

**RESOLUTION OF THE
RESOURCES AND DEVELOPMENT COMMITTEE
23rd Navajo Nation Council --- Third Year, 2017**

AN ACTION

**RELATING TO RESOURCES AND DEVELOPMENT COMMITTEE:
RECERTIFYING PIÑON CHAPTER'S COMMUNITY-BASED LAND USE PLAN
WHICH REEVALUATED AND READJUSTED PIÑON 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.

SECTION TWO. FINDINGS

- A. Pursuant to 26 N.N.C. §2004(D)(2), the Chapter shall amend the Community-Based Land Use Plan every five years, and such amendment is subject to the certification of the Resources and Development Committee of the Navajo Nation Council.
- B. The Piñon Chapter passed a resolution titled, "*Resolution Adopting and Approving the Updated Pinon Chapter Community Land Use Plan and Requesting the Resource and Development Committee of the Navajo Nation Council to certify this updated plan, in accordance with the 5-year recommended review cited in the Navajo Nation Code Title 26 Section 103 (E)(1[]).*" Resolution No. PIN-17-67.
- C. The Resources and Development Committee of the Navajo Nation Council finds it in the best interest of the Navajo Nation to recertify the Piñon 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 PIÑON 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 Piñon 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 Pinon Unified School District, Pinon, Navajo Nation (Arizona), at which a quorum was present and that same was passed by a vote of 3 in favor, 0 opposed, 1 abstained on this 8th day of November, 2017.



Walter Phelps, Pro Tempore Chairperson
Resources and Development Committee
of the 23rd Navajo Nation Council

Motion: Honorable Walter Phelps
Second: Honorable Leonard Pete



PINON CHAPTER

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PIN-17- 67

RESOLUTION OF THE PINON CHAPTER

Resolution Adopting and Approving the Updated Pinon Chapter Community Land Use Plan and Requesting the Resource and Development Committee of the Navajo Nation Council to certify this updated plan, in accordance with the 5-year recommended review cited in the Navajo Nation Code Title 26 Section 103 (E) (1

WHEREAS:

1. The Pinon Chapter is a certified chapter of the Navajo Nation vested with authority and responsibilities to provide and enact on all matters affecting the community; AND
2. Pursuant to 26 N.N.C. Section 1 (8), Low Mountain Chapter is vested with the authority to review all matters affecting the community to make appropriate revisions when necessary and make recommendations to the Navajo Nation Government and other local agencies for appropriate actions; AND
3. Pursuant to CAP-34-98, the Navajo Nation Council approved the Navajo Nation Local Governance Act that allows Pinon Chapter to make decisions over local matters; AND
4. Pursuant to Local Governance Act, all chapters will adopt and update Comprehensive Community Land Use plans for local users and to recommend to the Navajo Nation Resources and Development Committee for approval; AND
5. Pursuant to the LGA, the Pinon Chapter established a Community Land Use Planning Committee(CLUPC) to approve the processes for planning and oversee planning activities; AND
6. The Pinon Chapter has completed its comprehensive community-based land use plan that emphasizes scattered housing development and has a thoroughfare plan, open space plan, community facilities plan and infrastructure plan.
7. Pinon Chapter and its C.L.U.P.C. have done all preliminary activities; eg. Two Public Hearings and several work studies for community members.

NOW, THEREFORE, BE IT RESOLVED THAT:

Pinon Chapter hereby Adopts and Approves the Updated Pinon Chapter Community Land Use Plan and Requesting the Resource and Development Committee of the Navajo Nation Council to certify this updated plan, in accordance with the 5-year recommended review cited in the Navajo Nation Code Title 26 Section 103 (E) (1)

CERTIFICATION

We, hereby, certify that the foregoing resolution was duly considered by the Pinon Chapter at a duly called meeting at Pinon, Navajo Nation (Arizona) at which a quorum was present and that the same was passed by a vote of 25 in Favor, 00 Opposed and 00 Abstained on this 17th day of July 2017.

Bessie S. Allen
Bessie S. Allen
PRESIDENT

Ramona Nalwood
Ramona Nalwood
SECRETARY/TREASURER

Bill Yazzie
Bill Yazzie
VICE-PRESIDENT

Dwight Witherspoon
Dwight Witherspoon
COUNCIL DELEGATE

COMMUNITY BASED COMPREHENSIVE LAND USE & LAND MANAGEMENT PLAN

BE'AK'ID BAA' AHOOD ZÁNÍ CHAPTER *Piñon*

2017 Update created by the Piñon Community Land Use Planning Committee
*Date adopted: **July 10, 2017***

Original Plan Prepared for: Piñon Chapter

TAKAHASHI  ASSOCIATES

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REPORT WAS PREPARED FOR:

- Piñon Chapter

REPORT PREPARED BY:

- Takahashi Associates
- Updated by Pinon Chapter officials, Administration, and CLUPC

PIÑON CHAPTER OFFICIALS:

- Dwight Witherspoon, Council Delegate
- Juan T. Begay Jr., Grazing Official
- Bessie S. Allen, Chapter President
- Bill Yazzie, Chapter Vice-president
- Evelyn M. Meadows, Chapter Vice-president (former)
- Ramona Nalwood, Chapter Secretary
- Sharon A. Begay, Chapter Manager
- Mary Ann Tsosie, Administrative Assistant

PIÑON COMMUNITY LAND USE PLANNING COMMITTEE:

- Juan T. Begay, Chairperson and Grazing Official
- Stella Bizahaloni, Secretary
- Laverne Gorney
- Lita Bizahaloni
- Nelson K. Begay

PAST PIÑON COMMUNITY LAND USE PLANNING COMMITTEE:

- Elton James Begay
- Glenna Manymules Bitsoi
- Leonard Elthie
- Kee Gonnie
- Mary K. James
- Elvis Jodie
- Raynard Kieyoani
- Evelyn M. Meadows
- Susan Nez
- Roberto Nutlouis
- Phyllis Tachine
- Charles Sam Tsosie
- Sandra Yazzie
- Nancy Todechine
- Richard Lee

MEMBERS OF THE CONSULTANT TEAM:

- Julia Takahashi, Takahashi Associates
- Lucy Kuhns, Kuhns Engineering

INTRODUCTION

Navajos...say, "The whole land is sacred." This statement evokes how soil, moisture, air, and light in human hands become food that in turn becomes the people's flesh and blood. It also evokes the social relations between mortals and the immortal "Holy People" whose outer forms are landscape features, animals, plants, the atmosphere, and celestial bodies. The statement is so succinct that many miss its powerful meaning. On this land are certain places of special power, where special processes and events – echoes, a miraculous escape from enemies – make the immortal people most evident or accessible to mortals, and the mortals who live on the land have a political right to use these places for communicating with the immortals in ways that sustain both.¹



Rock formation in White Valley

¹ *Navajo Sacred Places*, Klara Bonsack Kelley and Harris Francis, Indiana University Press, Bloomington; 1994. Pp 1.

*T'áá Dinéji: The plan
must respect the Navajo
Way.*

*As time passes the plan
will change*

In taking on the challenge of creating a comprehensive approach to a land use plan for the Piñon Chapter, the planners also committed to a result which is responsive to the Diné approach and way of life. The planners here consist of the members of the Community Land Use Planning Committee, the Chapter Officials and staff members, and the Planning Assistant.

Collectively, the planners have spent many hours talking with Chapter residents, touring the land, researching data and considering the consequences of their decisions. It is their hope that this plan will be seen as a living document that reflects the unique qualities of Piñon and that it will continue to change over time as the community grows and changes.

A note on the text: The text contains Navajo language terms and translations with the intention of making the document more accessible to Chapter members. Where needed, terms are defined in the footnote. The words Navajo and Diné are used somewhat interchangeably. Diné is used more when the point of view represents the Diné; and Navajo is used when the point of view is from Anglos or is part of a quotation.



CLUPC members and Consultant from left clockwise Kee Goanie, Julia Takahashi, Bessie Allen, Mary James and Nancy Todechini.

Fellow Councilmen, we must understand that here we have opportunity for development of our human resources as well as our material resources. We do not do one without the other without going along on both programs. By that I mean that we cannot develop human resources by not approving any of our material resources, our natural resources on the Reservation. If we do this, we are merely providing better income or rather, asking for a better income on the Reservation which means better living conditions for our Navajo people. We may not see full development in our time but, for the future generations, they will be thankful that this group, this council here, has instituted such a plan for their children and their grandchildren....

Time and time again it has been spoken here that people, certain people, have fought for a land. If we fight for a land, why is it not our privilege to improve the land we fought for? That is the way I look at it... What is the land if you do not have anything to say about it? What is it to you? It is not ours if we do not have anything to say about it. If we are given a privilege, it will be ours. They will say it is ours...¹

--Council Delegate Ned Hatathli, October 14, 1955

¹ *For Our Navajo People, Diné Letters, Speeches & Petitions 1900 – 1960*, Peter Iverson ed., University of New Mexico Press, Albuquerque, NM; 2002. Pp. 198 – 199.

COMMUNITY EDUCATION AND PARTICIPATION PLAN

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INTRODUCTION

Community education and participation is a critical part of any land use planning process. The plan presented here outlines the procedures and processes which will be used by the CLUPC and the Chapter to ensure Chapter Member participation in land use decisions.

This will help the community in building agreement for proposed projects and will help make certain that projects and plans are sensitive to cultural considerations, individual needs and the needs of the Chapter. It will also help to encourage discussion and realistic planning.

This plan takes into consideration that the members of the Piñon Community Land Use Committee (CLUPC) serve as volunteers and act as an advisory group to the Chapter Officials and the Chapter Membership.

Residents and Chapter Members need to stay involved in making planning decisions for their community. The Piñon CLUPC has helped to create public participation sections for this plan to encourage broad participation by the public.

The Comprehensive Community Based Land Use Plan and other land use decisions made by the Chapter will be in compliance with:

Navajo Nation Code, Chapter 2: Chapter Government, Subchapter 7: Navajo Nation Chapter Regulations and Procedures, Section 2004.Zoning; Comprehensive Plan.
Federal Grazing Regulations, 25 CFR 161.

The plan has five parts:

1. Piñon Community Participation Goals & Objectives
This is the CLUPC's action plan to encourage and solicit public participation in the planning effort.
2. Public Involvement
 - Public Notices & Advertising
 - Public Hearings & Meetings
3. Community Education
4. Community Land Use Planning Committee (CLUPC) Responsibilities
5. Review and Approval of Planning Policies and Projects

PIÑON COMMUNITY PARTICIPATION GOALS & OBJECTIVES

The following sets of goals and objectives for the public education and participation plan have been adopted. They are presented in chart form with the goal or purpose on the left side and the objective or action on the right side. The goals are prioritized below with #1 – 6 being the highest priorities.

<i>Community Participation Goal/Purpose</i>	<i>Community Participation Objective/Action</i>
1. Help educate the community about the purpose and ideas in the land use plan and related projects.	<ul style="list-style-type: none"> ❖ Provide educational presentations during public hearings as well as make regular presentations at the Chapter Meetings. ❖ CLUPC members will hold special public education sessions for the community when there are important policy decisions or projects which need to be discussed.
2. Involve local government officials including – Chapter Officials, Council Delegate, Local Grazing Official and Chapter Manager in the planning process.	<ul style="list-style-type: none"> ❖ CLUPC member(s) will attend and make presentations at the monthly Chapter planning committee meeting. ❖ Chapter Officials as ex officio members are to attend the CLUPC meetings. ❖ Chapter Officials are invited to attend CLUPC trainings. ❖ The Council Delegates is to attend the CLUPC meetings and trainings. ❖ The Grazing Official is encouraged to attend CLUPC meetings and to stay involved in planning decisions. ❖ The Manager as an ex officio member is to attend the CLUPC meetings. ❖ The Manager is invited to attend CLUPC trainings. ❖ CLUPC members will make 10 minute presentations on the committee's work at some of the Chapter Meetings.
3. Identify Clan roots, traditional, ceremonial and sacred sites and relate them to locations within the Chapter area.	<ul style="list-style-type: none"> ❖ Work with community elders and medicine people to identify sites for protection. ❖ Make certain that cultural sites are not disturbed by proposed new projects and comply with range unit management plans.
4. Educate the CLUPC on its role and help the members develop knowledge and skills in planning.	<ul style="list-style-type: none"> ❖ Provide annual opportunities for CLUPC Members to receive additional training on land use and community planning.
5. Involve community businesses, organizations and churches in the planning process.	<ul style="list-style-type: none"> ❖ Open CLUPC meetings to the public and invite organizations and individuals to meetings where policies will be discussed which may effect them.
6. Involve the schools in the planning process.	<ul style="list-style-type: none"> ❖ The School Superintendent /principals is invited to attend the CLUPC meetings.
7. Conduct at least two public hearings for each policy or project decision.	<ul style="list-style-type: none"> ❖ Public Hearings can be conducted before or during Chapter Meetings or at a separate time. All Public Hearings will have public notices and will be open to public participation.

PUBLIC INVOLVEMENT

The objective of this section of the plan is to inform the members of the Chapter and the general public about land use planning events and activities and to encourage Chapter member involvement in the land use planning decisions. Several strategies are provided to address this objective and are described below.

Public Notices & Advertising

Objective: Increase public awareness of land use planning efforts and events

1. The Chapter Staff and members of the CLUPC will
 - Arrange for public service announcements on local radio shows for the Land Use Planning Committee meetings and the Public Hearings. The meetings and hearings will be listed in the Chapter's Schedule of Meetings and Activities.
 - Create and distribute flyers/posters for the Land Use Planning Public Hearings.
 - Place public service announcements in the *local radio stations* and the *Chapter bulletin* for the scheduled CLUPC meetings and Public Hearings.

Public Hearings and Meetings

Strategy: Invite public input and comments during CLUPC meetings, Public Hearings and Chapter Meeting agenda items related to land use planning, projects and community planning.

