. AUTHORITY

- A. The Resources and Development Committee, pursuant to 26 N.N.C. § 2004(D)(2) shall certify community-based land use plans.
- B. Pursuant to 26 N.N.C. § 2004(D)(2), "Every five years the plan shall be reevaluated and readjusted to meet the needs of the changing community" and such readjustment is subject to the certification of the Resources and Development Committee of the Navajo Nation Council.
- C. Pursuant to 26 N.N.C. § 2004 (B), "Community-Based Land Use Plan. The chapter, at a duly-called chapter meeting shall by resolution, vote to implement a community-based land use plan, after the CLUPC has educated the community on the concepts, needs, and process for planning and implementing a community-based land use plan. The community-based land use plan shall project future community land needs, shown by location and extent, of areas identified for residential, commercial, industrial, and public purposes. The land use plan shall be based upon the guiding principles and vision as articulated by the community; along with information revealed in inventories and assessments of the natural, cultural, human resources, and community infrastructure; and, finally with consideration for the land-carrying capacity. Such a plan may also include the following: 1. An open space plan, which preserves for the people certain areas to be retained in their natural state or developed for recreational purposes. 2. A thoroughfare plan which provides information about the existing and proposed road network in relation to

the land use of the surrounding area. 3. A community facilities plan, which shows the location, type, capacity, and area served, of present and projected or required community facilities including, but not limited to, recreation areas, schools, libraries, and other public buildings. It will also show related public utilities and services and indicate how these services are associated with future land use."

SECTION TWO. FINDINGS

- A. Pursuant to Committee Resolution TCDCJY-22-05, the Transportation and Community Development Committee (predecessor to the Resources and Development Committee; CO-45-12) approved the Pinedale Chapter's Community-Based Land Use Plan in 2005.
- B. Pursuant to Pinedale Chapter Resolution PDC-09-18-203, attached as **Exhibit B**, the Pinedale Chapter approved the Community-Based Land Use Plan, which is attached as **Exhibit A**.
- C. The Resources and Development Committee of the Navajo Nation Council finds it in the best interest of the Navajo Nation to certify the Pinedale Chapter's Community-Based Land Use Plan, which has been reevaluated and readjusted to meet the needs of the changing community.

SECTION THREE. CERTIFICATION OF PINEDALE CHAPTER'S REEVALUATED AND READJUSTED COMMUNITY-BASED LAND USE PLAN

- A. The Resources and Development Committee of the Navajo Nation Council hereby certifies the reevaluated and readjusted Pinedale Chapter's Community-Based Land Use Plan, attached hereto as **Exhibit A**.
- B. Certification of this Community-Based Land Use Plan shall not delineate adjacent chapter boundaries. Any chapter disputes rest solely with the Courts of the Navajo Nation.

CERTIFICATION

I, hereby, certify that the following resolution was duly considered by the Resources and Development Committee of the 23rd Navajo Nation Council at a duly called meeting at the Navajo Nation Council Chambers, Window Rock, Navajo Nation (Arizona), at which a quorum was present and that same was passed by a vote of 3 in favor, and 0 opposed, on this 31st day of October 2018.



Alton Joe Shepherd, Chairperson
Resources and Development Committee
of the 23rd Navajo Nation Council

Motion: Honorable Davis Filfred

Second: Honorable Walter Phelps

Chairperson Alton Joe Shepherd not voting.

**RESOURCES AND DEVELOPMENT COMMITTEE
23rd NAVAJO NATION COUNCIL**

FOURTH YEAR 2018

COMMITTEE REPORT

Mr. Speaker,

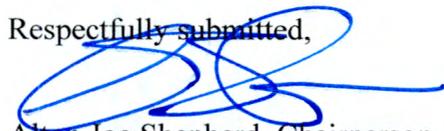
The **RESOURCES AND DEVELOPMENT COMMITTEE** to whom has been assigned:

LEGISLATION #0314-18: AN ACTION RELATING TO RESOURCES AND DEVELOPMENT, CERTIFYING PINEDALE CHAPTER'S COMMUNITY-BASED LAND USE PLAN WHICH HAS REEVALUATED AND READJUSTED PINEDALE CHAPTER'S FIRST COMMUNITY-BASED LAND USE PLAN. Sponsor: Honorable Edmund Yazzie; Co-Sponsor: Jonathan L. Hale

Has had it under consideration and reports a **DO PASS** with the following amendment;

Extract Exhibit A, Pinedale Chapter's CLUPC Manuel because Tab 11 was amended and corrected. Attached is the corrected manual and be marked as the new Exhibit "A". And thereafter the matter was approved.

Respectfully submitted,



Alton Joe Shepherd, Chairperson
Resource and Development Committee of
the 23rd Navajo Nation Council

Date: October 31, 2018 - Regular Meeting

Meeting Location: Navajo Nation Council Chambers, Window Rock, Arizona

MAIN MOTION: Davis Filfred S: Walter Phelps V: 3-0-1 (CNV)

YEAS: Davis Filfred, Walter Phelps and Leonard Pete

NAYS:

EXCUSED: Benjamin Bennett and Jonathan Perry

AMENDMENT # 1: Extract Exhibit "A" and replace with new Exhibit "A" which is attached.

MOTION: Walter Phelps S: Leonard Pete V: 3-0-1 (CNV)

YEAS: Davis Filfred, Walter Phelps and Leonard Pete

NAYS:

EXCUSED: Benjamin Bennett and Jonathan Perry

RESOURCES AND DEVELOPMENT COMMITTEE
Regular Meeting
October 31, 2018

ROLL CALL
VOTE TALLY SHEET:

LEGISLATION # 0314-18: AN ACTION RELATING TO RESOURCES AND DEVELOPMENT, CERTIFYING PINEDALE CHAPTER'S COMMUNITY-BASED LAND USE PLAN WHICH HAS REEVALUATED AND READJUSTED PINEDALE CHAPTER'S FIRST COMMUNITY-BASED LAND USE PLAN. *Sponsor: Honorable Edmund Yazzie; Co-Sponsor: Jonathan L. Hale*

Main Motion: Davis Filfred Second: Walter Phelps Vote: 3-0-1 (CNV)
YEAS: Davis Filfred, Walter Phelps, and Leonard Pete
NAYS:
EXCUSED: Benjamin Bennett and Jonathan Perry

AMENDMENT # 1: Extract Exhibit "A" and replace with new Exhibit "A" which is attached.

MOTION: Walter Phelps S: Leonard Pete V: 3-0-1 (CNV)
YEAS: Davis Filfred, Walter Phelps and Leonard Pete
NAYS:
EXCUSED: Benjamin Bennett and Jonathan Perry



Alton Joe Shepherd, Chairperson
Resources and Development Committee



Shammie Begay, Legislative Advisor
Resources and Development Committee