1. All Chapter residents are invited to attend the Land Use Planning Committee meetings. Comments from the audience will be requested during the meetings and the CLUPC Secretary will take notes of these comments for inclusion in the planning process.
2. The CLUPC will hold special public education sessions for the community when there are important policy decisions or projects which need to be discussed.
3. At least one Public Hearing will be held related to projects and land use planning policy. The Public Hearing will be held prior to a specially scheduled Chapter Meeting. All directly effected parties will be given an opportunity to present their support or objections to the project. Adequate time will be provided during the Public Hearings to take comments and questions from the audience. The CLUPC and the Chapter Officials will also discuss their responses, questions and concerns and take any official action during the meeting.

COMMUNITY EDUCATION

It is critical in any democratic system that the members of the community have opportunities to become educated in the issues facing the community. Land use policy and individual development projects can have impacts on the community which are complex. It is important to provide community education to help Chapter Members and residents understand how land use planning decisions will affect their lives.

Strategy: Increase community and CLUPC knowledge of planning principles and project findings, analysis and results.

Community education in planning can take several forms:

- Have the CLUPC, project sponsors, consultants and other experts provide educational presentations at CLUPC meetings.
- Have the CLUPC organize and conduct community education sessions on planning issues and specific projects.
- Invite Staff members from various departments of the Navajo Nation to make presentations during CLUPC Meetings.
- Have the CLUPC or a project's sponsor make a longer educational presentation at the beginning of a Public Hearings to inform chapter members as to 1) The proposed project or policy, 2) The CLUPC's recommendations, and 3) The Chapter's options or next steps.

Strategy: Increase community member and CLUPC knowledge of Navajo Nation land use related laws.

It is important that members of the CLUPC, the Chapter Officials and the Chapter Members learn more about land use laws in the Navajo Nation Code and the Federal Statutes. Some of these topics are listed below:

- Land Use Withdrawal Process
- Lease arrangements: homesites, business, church lease (issues which CLUPC might consider – how applicant intends to build, ROW, water lines, utility lines)
- Grazing Act & ordinance
 - Outdoor recreation activities/ permits
 - Wood cutting/hauling ordinance
- Zoning ordinances & commission
- Land Use Variances
- Eminent Domain Requirements
- Water Quality and Navajo EPA
- Alternative forms of government (AFOG)

A copy of the document, *Navajo Property Law*, by Raymond C. Etcitty is included in the Addenda section of this plan.

The CLUPC/ Chapter Officials should plan additional training sessions and community education sessions.

Strategy: Encourage Chapter residents and public involvement in the land use planning process by providing presentations or focus sessions to community groups when needed.

The CLUPC public participation plan goals include an objective to conduct either focus groups or make presentations to groups within the Chapter area including: grazing permittees, businesses, community organizations and churches.

COMMUNITY LAND USE PLANNING COMMITTEE (CLUPC) RESPONSIBILITIES

The CLUPC will serve as the advisory committee to the Chapter Officials and the Chapter on land use and development project issues. The CLUPC Mission Statement is written below:

Using the resources available to the community, the Piñon Community Land Use Committee will work together and maintain communication with public and private sectors of the Piñon community to conduct planning that meets the needs of today as well as anticipates future needs. The Piñon CLUPC will act in good faith and the best of their ability:

1. To inform community members of CLUPC activities and decisions through public education and participation efforts,
2. To establish a comprehensive land use plan including planning for land use, community infrastructure (utilities, roads and transportation), open space and recreation, community facilities, and public safety,
3. To obtain Resources and Development Development Committee of the Navajo Nation Council approval and certification for the plan, and update every 5 years and obtain re-certification of the plan,
4. To use the comprehensive land use plan as a guide and resource for the CLUPC and Chapter on proposed development projects, land withdrawals, home site lease applications, business lease applications, utility line extensions and community facilities,

**CLUPC Mission
Statement Continued**

5. To assist the Chapter in strategic planning for the community including the development of goals and objectives, community priorities and action plans,
6. To develop a growth management master plan, zoning ordinances and other land development standards and guidelines that will help ensure that new growth and projects within the Chapter area are built in a manner that protects the health, welfare and safety of residents and visitors,
7. To develop plans for streets, traffic and community transportation needs,
8. To develop plans for cultural and civic centers and other community facilities,
9. To ensure that the Chapter's land use and land development planning activities are consistent with Navajo Nation and Federal guidelines, and
10. To guide growth and development in a way that enhances the quality of life for Chapter members.
11. Work with the Chapter Officials to review the state of the Chapter on an annual basis and to determine concerns which need planning policy development or review. This task would include review of the Chapter's goals and objectives.
12. The CLUPC will eventually be the Chapter Planning and Zoning Commission.

REVIEW AND APPROVAL OF PLANNING POLICIES AND PROJECTS

Chapter review and approval will be the first step in the review and approval process for all land use and land development projects within the Chapter service boundaries. This will include submission of the following items which shall be referred to as “proposed projects.”

- Land Withdrawals
- Business Leases
- Church Leases
- Homesite Leases
- Infrastructure Improvements
- Master Plans and Land Development Plans
- New Construction Projects over ½ acre in size and/or 5000 square feet as these projects will have a significant impact on the Chapter's infrastructure capacity and ability to provide adequate services
- Comprehensive and Specific Land Use Plans
- Zoning Ordinances

All projects will go through a review process. Large projects will have additional requirements. Comprehensive and Specific Land Use Plans and Zoning Ordinances will have a separate review process. These are outlined in separate sections.

LARGE AND SMALL PROJECT REVIEW AND APPROVAL REVIEW AND APPROVAL PROCESS

Review and Approval Process for Proposed Projects

Small projects will be considered those which meet one or more of the following criteria:

- On a site which is less than two acres in size
- Projects with buildings less than 5,000 square feet of interior space
- Projects which generate less than 100 vehicle trips per day
- Projects which have a land use consistent with that shown on the land use map

Step One: Letter of Application

Submit a Letter of Application to the Chapter. This letter will describe the project, outline the requested action, list the name, address and phone number of the Applicant, and provide a location map and survey and site plan for the proposed project.

Step Two: Set Date for CLUPC Review

The Chapter will forward these requests to the Community Land Use Planning Committee for processing and review. The CLUPC will add the proposed project to the agenda for their next meeting or will set up a project review meeting, which will happen within two weeks of receipt of the Letter of Application. The Chapter will send a letter back to the Applicant letting them know the day, time and place of the review. The Chapter will also make a public notification of the review via a locally distributed and read newspaper. Such notice shall be provided at least 72 hours before the CLUPC Meeting.

Step Three: CLUPC Review and Recommendation

The CLUPC will review the proposed project in a meeting open to the public. The Applicant will have an opportunity to present their proposed project and to answer questions regarding the project. Chapter Members and members of the public will have an opportunity to express their support or concerns regarding the project. The presiding member of the CLUPC will have the authority to set a time limit on public comments as long as that time limit is applied equally to all commenters and the time limit is stated at the beginning of the comment period.

The CLUPC will then discuss and consider the proposed project and may request additional information from the Applicant. The CLUPC has the authority to set conditions and/or requirements on the project.

The CLUPC will take action to make a recommendation regarding the proposed project and will submit this recommendation to the next Chapter Planning Meeting. The CLUPC has the ability to table or postpone this action to later meetings if additional study or information is needed.

Step Four: CLUPC Recommendation Submitted to Chapter

Once the CLUPC has made its recommendation to the Chapter Planning Meeting, the CLUPC Secretary will write up a recommendation report along with a request for the item to be placed on the agenda for the Chapter Planning Meeting to be considered for approval at the next scheduled Chapter Meeting. The Chapter Administration will make copies of the recommendation report and will send one to the Applicant, post one on a public information bulletin board at the Chapter House, distribute a copy to each of the Chapter Officials and file a record copy at the Chapter Offices. The Chapter Administration can also post this information along with a notice of the next scheduled Chapter Meeting.

The Applicant will also receive written notice regarding the day, time and location of when the Chapter will review and take action on the proposed project. Such notice shall be provided at least 72 hours before the Chapter Meeting.

Step Five: Chapter Meeting Action

At the Chapter Planning Meeting, the Chapter Officials will discuss and consider the proposed project and may request additional information from the Applicant.

At the Chapter Meeting review of the proposed project, the Applicant will have an opportunity to make a presentation to the Chapter. Chapter Members and members of the public will have an opportunity to express their support or concerns regarding the project. The Chapter President/Vice-president will have the authority to set a time limit on public comments as long as that time limit is applied equally to all commenters and the time limit is stated at the beginning of the comment period.

A chapter member will make a motion to approve or deny the proposed project. The Chapter membership attending the meeting will then vote on the motion. The Chapter has the ability to table

or postpone this action to later meetings if additional study or information is needed.

The Chapter will then take action to forward the Chapter's decision to the appropriate Navajo Nation office in the form of a Chapter Resolution.

Step Six: Notification of Chapter Action

Within two weeks of the Chapter's action, the Chapter will send the Applicant a letter informing them of the Chapter's Action and a letter with the Chapter Resolution attached to the appropriate Division or Department of the Navajo Nation and/or the Bureau of Indian Affairs Office in Window Rock.

The CLUPC will then discuss and consider the proposed project and may request additional information from the Applicant. The CLUPC has the authority to set conditions and/or requirements on the project.

The CLUPC will then either schedule a next review meeting or will accept the Development Plan and take action to make a recommendation regarding the proposed project to the next Chapter Planning Meeting. The CLUPC has the ability to table or postpone this action to later meetings if additional study or information is needed.

Step Seven: CLUPC Recommendation Submitted to Chapter

Once the CLUPC has made their recommendation, the CLUPC Secretary will write up a recommendation report along with a request for the item to be placed on the agenda for the Chapter Planning Meeting to be considered for approval at the next scheduled Chapter Meeting.

The Chapter Administration will make copies of the recommendation report and will send one to the Applicant, post one on a public information bulletin board at the Chapter House, distribute a copy to each of the Chapter Officials and file a record copy at the Chapter Offices.

The Applicant will also receive written notice regarding the day, time and location of when the Chapter will review and take action on the proposed project. Such notice shall be provided at least 72 hours before the Chapter Meeting.

Step Eight: Chapter Meeting Action

At the Chapter Meeting review of the proposed project, the Applicant will have an opportunity to make a presentation of the Development Plan to the Chapter. Chapter Members and members of the public will have an opportunity to express their support or

concerns regarding the project. The Chapter President or his replacement will have the authority to set a time limit on public comments as long as that time limit is applied equally to all commenters and the time limit is stated at the beginning of the comment period.

A Chapter member will make a motion to approve or deny the proposed project and the Development Plan. The Chapter membership attending the meeting will then vote on the motion. The Chapter has the ability to table or postpone this action to later meetings if additional study or information is needed.

The Chapter will also take action to forward the Chapter's decision on to the Navajo Nation in the form of a Chapter Resolution; this Resolution will include the power and the conditions under which the Chapter can rescind project approval.

Step Nine: Notification of Chapter Action

Within two weeks of the Chapter's action, the Chapter will send the Applicant a letter informing them of the Chapter's Action and a letter with the Chapter Resolution attached to the appropriate Division or Department of the Navajo Nation and/or the Bureau of Indian Affairs Office in Window Rock.

Step Ten: Annual Chapter Review

The CLUPC and the Chapter will review the progress of the approved project and Development Plan on an annual basis. The Chapter reserves the right to rescind Chapter approval if the project is not following the Approved Development Plan and Conditions of Approval or if the project is not moving forward. The power to rescind and the conditions under which project approval can be rescinded will be incorporated into the Chapter Resolution approving the project.

The CLUPC may, but is not required to, inform the Applicant of their intention to review the project's approval. The CLUPC has the ability to table or postpone this action to later meetings if additional study or information is needed or if the CLUPC decides to invite the Applicant to make a presentation on the status of the project. Such notice shall be provided at least 72 hours before the Chapter Meeting.

After the annual review, if the CLUPC should decide that approval should be rescinded for a specific project, the CLUPC will take official action to recommend the rescinding action to the Chapter Meeting on the following month. Such notice shall be provided at least 72 hours before the Chapter Meeting.

Once the CLUPC has made their recommendation, the CLUPC Secretary will write up a recommendation report along with a request for it to be placed on the agenda for the Chapter Planning Meeting to be considered for approval at the next scheduled Chapter Meeting. The Chapter Administration will make copies of the recommendation report and will send one to the Applicant, post one on a public information bulletin board at the Chapter House, distribute a copy to each of the Chapter Officials and file a record copy at the Chapter Office.

The Applicant will also receive written notice regarding the day, time and location of when the Chapter will review and take action on rescinding project approval. Such notice shall be provided at least 72 hours before the Chapter Meeting.

At the Chapter Meeting, review of rescinding project approval, the Applicant will have an opportunity to make a presentation on the status of the project and the reasons why project approval should not be rescinded. Chapter Members and members of the public will have an opportunity to express their support or concerns regarding rescinding approval. The Chapter President/Vice-president will have the authority to set a time limit on public comments as long as that time limit is applied equally to all commenters and the time limit is stated at the beginning of the comment period.

A Chapter member will make a motion to approve or deny the proposed rescinding of project approval. The Chapter membership attending the meeting will then vote on the motion. The Chapter has the ability to table or postpone this action to later meetings if additional study or information is needed.

The Chapter will also take action to forward the Chapter's decision on to the Navajo Nation in the form of a Chapter Resolution.

Within two weeks of the Chapter's action, the Chapter will send the Applicant a letter informing them of the Chapter's Action and a letter with the Chapter Resolution attached to the appropriate Division or Department of the Navajo Nation and/or the Bureau of Indian Affairs Office.

LAND USE PLAN AND ZONING ORDINANCE REVIEW AND APPROVAL

When the new Zoning and Planning Commission is established, the future zoning ordinances shall be developed.



Sand Spring in Piñon Chapter

Every inch of ground, all vegetation and the fauna on it are considered sacred. There are no places that are holier than others. There are so many stories that go with the land that it would take more than twenty years to tell them. – Mamie Salt¹

¹ *Navajo Sacred Places*, Klara Bonsack Kelley and Harris Francis, Indiana University Press, Bloomington; 1994. Pp 28.

COMMUNITY ASSESSMENT

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PURPOSE

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COMMUNITY VISION STATEMENT

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COMMUNITY NEEDS, CONCERNS AND PRIORITIES

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COMPREHENSIVE PLAN GOALS & OBJECTIVES

PURPOSE

The purpose of the community assessment is to identify the guiding principles and vision regarding local planning and development as spoken and expressed by the community. For the Pinon Chapter, these guidelines are being developed out of community comments and information gathered from the following sources:

- Public Hearings held on April 10, 2017 and May 22, 2017 which focused on community issues and concerns;
- *Chinle Service Unit Community Assessment 2000*, source not identified;
- A review and analysis of U.S. Census Bureau data including data sets available for the 2010 census;
- Several focused sessions with the CLUP members and Chapter Officials to identify overall land use planning concerns and housing needs and issues.

Many standard planning concepts do not translate easily into Navajo – not only because of linguistic differences but also because of cultural differences and preferences. The result is that some of the overall vision and goal statements are interpolations of the community's statements into planning statements.



CLUP Committee members at workshop in Many Farms

COMMUNITY VISION STATEMENT

Ni' ascszáán dóó yádithít bit'ági nihe' iiná k'ii hii neez láó nee' nijí' nihi Dine'é biłyíikah doo. Siha singo 'anoot'iilgó, ajob' k'ehgo bee nida' ahinitxingo (yildahgo) bee sa' bee bii' na'hóót'í.

COMMUNITY NEEDS, CONCERNS AND PRIORITIES

The identification of community needs and issues is an evolving process as Chapter members become more familiar with the opportunities that both land use planning and LGA certification² have to offer.

Community Concerns

Land Use and Conservation

- Range Units Management plans are needed to preserve grazing land and to re-issue grazing permits to Navajo Partitioned Land Ranchers.
- Water conservation is important.
- Establish a township and town hall in Piñon.
- Develop a plan to mitigate hazardous and toxic materials at the following sites: the former Chee Southwest building and the former McGee Trading Post.
- Develop ordinance to prevent & control illegal trash dumping & assess fines
- Establish a new community cemetery

Community Development

- Establish a Public Safety and Judicial Complex
- Establish a Fire Station, and other facilities.
- CERT office and training facility.
- Establish a community college branch in the Community.
- Maintain a community rodeo/fair grounds.
- Create a local police system by using the 638 Process to contract with the Bureau of Indian Affairs (BIA) to create a local system.
- Use the 638 Process to contract with Navajo Partition Lands (NPL) to create a Chapter administered Grazing Permit Process.
- Establish Range Unit Management Plans for all Pinon units
- Establish plans for land and water restoration & conservation.
- Establish a public library for the Chapter area.
- A new Senior Citizen Center is needed.
- A community sports and recreation center is needed.
- Establish an outdoor walking trail & outdoor community recreation

² Navajo Nation Local Governance Act certification which will transfer certain governing powers to a Chapter and allow the Chapter more autonomous local governance.

- Community Veterans Multi-purpose facility

Economic

- Establish planning and business policies that support Piñon's development as a regional business and governmental hub.
- Establish a community bank in the Chapter area.
- An office complex is needed for small local businesses and for government services offices.
- Industry and manufacturing is needed to create more local jobs.
- Establish a business plan to develop renewable energy resources for the community.
- More restaurants, gas stations, auto repair services, feed store, veterinarian, beauty/barber shops & hardware are needed.
- Private dental and vision health services are needed.
- Improve Chapter Roads and roadway system.
- Improve Chapter Infrastructure.
- Streamline business lease process.

Housing

- Clan based group housing is needed. Clan-group housing is defined as the clustering of housing units owned and used by Clan relations or family groups.
- Rental housing (apartments) is needed for workforce housing.
- Housing is needed for veterans.
- Establish mobile home park
- Establish a Home Improvement Team
- Multi-purpose fitness center & playground

COMMUNITY GOALS & OBJECTIVES

The goals and objectives listed in the following chart were developed through concerns and issues expressed by Pinon Chapter members in public hearings and in work sessions with the CLUPC.

The goals are comprehensive and address both land use and other issues that need to be addressed in administering the Chapter. The chart is organized by:

- topic area,
- community needs and concerns,
- goals, and
- objectives.

Goals are statements which express the vision of the community – that is, how people would like to see their community in the future. Objectives are statements of actions that need to be taken to reach the vision.

Together the goals and objectives are a very useful tool for Chapter administration. They provide an outline of actions that need to be taken and can be used by Chapter leaders, staff and members to make decisions

on annual work plans and budgets. Ideally, a Chapter will have not only an annual plan but also a 5 year plan and even a 10 year plan. In this way, larger efforts – such as building a new child care center – can be achieved through smaller tasks which are achieved each year.

Goals and objectives should be reviewed every year. This helps provide the Chapter with a “mile marker” that shows how much has been achieved during the past year and a useful way to plan for activities for the next year. When the Community Based Land Use Plan is adopted and approved, these goals and objectives will need to be resubmitted every five years for re-approval.

The goals and objectives for the Piñon Chapter are given in the chart on the following pages.

BE'AK'ID BAA' AHOOD ZÁNÍ CHAPTER
(Piñon)
COMMUNITY BASED LAND USE PLAN: COMMUNITY GOALS AND OBJECTIVES
FEBRUARY 2017

	COMMUNITY ISSUE/CONCERN	GOAL	OBJECTIVE
LAND USE AND LAND CONSERVATION			
LIVESTOCK/GRAZING	There needs to be good grazing areas because livestock is important to Diné culture and to resident's livelihood.	1. Establish range units plans as required by the mandated public Law BIA Grazing Regulations 25CFR 161 as a way to better manage grazing land in the open space area	1. Establish Range Management Unit plans to revitalize the forage. 2. Educate the community on the purpose of the proposed Uniform Grazing Act and the need for land restoration.
	People do not know how to properly take care of their livestock and some livestock is abused.	2. Create a Chapter Humane Society program. 3. Create a Chapter education program on livestock care and management.	
	People have to rely on the mobile veterinarian or go to Chinle for veterinary services.	4. Establish a local veterinary service.	
	No Valid grazing permits for community livestock producers	5. Comply with local grazing carrying capacity regulations to obtain grazing permits	- Comply with BIA vegetation studies to raise healthy livestock
LAND CONSERVATION (SEE ALSO AGRICULTURE BELOW)	Some of the land has been overgrazed or is in poor condition (does not have good livestock capacity). Land restoration is needed.	6. Reseed rangeland with seeds and plants native to the area. 7. Help educate Chapter area youth on land conservation	• Contact the Youth Council of Piñon and Future Farmers of America about setting up local programs regarding land conservation.
WATER RESOURCES	Water conservation planning is needed, especially during drought periods.	8. Increase the amount of water that seeps into the local water table.	• Re-habilitate existing earthen dams, windmills & natural springs • Re-habilitate existing gabions & build new gabions • Build water catchments

	COMMUNITY ISSUE/CONCERN	GOAL	OBJECTIVE
WATER RESOURCES CONTINUED ...	More water resources are needed for agricultural and livestock uses.	9. Improve and expand the existing systems.	<ul style="list-style-type: none"> • Inventory the existing resources and system to see what repairs and improvements are needed. • Contact the Navajo Nation Water Resources Division to see if financial and technical assistance is available and financial assistance for conducting a local water resources study. • Develop more dams • Plan for the use of spreader dikes • Repair broken windmills/wells. & extend sucker rods to reach water table/source. Use solar pumps instead of windmills. • Proceed with Chapter Resolution of 3/11/03 to rehabilitate existing earthen dams.
	More water resources are needed for domestic use.	10. Improve and extend the existing water systems to serve the residents in the northwest and west of the Chapter area.	<ul style="list-style-type: none"> • Plan for funding in 2018. Continue to work with Office of Environmental Health Services
	Develop new sources of water and protect existing sources of water.	11. Protect the Chapter's continued use access to and use of the N Aquifer as the primary water source for the Chapter area in order to assure the best quality water for Chapter residents.	Continue to protect existing sources of water.
AGRICULTURE	Residents would like to do more farming but conditions are difficult, especially during drought periods	12. Create opportunities for family gardens & greenhouses	<ul style="list-style-type: none"> • Develop more water resources for farming: <ul style="list-style-type: none"> ◦ Drip irrigation systems
	COMMUNITY ISSUE/CONCERN	GOAL	OBJECTIVE
	Increase community knowledge of agricultural	13. Educate community youth in good growing practices.	<ul style="list-style-type: none"> • Establish a working garden with the High School – using

	techniques and the benefit of locally grown organic crops.	14. Establish a community nutritional program based on produce grown locally.	greenhouses. Establish 30'X30' residential gardens with drip irrigation.
LIVELIHOOD AND ECONOMIC DEVELOPMENT			
LOCAL ECONOMIC AUTONOMY		15. Establish an Alternative Form of Government (AFOG) -a township and town hall in Piñon. Develop and establish a Planning and Zoning Commission	Create a business and tax plan to return the taxes to the community. Obtain community approval.
	COMMUNITY ISSUE/CONCERN	GOAL	OBJECTIVE
LOCAL ECONOMIC BASE INDUSTRIES	The Chapter still has a high unemployment rate and high level of poverty. More job opportunities are needed in the local economy.	16. Establish local economic base industries.	<ul style="list-style-type: none"> • Locate a company for industry like microchip, assembly, etc,
	Expand Health services for chronic diseases	17. Build a facilities for dialysis treatment	<ul style="list-style-type: none"> • Create more employment opportunities in the health fields
	Expand the local health clinic	Increase the health services.	<ul style="list-style-type: none"> • Create employment
DINÉ BE ÍÍNÁ	Look to cultural traditions, skills and lifestyles as a means to improve the livelihood and economic conditions in the area. There is an opportunity because the Black Mesa region is well known for the quality of its mutton.	18. Re-establish a strong local economic base industry around traditional sheep culture.	<ul style="list-style-type: none"> • Encourage the re-introduction of the Churro Sheep. • Establish a local wool grading authority. • Establish locally based wool marketing and processing industry. • Establish local felt manufacturing. • Explore the possibility of using the old Chapter House for the wool processing enterprise. • Establish wholesale and retail meat marketing using local mutton. Establish a meat packing plant.
	COMMUNITY ISSUE/CONCERN	GOAL	OBJECTIVE
DIBÉ BE ÍÍNÁ			<ul style="list-style-type: none"> • Provide Chapter support and

CONTINUED			<p>participation in the Sheep is Life celebration.</p> <ul style="list-style-type: none"> • Provide Chapter support for the Black Mesa weaver's association – Kéyah bíná (Life & Land Organization)
	Other livestock can also contribute to the local economy.	19. Establish marketing and sales for other livestock.	<ul style="list-style-type: none"> • Establish a better quality livestock.
	Reduce the excessive amount of horses/burros in the community	20. Market horses to interested bonded buyers	<ul style="list-style-type: none"> • Support the roundup of horses/burros
	COMMUNITY ISSUE/CONCERN	GOAL	OBJECTIVE
FARMING (SEE ALSO AGRICULTURE ABOVE)	Local farmers have a limited an outlet for their produce & limited retail venues for fresh produce.	21. Create a local farmer's market.	<ul style="list-style-type: none"> • Support a local farmer's market & flea market. • Build greenhouses to support local farming activities.
SERVICES	Piñon is a local center for retail, education and government services – this provides an opportunity to expand the service industry base.	22. Another restaurant, beauty salon are needed. 23. Private dental and vision health services are needed. 24. Organize the flea market so that it has a permanent space.	
	Local businesses and residents have to travel to Chinle to do their banking. Also local money does not stay in the local economy for very long.	25. Establish a community bank in the Chapter area.	
	Local businesses and others such as government agencies are not able to find adequate office space within 10 – 15 miles of Piñon. This is defined as space with phone lines installed and support facilities.	26. Create an office complex with small offices and modern office conveniences such as installed phone lines, fax and copy services, conference room, etc.	Establish permanent post office, office services, coffee shop, conference rooms, office spaces for government agencies
	Working parents do not qualify for HeadStart and some have difficulties finding	27. Create a child care facility that caters to the needs of working parents.	<ul style="list-style-type: none"> • Expand the HeadStart facility to accommodate childcare for working parents. There is a plan

	reliable childcare.		for this facility and it has a site.
MANUFACTURING	Unemployment is high in the Chapter area and more jobs need to be created.	28. Manufacturing enterprises are needed to help create more job opportunities. 29. Explore the abandoned mining facilities at Peabody	<ul style="list-style-type: none"> • See Dibé be ííná above • Explore the potential of local materials for use as building materials including: gravel crushing, stone and wool for insulation.
	COMMUNITY ISSUE/CONCERN	GOAL	OBJECTIVE
TOURISM	Opportunities exist to attract more tourists to the Piñon area.	30. Support local entrepreneurs in local small tourism business: locally owned bed and breakfast facilities. Support existing and expand weaving classes and workshops. Create horse stables for horseback riding.	Sponsor business startup classes. Educate on available resources
HISTORIC AND CULTURAL PRESERVATION			
		31. Identify our Clan roots. 32. Revive the Dine Language, traditions, teachings, culture & self-identity through arts, crafts, songs, games & cooking.	Community Wellness activities throughout the Dziłyijiin region incorporating Dine Traditions & culture Several local groups (ABNDN, BMW, IHS mental health staff, PUSD & PCS) are trying to teach the history to develop their knowledge of their culture
	COMMUNITY ISSUE/CONCERN	GOAL	OBJECTIVE
TRADITIONAL AND SACRED SITES	Traditional and sacred sites could get damaged or destroyed by growth and development.	Identify traditional sites. Natural springs, herb gathering sites, Develop a culture center/library highlighting the local history & people	Ask elders and medicine people to help identify sites that need to be protected. Establish buffer zones around these sites and use the land use plan to protect them from growth and development.
TRADITIONAL LIFE STYLE	Livestock is important to maintaining T'áá Dinéji.	33. Encourage the re-establishment of herds of Churro Sheep. 34. Ceremonies to keep life in balance	<ul style="list-style-type: none"> • Sheep shearing activities • Hozhojii, puberty ceremonies, blessings ceremonies, lifeway,

		<p>35. Seasonal activities: planting: seed to harvest, cooking/preserving traditional foods, butchering, livestock maintenance, clan gatherings & storytelling & singing. Morning exercise & running.</p> <p>36. Medicinal plants herbs gathering & preservation</p>	<p>blackening, lightening, Nidaa, Yei bi Cheii, etc...</p> <ul style="list-style-type: none"> Horse racing, traditional marathons, shoe & stick games, songs
COMMUNITY SERVICES AND FACILITIES			
	The Chapter area needs a place where families can hold family gatherings.	37. Establish a community picnic ground – this would include picnic tables, trash cans, arbor, benches & fire ring	Build a picnic site at chapter house grounds.
	Young people in the community do not have a safe place to gather, to learn and to enjoy recreational & health education and other activities.	38. Create a community youth center. 39. Develop outdoor recreation site & facilities	Rehabilitate outdoor basketball court, softball field, and establish volleyball area. Work with local schools, colleges & universities to sponsor sports clinics
	The current Senior Citizen center is not accommodating our elderly needs.	40. Plan & build a new senior citizens' center with adjacent assisted daycare facility.	<ul style="list-style-type: none"> Seek funding to build the new facility
	COMMUNITY ISSUE/CONCERN	GOAL	OBJECTIVE
	Public safety is an issue.	Plan & build a public safety complex.	Public Safety Complex is planned for Piñon, located on a site north of Navajo Nation Shopping Center and will include a police station, a judiciary branch and a corrections center. CERT offices and fire station
	The public need a place to do research, study and to borrow books.	41. Create a public library.	<ul style="list-style-type: none"> Seek funding for construction planning and management
	Chapter residents must travel a long distance to receive education beyond high school.	42. Establish the community college to begin classes year 2018	Continue expedite the withdrawn land clearances & planning process for a community college branch facility in the Chapter area.
HOUSING			
	Many homes in the Chapter	Build replacements homes for	Utilize HUD housing funds

	area are in substandard condition	dilapidated housing.	
	The population is growing and there are not enough homes.	43. Construct new homes on an annual basis.	Incorporate plans for Clan based subdivisions into the land use plan. Clan subdivisions is defined as housing clustered together and serving family groups. The grouping of home would share amenities and main utility lines. Utilize HUD housing funds
	Workforce rental housing is not available. People who are not Chapter members are employed and reside in Piñon and have a difficult time finding housing.	44. Construct new workforce homes for workforce people. Create rental housing available to people employed in the local area.	<ul style="list-style-type: none"> Utilize HUD housing funds Local NHA housing director has incorporated into the Pinon a 5 year plan
	Many homes in the Chapter area are in need of home improvement & renovation	45. Repair, upgrade & rehabilitate existing homes	<ul style="list-style-type: none"> Establish funding source through chapter house to match dollar for dollar up to set amount. Utilize USDA Section 504 Train a certified application packager
	Lack of college housing for planned Community College	46. Construct new college homes for college students. Create rental housing available to students & their families in the local area	<ul style="list-style-type: none"> Local NHA housing director has incorporated into the Pinon 5 year plan
	Lack of elderly housing for community	47. Construct new elderly homes	<ul style="list-style-type: none"> Utilize HUD housing funds Local NHA housing director has incorporated into the Pinon 5 year plan
	COMMUNITY ISSUE/CONCERN	GOAL	OBJECTIVE
INFRASTRUCTURE			
DOMESTIC WATER	See domestic water resources above.		WORK ON NEW PUMP STATION
WASTEWATER	Federal projects related to wastewater in the area are on hold and the existing system serving the Piñon village area cannot handle any new development.	48. Expand the existing system serving the Piñon village area to meet future growth and needs.	<ul style="list-style-type: none"> Assess the current system and develop plans for improving and expanding the system. Assess the use of small, onsite, pre-engineered aerobic wastewater treatment systems for

			clusters of homes, facilities and buildings which cannot be served by the centralized system. Develop systems to use recycled water for recreation, landscape and supplemental domestic uses – such as toilets. Work On New Pump Station
SOLID WASTE	There is illegal trash dumping and littering all over the Chapter area.	49. Seek funding to assist with a public education program regarding the dangers of illegal dumping. 50. Organize an annual community cleanup program using volunteers. Develop a recycling center.	<ul style="list-style-type: none"> Educate Chapter residents about the importance of having and using a sanitary waste removal system. Write and submit a request to the Environment and Safety section of Indian Health Service for a public education program.
ELECTRICAL POWER	The following areas in the Chapter do not have electrical service: Thorn Valley & new homes.	51. Establish or extend electrical service to homes in these areas.	<ul style="list-style-type: none"> Contact NTUA about extending the electrical lines. Continue investigating the use of solar electrical generating systems which could be installed in these areas.
COMMUNICATIONS			
TELEPHONE	Current land line service only serves the Piñon Village area and cell phone service is not reliable.	52. Expand land line telephone service to other parts of the Chapter area.	<ul style="list-style-type: none"> Investigate ways to improve service
	COMMUNITY ISSUE/CONCERN	GOAL	OBJECTIVE
TRANSPORTATION			
	The Chapter area's major roads and school bus routes needs to be improved to avoid school cancellations & meet existing and future needs. Delayed response by Public Safety, EMS	53. Funding needs to be established to address the road problems in the communities 54. Establish a long term plan for roadway improvement and public transportation 55. Increase the current 15 mile per chapter to 50 miles per chapter	<ul style="list-style-type: none"> The Navajo Nation needs to major fund the roads on the Navajo Nation to improve overall conditions The Chapter has a 20 year road improvement in Pinon: N8031, N8072, N8073(N), N8062, N8030, N8032, N4, N41, N8073 (S) & N4 paved
	Pave the N8031 route between Pinon and Hardrock	56. Complete N8031 to connect to Turquoise Trail with the bridge	Obtain approval from Hopi tribe and retain approval & funding for construction
	Need to continue to increase	57. Address problem areas on the	The Navajo County needs to

	the amount of red dog gravel being put on the community roads	community roads 58. Provide gravel to residential/Connecting/extending roads as sweat equity projects	participate with more funding into the red dog gravel project. Need more coordination with NDOT, BIA & proactive participation by Chapters
	Culverts on the main community roads need to be replaced with new ones	59. Studies need to be completed to get correct size of culverts	Request NDOT to complete drainage studies & obtain correct culvert sizes: N8031, N8072, N8073(N), N8061, N8030, N8032, N4, N41, N8073(S)
	N8073(S) was not completed due to incomplete studies	60. Complete the entire N8073(S) loop	Have NDOT complete the studies and fund the remaining portion of road to complete gravel project.
	N8032 needs to be graveled to connect to both N8031 & N41	61. Complete graveling of N8032	Have NDOT & BIA complete ADT study.
	Develop our own Chapter aggregate pit	62. Select sites and test material	NDOT will obtain testing & assessments for the selected sites
	N4 and N41 needs maintenance to address all safety hazards	63. Have NDOT & BIA fix safety hazards	Re-paint the pavement lines. Repair fencing Clean out the cattle guards
	Accelerate & decelerate lanes need for future Public Safety & Judiciary Complex on N41	64. Put in proposed projects for N8031 pavement funding	Chapter will continue advocating with BIA engineer to include in N8031
	Pedestrians safety is an issue on N4 & N41 between the clinic and schools	65. Sidewalks need to be planned and installed for safety reasons	Need to seek funding to build sidewalks for pedestrian safety
OPEN SPACE AND RECREATION			
	Areas of the Chapter should be left in a natural state to allow for a sense of openness, to preserve views, and to provide for outdoor recreation.	66. Establish a long term open space plan for the Chapter area.	<ul style="list-style-type: none"> Designate areas in the land use plan to be kept open and undeveloped for grazing. These areas will also help provide open space.
	Illegal wood cutting & wood hauling.	67. The Navajo Nation Forestry need to enforce limiting wood cutting.	<ul style="list-style-type: none"> Develop and pass an ordinance to control and protect the area Wood cutters/haulers to get wood from the Peabody lease area.
	Protect wildlife for animals to provide living space for wild animals	68. Respect and share space with wildlife as has been done for generations.	<ul style="list-style-type: none"> Co-exist with the "wilderness areas" in the land use plan. These areas would be kept in

			<p>their natural state and development would not be allowed. Areas to be included are:</p> <ul style="list-style-type: none"> ○ Sunshine Mountain, ○ Wepo Wash Ridge, and ○ Burnt Corn Ridge.



Rock Formations in White Valley

...Look on all land as our land. All things on it and all people that are on it are in our care. Our songs and ceremonies call us caretakers of this land for all people. We have been taught to take care of this land in a way so that all people will benefit and all living things.

— Mina Lansa, of Old Oraibi¹

¹ *Between Sacred Mountains: Navajo Stories and Lessons from the Land*, Larry Evers, editor, Sun Tracks and the University of Arizona, Tucson; 1982. Pp.xi.

INVENTORY & ASSESSMENT OF PERTINENT EXISTING DATA TABLE OF CONTENTS

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PURPOSE

The purpose of the data assessment is to determine if there are conditions which will affect the future use of the land. The report looks at conditions related to land, water, air and living things. Then how people have lived on the land is evaluated and finally recommendations are made as to how the land can be best protected and used.

This assessment will help the community make decisions regarding:

- Areas of land which need special protection,
- Environmental problems which need to be addressed,
- The use of land within the Chapter area,
- Whether a certain site is feasible for a proposed land use, lease or land withdrawal, and
- Where it would be good to place different land uses.

For the Pinon Chapter, the evaluation was based on the following sources of information:

- Chapter Images: 1996,
- Navajo Historic Preservation Department maps and review,
- Navajo Department of Water Resources data and materials,
- Navajo Department of Fish and Wildlife recommendations,
- Navajo Forestry Department materials, and
- Other sources.

A complete list of reference materials and information resources is listed in the Acknowledgment section of the report.

DESCRIPTION OF THE CHAPTER AREA

Here nature knows us. The earth knows us. We make out offerings to certain trees, certain rocks, to natural water springs, on top of hills. This is where we make our offerings. We have songs and prayers. Our history cannot be told without naming the cliffs and mountains that have witnessed our people. – Ruth Yinishye²



White Valley Panorama

The Chapter area is an approximately 141,540.281 acres or 132 square mile³ area located on Black Mesa north of the Hopi Partition Lands Boundary in Arizona. The Chapter boundaries extend along First Mesa to the north and south of Navajo Nation Highway 4 as it crosses through the valleys of the Burnt Corn, Wepo, White Valley and Oraibi Washes.

Along the eastern edge of the Chapter is Whippoorwill Spring Mesa, to the south is the Hopi Partition Lands boundary, to the west is Oraibi Wash and to the north are east and west Steep Hill valleys. The community of Piñon lies in the center of a high plateau.

The Chapter area lies in the middle of four primary mesas which have special significance in the traditional Diné view of the world. These mesas make up part of the figure of Pollen Woman: she *rests her head at Navajo Mountain, her body at Black Mesa, and her feet at Balakai Mesa.*

² *The Way of the Earth*, T.C. McLuhan, Touchstone, New York; 1994. Quoted in Parlow, *Cry, Sacred Ground*, p. 52.

³ *Pinon Chapter Water Plan Little Colorado River Basin*, Water Management Branch, Department of Water Resources, The Navajo Nation; September 17, 2002. pp 8.

Her arms lie in Shonto Wash. Her cane [or spinning tool] is Aghaalá, a tall black rock near Kayenta. She rules all water and water creations.⁴ It is said that Whippoorwill Springs Mesa and Low Mountain are the kidneys of Pollen Woman. Some Navajos also suggest that Comb Ridge is one arm, a monocline near Marsh Pass the other, and Tuba Butte and El Capitán are her breasts.⁵

She is matched by a male figure that lies along the Chuska and Carrizo mountains. *His head is Chuska Peak or Tohatchi Mountain, his body is the Chuska-Tunicha range, while his lower extremities are the Carrizo Mountains, with his feet located at Beautiful Mountain, New Mexico. He holds in one hand a bow or a sacred medicine pouch, which is Shiprock.⁶ It is also said that, His legs lie at the Carrizos, his neck at Béésh Lichíí' ii Bigiizh (Red Flint or Narbono Pass), and his head at Chuska Peak. He is in charge of all plants and wildlife.⁷*

Mapping for the area will use the USGS 7.5 minute Pinon, Pinon NW, Hole in Rock Valley and Burnt Corn Spring Quadrangle maps.

⁴ Ibid, pp. 6

⁵ *Sacred Land Sacred View*, Robert S. McPherson, Brigham Young University/Charles Redd Center for Western Studies, Salt Lake City, Utah; 1992. pp 21.

⁶ Ibid.

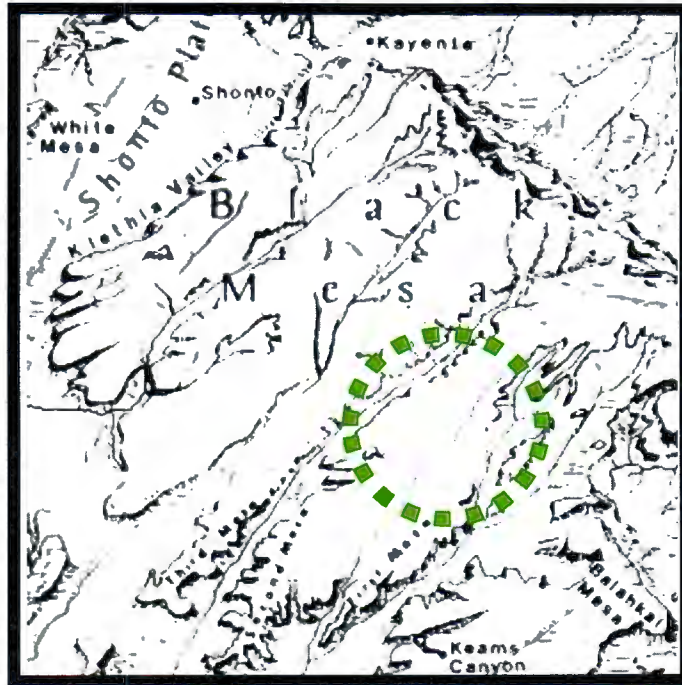
⁷ Ibid, pp. 6

NATURAL RESOURCES INVENTORY & ASSESSMENT

LAND RESOURCES

Land Form

Major features of the Chapter area are the relatively flat and gently sloping plateau in the middle section, the ephemeral⁸ Wepo and other washes, the Burnt Corn Valley, Oraibi Wash and White Valley and the higher, hilly area of Sun Mountain, Little Black Spot Mountain and other mesas.

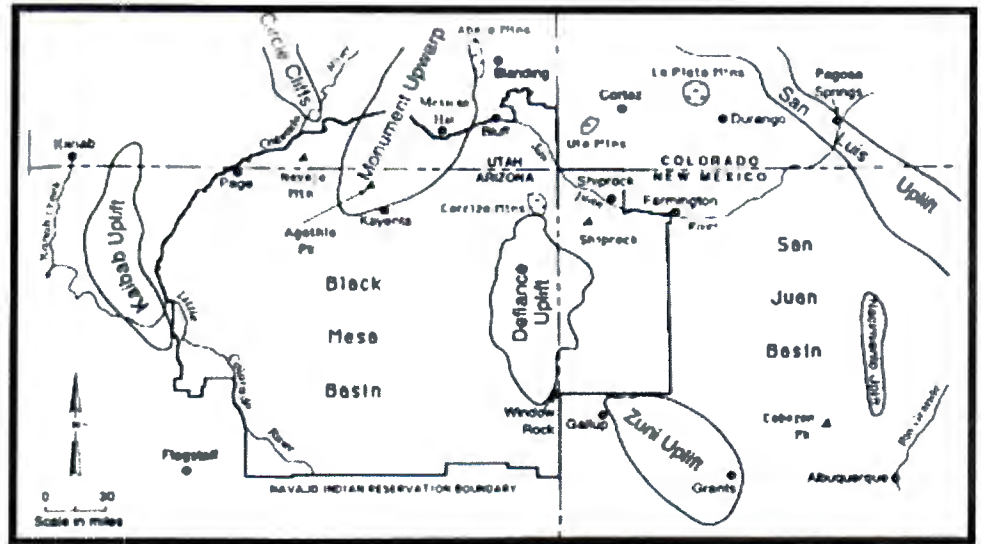


Land Forms in the Pinon Chapter area⁹ - Chapter is within the dotted circle

Elevations range from 6100 feet above sea level to around 7633 feet at the top of Sun Mountain.

⁸ Not a permanently running stream, water runs only once and a while.

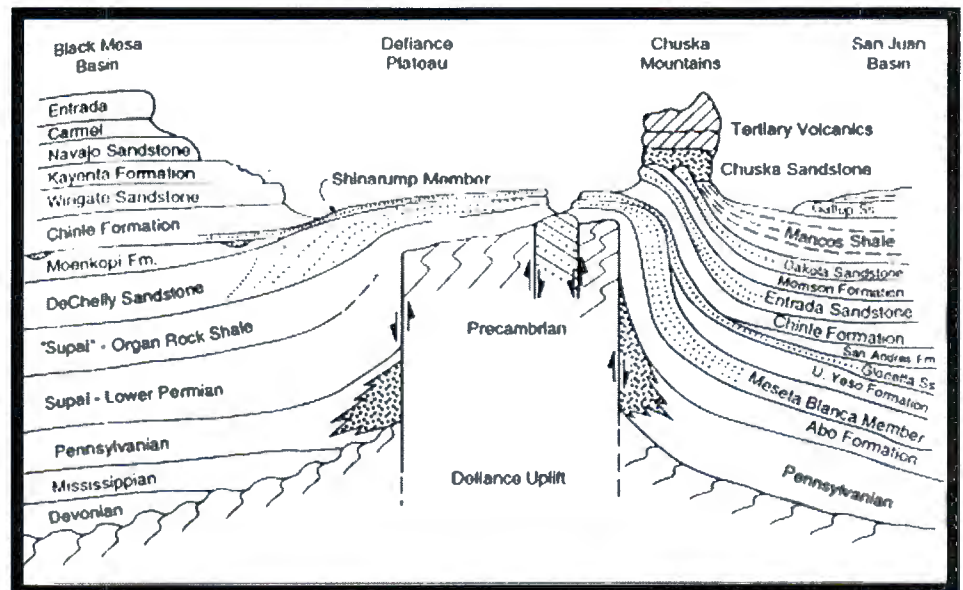
⁹ *The Navajo Atlas*, James M. Goodman, University of Oklahoma Press, Norman; 1971. p 30.



Major geologic structural features in Navajo Country.¹⁰

Geology

The Chapter area is located in the south-central portion of the Colorado Plateau physiographic province. The project area is also part of the central section of the Black Mesa Basin. Sedimentary rocks in the area are primarily of the Mesa Verde group.



Cross Section showing geologic relationships across the Southern Defiance Uplift and the Chuska Mountains.¹¹

¹⁰ *Navajo Country*, Donald L. Baars, University of New Mexico Press, Albuquerque; 1995. p. 5

¹¹ *Navajo Country*, Ronald L. Baars, University of New Mexico Press, Albuquerque; 1995. p. 87

Black Mesa's Cretaceous strata dips westward ... The mesa is topped with rocks of the Mesa Verde Group, a three-formation group with lagoon mudstone and coal sandwiched between two thick units of near shore sandstone. Below it is a gray, piñon covered slope of Mancos Shale, another Cretaceous unit, which contains beautiful, still pearly fossil shells of ammonites and other marine mollusks. A thin ledge of Dakota sandstone separates the Mancos from a lower slope-former, the Morrison Formation, a widespread Jurassic unit as colorful as the Chinle Formation of the Painted Desert.¹²

The Quaternary alluvial deposits are valley fill material of recent age, composed of interbedded silts and sands that have not yet been subjected to compaction and, in duration, lithification processes. The Triassic Age Sonsela Member of the Black Mesa formation is predominately sandstone, brown to dark in color.¹³

Artesian water sources in the Chapter area come from the Navajo Sandstone layer and the Chinle Sandstone layer as seen in the diagram above. The Chinle Sandstone has two separate water bearing layers including the Shinarump formations.

Mineral Resources

No mineral resources in terms of oil, uranium, or coal have been commercially developed in the area. There are layers of coal deposits in the upper strata of the mesas. Coal is being commercially extracted at the Peabody Mine in the northwestern section of Black Mesa. There have been proposals made to open commercial coal mines in the Black Mountain area about 18 miles east of the Chapter House. There is also abandoned uranium mine at Forest Lake in Black Mesa, this site is about 14 - 20 miles northwest of the Chapter House.

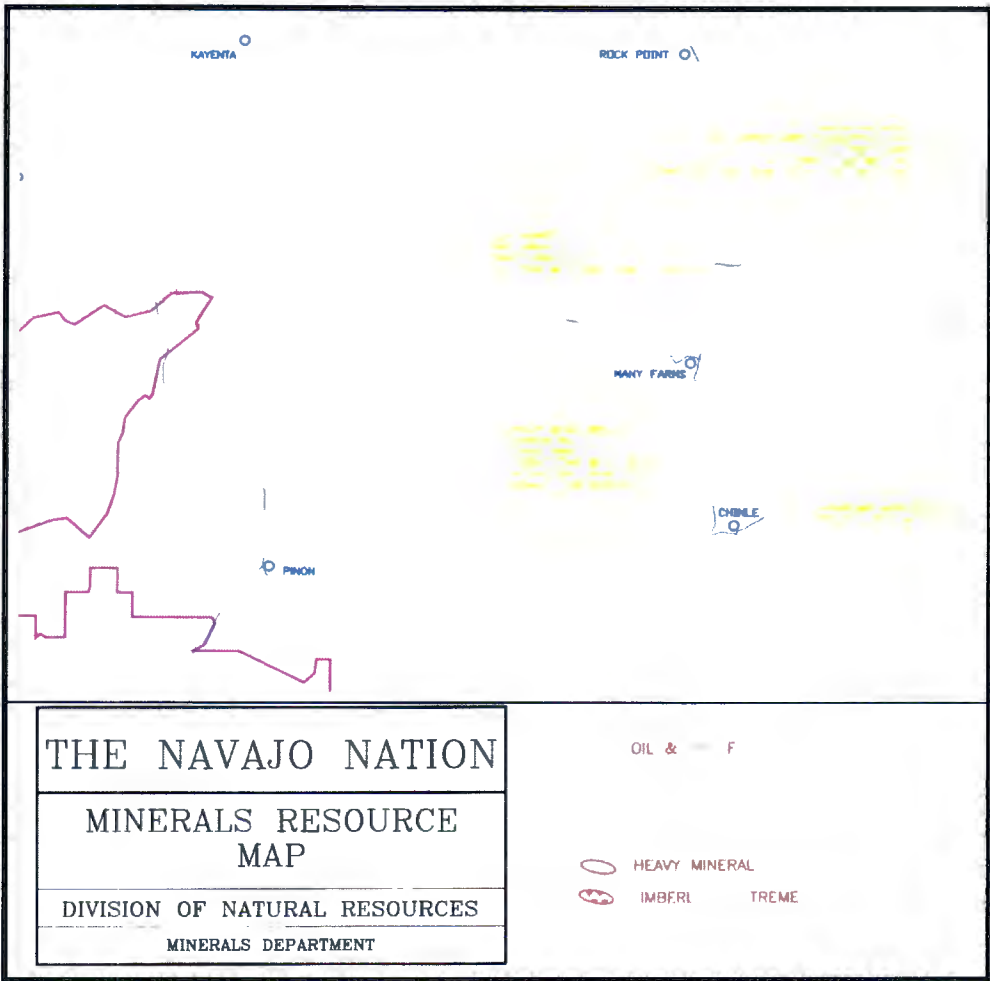
Mineral resources are the Navajo Tribe's principal source of income... Coal is found in extensive deposits in several structural basins on or near the reservation... The third major region is the Black Mesa area. Peabody Coal Company has large leases near the northern edge of the mesa, and prospects appear excellent for exploitable seams to extend south over major portions of the mesa as well.¹⁴

¹² *Roadside Geology of Arizona*, Halka Chronic, Mountain Press Publishing Company, Missoula, MT; 1983. P. 257.

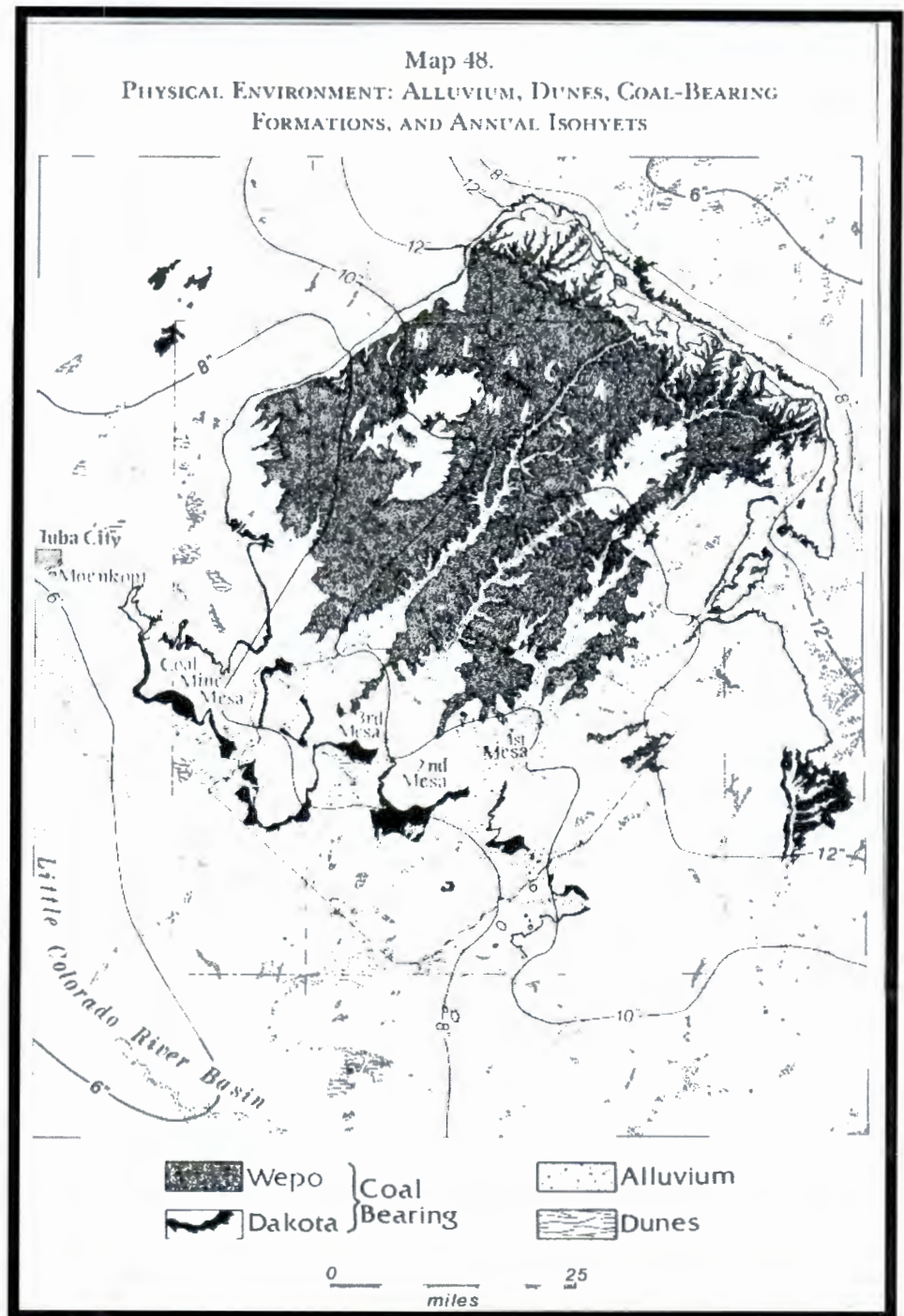
¹³ *An Environmental Assessment of a Proposed Community Facilities Project for Pinon Chapter*, Bitsui Environmental Consultant, March 29, 1996. Pp. 9.

¹⁴ *The Navajo Atlas*, James M. Goodman, University of Oklahoma Press, Norman; 1971. pp. 75.

The map below shows mineral resources in the general region of Black Mesa.

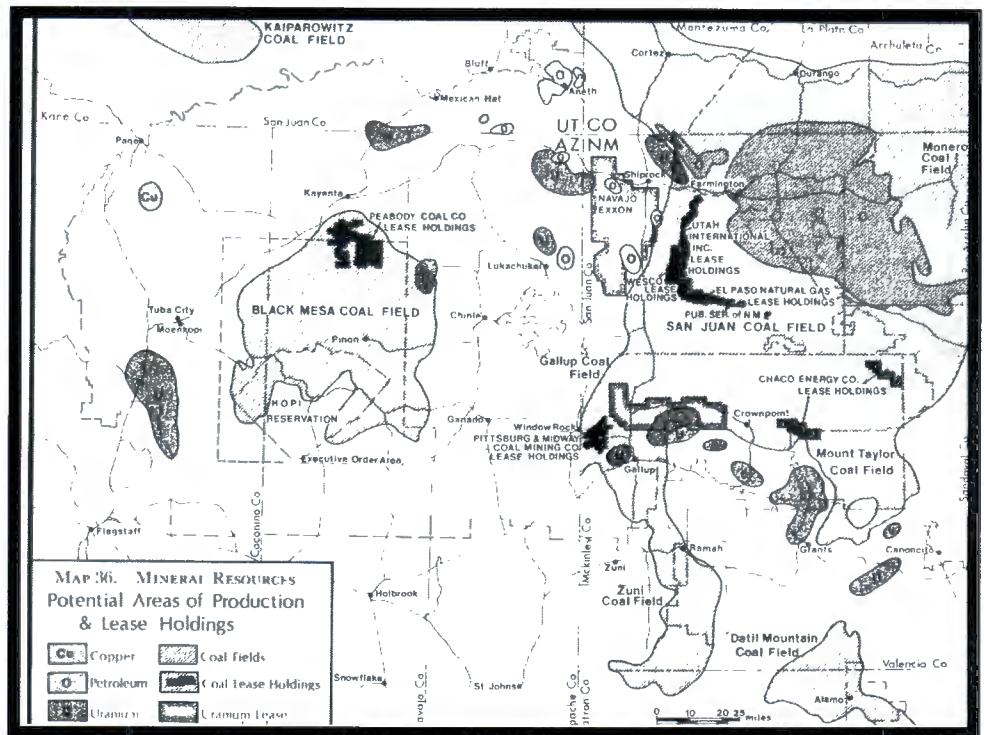


There are extensive coal deposits in the underlying strata of Black Mesa. Coal is not commercially mined in the Piñon Chapter. The maps below show the extent of coal deposits in the region.



Area of coal deposits on Black Mesa¹⁵

¹⁵ *The Navajo Atlas*, James M. Goodman, University of Oklahoma Press, Norman; 1971. p. 99.



Mineral resources in Navajo Country¹⁶

Soils are primarily unconsolidated loose sandy loams, poor in quality with low production potential. Soils in the area are classified as Haplargids, Torrents and in the washes, torrifluvents. A slightly differentiated strata layer was observed in a minor drainage at an approximate depth of 1.3 m (4.27 feet). Soil deposition mechanisms are both Aeolian and alluvial. The most cultivable soils may be found near the washes. The alluvial soils are derived from outcroppings of Mancos shale, Dakota sandstone and Toreva sandstone and mudstone occurring in the immediate area.¹⁷

Toxic Sites

The US Environmental Protection Agency report on Abandoned Uranium Mines Project – Navajo Lands indicated that three wells in the Oraibi Wash were tested and that an area with increased radiation contours was identified in the Two Red Rocks Valley area. Although most of these sites are not within the Chapter boundaries, they are close enough to the Chapter or within the same watershed as the Chapter that they may have some impact on the water quality of some Chapter residents.

The Abandoned Uranium Mines Project was conducted in the late 1990's and field work activities were ended on January 31, 2000. Aerial surveys

¹⁶ *The Navajo Atlas*, James M. Goodman, University of Oklahoma Press, Norman; 1971. p. 74.

¹⁷ *An Environmental Assessment of a Proposed Community Facilities Project for Whippoorwill Spring Chapter*, Bitsui Environmental Consultant, March 29, 1996. Pp. 9.

of gamma radiation were made by helicopter to identify areas which had a higher level of radiation than the surrounding areas. The Two Red Rocks Valley was one area with increased radiation. The EPA's List of Areas Memo dated February 20, 2000, does not include any additional data for the Two Red Rocks Valley as the "specific proximity to people and the land use" of the radiation source had not been evaluated.

Three water sources were tested in the Oraibi Wash area. One is within the Chapter boundaries and is a windmill located on the east side of the wash, a little southeast of the opening of the Two Red Rocks Valley and where the wash from the Replacing Cover Spring joins the Oraibi Wash. The second tested water source is Cliff Spring on the west side of the Oraibi Wash opposite from where West Steep Hill Valley joins the main wash. This spring is in the Black Mesa Chapter area. The last water source is at the Black Mesa Chapter House.

Generally, the tests resulted in levels of radioactive materials that were below the Minimum Detectable Activity level or were less than one pCi/L (pico-Curie per liter). The levels were not at a level where the site was included in the list of areas with actual or potential environmental problems.

Additional information is included in the Addenda section of this report.

WATER RESOURCES

Surface Water

There are no permanent rivers or streams in the Chapter area. There are no wetland areas. The area has four major washes and numerous smaller washes originating at the tops of the mesa and feeding into the main washes. Water experts call the washes ephemeral, which means that water only runs in them for a day or a very short period of time.

The overall drainage is south to southwest with minor washes feeding into Wepo wash in the central plateau area, the Burnt Corn Wash along the east side and White Valley feeding into Oraibi Wash on the west side. Wepo and Burnt Corn Washes flow into the Polacca Wash as does the Oraibi Wash near Red Lake. The Polacca Wash eventually runs into the Corn Creek Wash and then into the Little Colorado River near Leupp, Arizona. The Black Mesa area is part of the Little Colorado River Basin¹⁸ and is part of the Little Colorado River adjudication¹⁹.

¹⁸ A river or drainage basin is made of all of the washes, streams and rivers which eventually feed into that river and of all of the land that drains into the system.

¹⁹ Determination of water rights and use allocations by a Federal Court.

The Black Mesa area is part of the Little Colorado River water rights court cases.

The general stream adjudication is a judicial proceeding to determine or establish the extent and priority of water rights in the Gila River system and the Little Colorado River system. Thousands of claimants and water users are joined in these proceedings that will result in the Superior Court issuing a comprehensive final decree of water rights for both river systems. The adjudications are conducted pursuant to Arizona Revised Statutes sections 45-251 to 45-264.

The ... Little Colorado River adjudication traces its origin to proceedings initiated in the 1970s under the then-existing general adjudication procedures set forth in Arizona Revised Statutes sections 45-231 to 45-245. ... On February 17, 1978 and on April 19, 1978, utilizing these same statutes, the Phelps Dodge Corporation filed petitions with the State Land Department to determine the water rights of the Gila River system and source and the Little Colorado River system and source.

In April 1979, the Legislature amended the general adjudication procedures. ... Under the amended statutes, the Little Colorado River Adjudication was transferred to the Apache County Superior Court where it is litigated under the caption *In re the General Adjudication of All Rights to Use Water in the Little Colorado River System and Source*, No. 6417.

These cases were assigned to the Maricopa and Apache County Superior Courts because these are the counties where the largest numbers of potential claimants reside. Pursuant to the amended statutes, summons were issued in both adjudications and served on potential claimants in each watershed. Copies of the summons were served upon all persons listed in the property tax assessments in each watershed and on all persons in the watershed who had, at the time, any kind of water rights filing on record with the Arizona Department of Water Resources (ADWR).

Little Colorado River adjudication started on December 23, 1985

More than 82,600 Statements of Claimant have been filed by over 24,000 parties in the Gila River Adjudication, and some 3,100 parties have filed 11,279 claims in the Little Colorado River Adjudication.

Any person or entity who uses water or has made a claim to use water, on property ... within the Little Colorado River system, potentially may be affected. The legislature has charged the Arizona Superior Court with quantifying and prioritizing validly existing water rights claimed in these watersheds. The final court decrees will establish the existence and ownership of claimed water rights, as well as important characteristics of the water

rights including location of water uses, quantity of water used, and date of priority of the water rights.

For information about statements of claimant, hydrographic survey reports, watershed file reports, copies of pleadings, filing or reviewing discovery information, or obtaining other publications and reference material concerning the adjudications:

Arizona Department of Water Resources
500 North Third Street, Phoenix, AZ 85004-3903
(602) 417-2442 (Phoenix area)²⁰
1-(800) 352-8488 or 1-(866)-246-1414 (toll free inside Arizona)

Surface Water Drainage

Surface water drainage stays mainly in the stream channels. Flooding occurs as flash floods and due to the speed and depth of the stream channels moves fairly quickly downstream.

There are a few earthen dams which were created to capture some of the runoff for livestock ponds, but do little to retain the majority of the flow or mitigate the erosion.

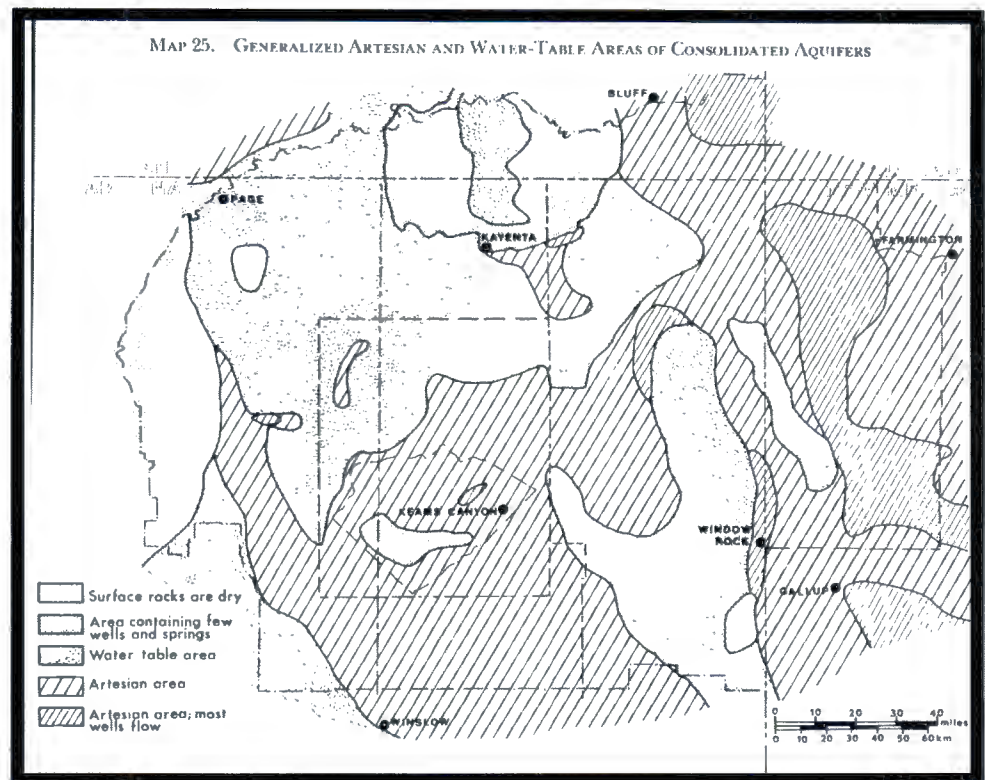
The combination of fast water runoff and the overgrazed condition of the land surface in the valley areas is part of an environmental cycle which is preventing the land area from regenerating as grazing land. This means that not only is the water not being trapped and retained on the flatter areas by vegetation, it is also running down the washes without having time to soak into the ground and help recharge the groundwater.

It would be better if the surface water flow and flash flooding could be partially controlled through the use of gabions or porous rock dams in the main channels of the larger washes. This would help slow the water down so that it could help recharge the groundwater and underlying aquifers.

It does not appear that FEMA or the Army Corps of Engineers have conducted flood plain studies for this area of the country. The Consultant has not been able to locate any other sources of data or information regarding flood plains and has base the assessment on anecdotal information provided by the community and a visual assessment of the land forms and topographical maps.

²⁰ General information regarding the Little Colorado River proceedings, from the Arizona Federal Court Water Master website, <http://www.supreme.state.az.us/wm>.

Groundwater



Water Table Areas in Navajo Country²¹

The chapter area is located over these aquifers: Mesa Verde, Navajo ("N"), Dakota ("D") and Coconino ("C"). Aquifers are layers of porous rock and rock materials that hold water. The aquifers are named by the layer of rock where the water is found. The water in different aquifers is usually of different geologic age, and of different qualities. Aquifers are the source of well water.

The *Water Resources Development Strategy for the Navajo Nation*, prepared by the Navajo Nation Department of Water Resources in 2000, gives the following description of the aquifers used in Pinon. Notes have been added in parentheses from data reported in a study produced by the Natural Resources Defense Council. The aquifers are listed below in order of depth from the surface.

Mesa Verde and M or Morrison Aquifers

The San Juan Structural Unit includes several formations that are primarily located within the State of New Mexico. The major water bearing formations that provide water to Navajo public water systems are

²¹ *The Navajo Atlas*, James M. Goodman, University of Oklahoma Press, Norman; 1971. p. 50.

the Morrison and Mesa Verde. (Water is of low quality and the level seems to be dropping.)

D or Dakota Aquifer

The D Aquifer is on the eastern portion of the reservation and is considered to have poor water quality. However, the communities of Tsayatoh, Sanostee, Smith Lake, and Casamera Lake, among others, depend on the D Aquifer. The Dakota Aquifer has an estimated recoverable volume of 50 million acre feet. (Water is of low quality and has been contaminated by pockets of naturally occurring uranium. It is not used for human consumption.)

N or Navajo Aquifer

The N Aquifer has less storage than the C Aquifer, but overall it has better water quality. The communities of Kaibeto, Kayenta, Piñon, Tuba City, and the Peabody Coal Mine, among others, depend on the N Aquifer. The Navajo Aquifer has a total storage of 290 million acre-feet. (Very pure water with concentrations of total dissolved solids in unfiltered water at less than 400 milligrams per liter and well below the Environmental Protection Agency's standard for drinking water. It is the sole source of dependable drinking water for Black Mesa.)

C or Coconino Aquifer

The C-Aquifer underlies most of the reservation in the Little Colorado River Basin. It is recharged from outcrops on the Defiance Plateau, the Mongollon Rim and the San Francisco Mountains. The communities of Cameron, Leupp, Ganado and Chinle, among others, depend on the C Aquifer for much of their municipal water supply. It is also a major source of industrial water for non-Indian communities in the Little Colorado River Basin. (This aquifer is at great depth in the Black Mesa area and is of relatively poor quality in this area as well.)

Hydrology of the Black Mesa Area

The following hydrological assessment comes from a report by LFR Levine-Fricke that was commissioned by the Natural Resources Defense Council. LFR Levine-Fricke is a professional hydrogeology firm based in Scottsdale, Arizona.

The black Mesa region of northeastern Arizona is located in the Plateau Uplands Hydrogeologic Province and is characterized by high isolated mesas and steep-walled canyons. The Black Mesa, with an area of approximately 5,400 square miles, is underlain by thick sequences of relatively flat-lying, well-lithified sedimentary rocks. The mesa land surface rises steeply on the east side to more than 3,000 feet above the surrounding lowland, while it slopes gradually toward the lowland to the west.

A thin veneer of recent unconsolidated sediments covers the surface of the mesa with floodplain alluvial deposits generally occurring in narrow bands along major drainage channels. The underlying sedimentary rock sequence, Permian too late Tertiary in age, is highly variable and consists of up to 10,000 feet of

interbedded sandstone, mudstone, siltstone, limestone, coal, and gypsum deposits (Lopes and Hoffman 1996).

Several water bearing zones (aquifers) underlie the Black Mesa area. The primary aquifer in the Black Mesa area is the Jurassic-age N-aquifer, which includes the highly productive Navajo sandstone and the underlying Wingate sandstone (Cooley et al. 1969). The N-aquifer is more than 1,200 feet thick in the northwestern portion of the mesa and thins towards the southeast corner of the mesa. The N-aquifer is unconfined around the margins of the mesa where it is exposed and overlying sediments have been removed by erosion. Beneath approximately 3,500 square miles of Black Mesa, however, the N-aquifer is fully saturated and confined by sediments of the overlying D-aquifer and Carmel formation (Lopes and Hoffman 1996). Recharge to the N-aquifer occurs primarily in the area near Shonto, north and northwest of the mesa, where the N-aquifer is exposed at the surface (Lopes and Hoffman 1996).

The D-aquifer generally consists of isolated thin sandstone layers of the Morrison formation and the Cow Springs member of the Entrada Sandstone, separated by thick sequences of lower permeability mudstone and siltstone (Cooley et al. 1969). The thickness of the D-aquifer varies from less than 100 feet in the area northwest of the mesa to 1,300 feet in the central portions of the mesa (Lopes and Hoffman 1996). Groundwater occurs under both confined and unconfined conditions within the D-aquifer. Hydraulic heads in the D-aquifer are as much as 600 feet higher than those of the underlying N-aquifer, resulting in a significant potential downward gradient towards the N-aquifer. Recharge to the D-aquifer primarily occurs along the eastern slope of the mesa where the units are exposed at higher elevations (Lopes and Hoffman 1996).

The D and N-aquifers are separated by a lower-permeability confining unit, or aquitard, consisting of the lower Entrada Sandstone and the Carmel Formation. This confining unit consists of generally less than 300 feet of mudstone and silty sandstone, which restricts the downward flow of poor quality water from the overlying D-aquifer into the underlying N-aquifer; however, recent studies have shown that leakage of poor quality water from the D-aquifer to the underlying N-aquifer may be significant in the southeast portion of the mesa (Lopes and Hoffman 1996).

Groundwater flow in the N-aquifer is generally from the recharge area north of the mesa, from surface elevations greater than 6,300 feet above sea level, towards the south-southeast beneath Black Mesa (Lopes and Hoffman 1996). Because the thickness of the N-aquifer decreases significantly in the southern portion of the mesa, the direction of regional groundwater flow beneath the

central portion of the mesa generally diverges towards the northeast and southwest (Lopes and Hoffman 1996). Groundwater from the N-Aquifer discharges to Laguna Creek and Moenkopi Wash, as well as to springs along the margins of the mesa where the N-aquifer outcrops. Water withdrawn from the N-Aquifer takes many years to be replenished through the recharge area; therefore, long-term impacts on the springs may result from groundwater pumping.

Precipitation in the mesa area ranges from 7 inches per year to 18 inches for year near Shonto and in the higher elevations of the mesa (Lopes and Hoffman 1996). Precipitation recharging the shallow unconsolidated sediments and the upper D-aquifer results in shallow flow outward towards the margins of the mesa and the occurrence of springs along surface drainage-ways.²²

Chapter Area well data

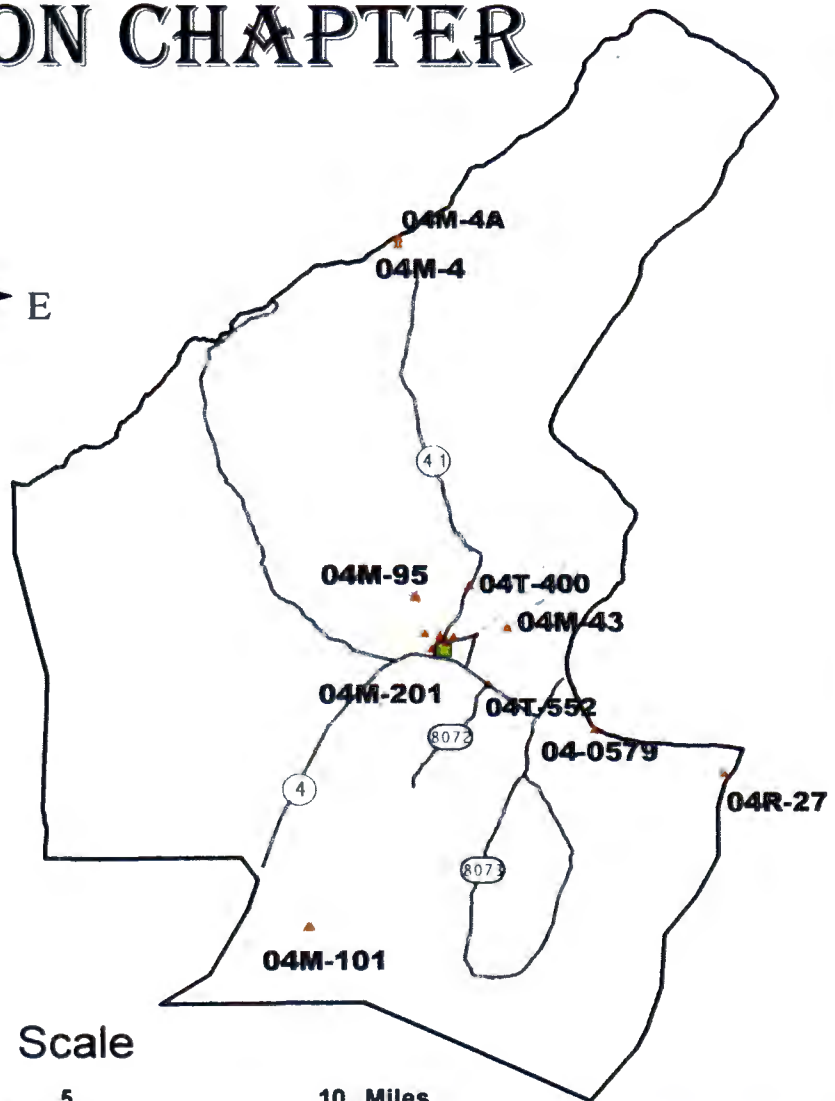
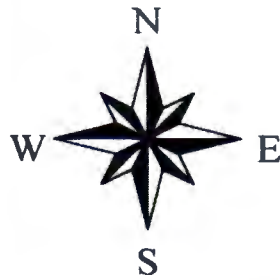
The major water supply for the piped domestic water system in the chapter area comes from the NTUA system. The other wells shown on the map are maintained by the Navajo Partition Lands Office, the BIA Hopi Partition Lands and smaller operators and subsidized by Tribal General Funds and community block grants.

The chapter area has numerous springs located along the base of the mesas. Many of these springs provide piped water to a small group of homes and many are in a natural state and are important both as a source of water for the customary use area families and for traditional practices. The location of all of the springs has not been mapped.

The location of the wells and well data within the Chapter area are shown on the following pages.

²² *DRAWDOWN: Groundwater Mining on Black Mesa*, David Beckman, et. al., Natural Resources Defense Council; October 2000. pp. 37-38.

PINON CHAPTER



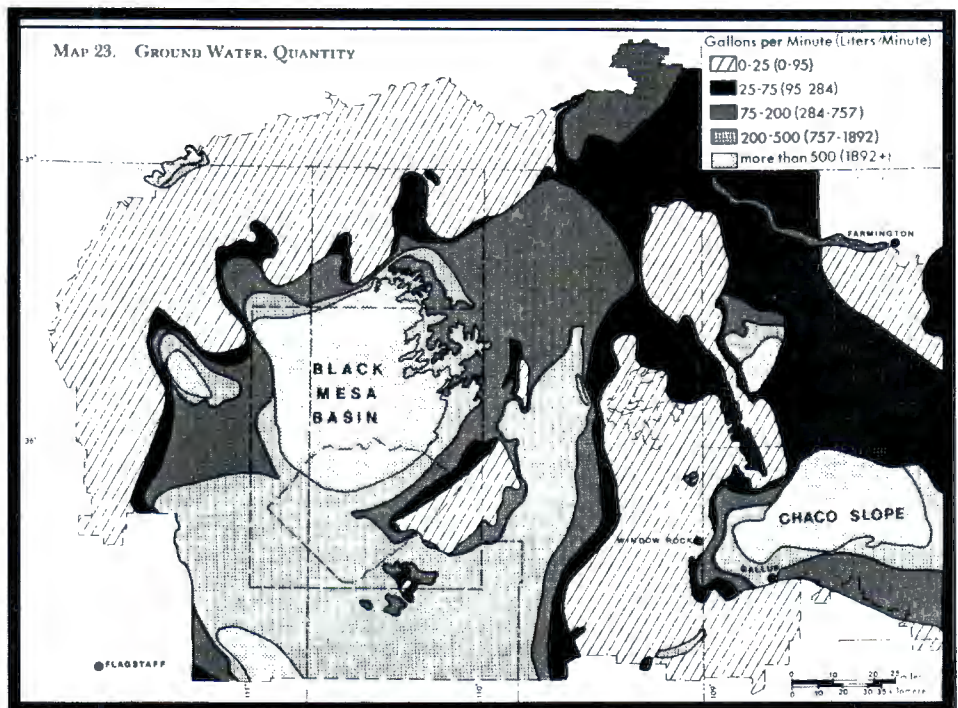
Scale

0 5 10 Miles

Legend

Navajo Nation
Department of Water Resources
Technical, Construction and
Operation Branch
P.O. Box 678
Fort Defiance, Arizona 86504
(928) 729-4003. Fax (928) 729-4029

- Major roads
- Water wells
- Dirt roads
- Pinon chapter house
- Dirt roads
- Pinon chapter boundary



Groundwater quantity in the western part of Navajo Country²³

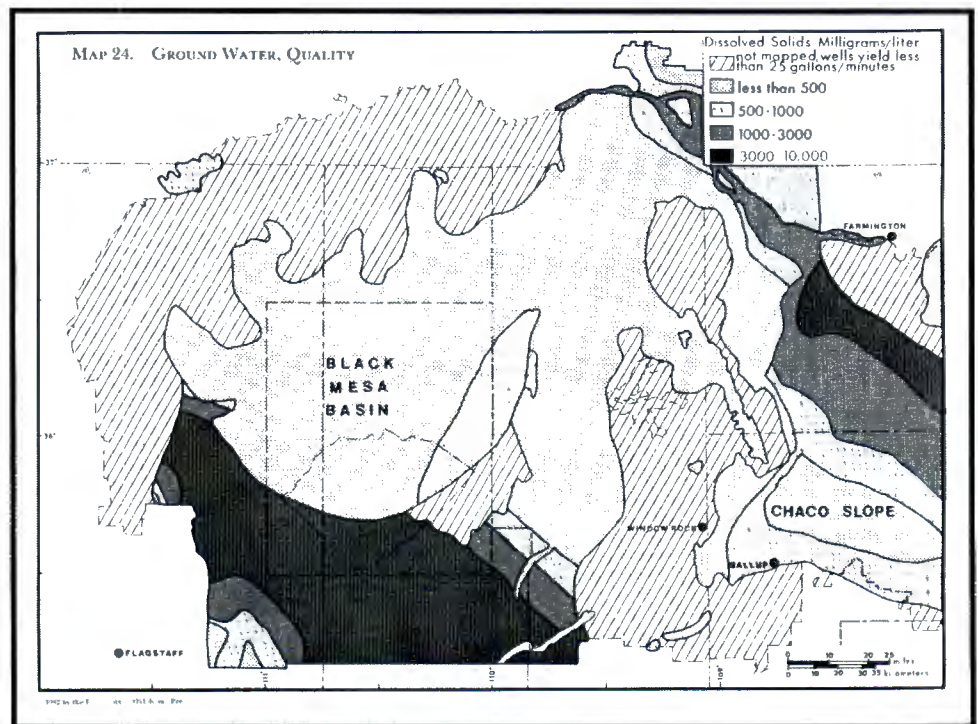
Water Quality

Water quality from the NTUA well is the best quality of water in the area as it comes from the Navajo Aquifer which has very ancient and pristine water. Water from the other aquifers is not as good.

The Ground Water Quality map shown below indicates that the groundwater in the chapter area has dissolved solids (salts) varying from very low at less than 500 milligrams per liter to good at 500 – 1000 milligrams per liter.

There are not any known point sources of groundwater pollution in the general region. However, individual well sites can be contaminated through septic systems which are located too close to the well or through contamination found in the piping system connected to the well.

²³ *The Navajo Atlas*, James M. Goodman, University of Oklahoma Press, Norman; 1971. p. 48.



Groundwater quality in western Navajo Country²⁴

Water Resource Management

The *Water Resource Development Strategy for the Navajo Nation* includes the following objectives:

- Establish a water resource development task force, which will coordinate technical and fiscal resources of the Navajo Nation and Federal Agencies.
- Prepare a reservation-wide needs assessment and prioritizing projects.
- Develop regional water supply projects.
- Develop and rehabilitate local water supply and distribution systems.
- Complete NIIP and continue to address deficiencies in water storage facilities.

The water resource management strategy recognizes that there will be some chapter areas, such as Pinon, which will not be included in the regional water supply projects. For these Chapters the report states:

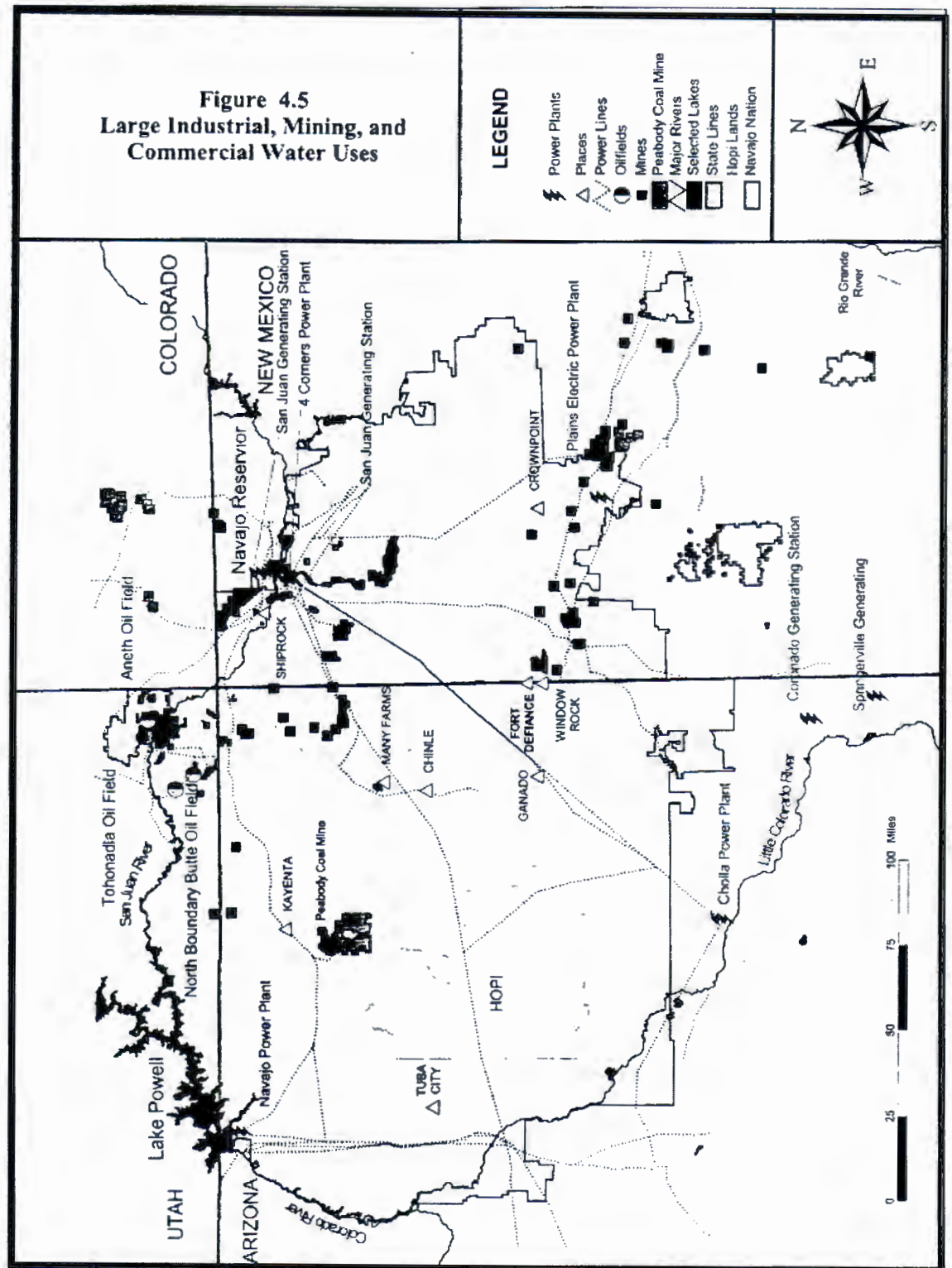
Even with the regional projects and the associated local distribution systems fully in place, approximately 40 percent of the

²⁴ *The Navajo Atlas*, James M. Goodman, University of Oklahoma Press, Norman; 1971. p. 49.

chapters will rely on other water supply sources and facilities. Many of these areas have systems that require rehabilitation, and many areas require new systems.

For areas where distribution systems are infeasible, community wells need to be upgraded and/or constructed to improve access for water haulers. The rehabilitation and development of local irrigation and livestock water systems is also an important component of the Strategy.

The Strategy also notes that part of the water resource management will be to clarify and secure Navajo water rights in the San Juan, Colorado and Little Colorado River basins as well as rights related to various aquifers such as the Navajo Aquifer.



Large Industrial, Mining and Commercial water users in Navajo Country.²⁵

²⁵ *Water Resource Development Strategy for the Navajo Nation*, The Navajo Nation Department of Water Resources, July 17, 2000. p. 37.

ATMOSPHERE

Climate

The climate in the project area may be characterized as “Arid Continental” with low humidity and high aridity. Annual precipitation ranges from 20.32 – 25.4 cm (8 to 10 inches) with 50% of the precipitation concentrated in the months of July through October. Annual snowfall is in the range of 20.32 – 76.2 cm (8 to 30 inches).

The area experiences well-defined seasons. The average maximum summer temperature is 35° C (95° F). The average minimum winter temperature is 12.2° C (10° F). The average daily ranges of temperature are relatively large. Frost free days are in the range from 120 – 170 days. The Table below shows weather data from stations in Keams Canyon and Piñon. The temperature data is from the Keams Canyon station which is about 20 miles south east of Piñon kintah and approximately 50 feet lower in elevation. Piñon is a little colder and a little less wet than Keams Canyon.

Month	Average Daily Max.	Average Daily Min.	Average Temperature	Average Monthly Precipitation
	Degrees Fahrenheit	Degrees Fahrenheit	Degrees Fahrenheit	Inches
JAN	43.2	15.8	29.5	0.6
FEB	48.7	20.5	34.7	1.1
MAR	55.2	24.8	39.9	0.5
APR	64.6	30.2	47.3	0.6
MAY	73.6	38.5	56.1	0.4
JUNE	84.7	46.4	65.7	0.1
JULY	88.9	55.0	72.0	1.3
AUG	85.6	54.5	70.0	0.7
SEPT	79.2	46.9	63.1	0.3
OCT	68.4	35.2	51.8	1.7
NOV	54.5	25.3	39.9	1.0
DEC	45.0	17.1	31.1	0.9
Yearly Average	66.0	34.2	50.2	9.1
Note: Data is for Keams Canyon, AZ; except precipitation data is for Pinon, AZ				
Data from WorldClimate website copyright 1996-2003 Buttle and Tuttle Ltd.,				

South to southwest prevailing winds are the norms, with wind speeds in the range of 25 – 30 miles per hour. Winds ranging from 60 – 80 miles per hour are not uncommon. As a result of these winds, sandstorms are a major feature of the area, especially in the spring.²⁶

²⁶ Ibid. Pp. 12. Data was abstracted from precipitation, temperature and soil water balance tables and graphs obtained from Dr. Robert Becker, Navajo Nation

Air Quality

An air monitoring station at Nazlini, Arizona indicates that most concentrations recorded were below the threshold of detection of the monitoring instruments and all levels of pollutants were at or below applicable Arizona and Federal ambient air quality standards. Total suspended particulates are high during the months of May, June, and July when dust storms are most prevalent. These high particulate values were probably caused by windblown dust.²⁷ During seasonal changes, the area has several emission factors contributing to inversions and haze in the valleys and mountains. The contributing sources being the wood and coal burning, slash burning, fugitive dust emissions from vehicular travel on unimproved roadways and some open burning within the community.²⁸

Visibility

Nazlini Station also conducts visibility monitoring. Processed data collections, including capture percentage by seasons, are as follows: Winter -- 90%, Spring -- 87%, Summer -- 87%, Fall -- 98%.

Visibility and TSP (total suspended particulate) are effected by blowing dust and sand during the spring months. Minor sources of air pollution arise from wood and coal burning.²⁹

Noise Pollution

There are no major noise pollution sources within or near the Chapter area. Traffic along Highway 4 does contribute to an increase in the overall ambient noise level. However, traffic along the highway is sporadic rather than constant and this cannot be considered to be a source of continual noise pollution.

VEGETATION AND WILDLIFE RESOURCES

Vegetation Zones

The Chapter area is within the upper Sonoran vegetation zone. On the Diné Bináhasdzo³⁰, areas within a range of 5,000 - 7,500 feet above sea level zone usually fall into this zone. In the Piñon Chapter area, this zone is defined by piñons, junipers and sagebrush. Where it is wetter on the tops of the mesas, there are more piñons. As the mesa tops transition down towards the plateau and valley floors there is a mix of juniper and piñons. And the valley areas are a mix of sagebrush and desert grasslands. Sagebrush generally needs deeper soils and where the soil is thin and in drier areas, there will be more short grasses.

Climatologist. The data is from a weather station located near Piñon, Arizona at an elevation of 6,353 feet above mean sea level. The location of the weather station is Latitude 36° 06" North, longitude 110° 14" East in Navajo County, Arizona. The data represent partial results arising from an 11-year data collection period.

²⁷ Ibid. Pp. 10

²⁸ Ibid.

²⁹ Ibid. Pp. 11.

³⁰ Navajo Reservation



NATURAL VEGETATION ASSOCIATIONS		
ASSOCIATIONS	LIFE ZONE and approximate ELEVATION RANGE	CHARACTERISTICS
NAVAJO AREA		
Spruce, Fir, & Aspen	HUDSONIAN 9,500 - 11,300 feet 2,895 - 3,446 meters	Vertical arrangement from highest to lowest elevation: spruce-fir - aspen - Douglas fir - ponderosa pine - ponderosa pine - gambel oak. Open areas of mountain grasslands occur in Chinle Mts. and Kaibito Plateau. Precipitation ranges from 18-30 inches (46-76 cm). Mean monthly temperatures range from 66°F to 35°F (19°C to -1°C).
Ponderosa Pine	CANADIAN & TRANSITION 7,500 - 9,500 feet 2,286 - 2,895 meters	
Piñon Juniper	UPPER SONORAN 5,000 - 7,500 feet 1,524 - 2,286 meters	Piñon grows in the higher, more moist areas; grasses downward are a dense sedge meadow and finally, one sagebrush plain. Sagebrush is commonly associated with deep soils. Short grasses generally occur where the soils are shallow. In the lower, drier sections of these zones, desert shrubs such as sagebrush, greasewood and shadscale in addition to some drought-resistant grasses - alkali sacaton, Indian rice grass, etc. prevail where soils are calcareous and salty. Precipitation ranges from about 8-18 inches (20-46 cm) and monthly mean monthly temperatures range from 32°F to 17°F (0°C to -13°C).
Sagebrush	LOWER SONORAN less than 5,000 feet less than 1,524 meters	
Colorado Plateau Desert Scrub		
AREAS MARGINAL TO NAVAJO LAND		
Alpine Tundra	ALPINE TUNDRA over 11,500 feet over 3,002 meters	Vegetation is sparse or absent. All mean temperatures on a average higher than 10°F (10°C); many below 32°F (0°C).
Chaparral	UPPER SONORAN 4,000 - 6,000 feet 1,220 - 1,830 meters	Megatheropis occurs on steep, rocky slopes which face south and are generally exposed to 17°F to 28°F (3°C to 8°C) and additional annual rainfall ranges 14-30 inches (36-76 cm). Small bushy trees prevail. Verbena, oak, mountain mahogany, etc.
Mohave Desert Scrub	LOWER SONORAN 2,500 - 5,000 feet 762 - 1,525 meters	Large areas of each surface station sets on these slopes. Some short grasses, Joshua tree, sagebrush and foxtail. Precipitation ranges 8-10 inches (20-25 cm). Mean monthly temperatures range between 28°F to 77°F (2°C to 25°C).
Sonoran Desert Scrub	LOWER SONORAN 1,000 - 4,000 feet 305 - 1,220 meters	Grasses, bushy shrubby black grass, tree and shrubs, etc.; and cholla, mesquite, creosote bush, etc. 11-14 inches (28-36 cm) annual precipitation, mean monthly temperatures range between 43°F to 80°F (6°C to 27°C).
NO NATURAL VEGETATION		
Cropland		
Lava with no or scant vegetation cover		

General Vegetation Chart for western Navajo Country³¹

³¹ The Navajo Atlas, James M. Goodman, University of Oklahoma Press, Norman; 1971., p. 40.

The following is a list of plant species typical to the area:

- Cheatgrass, *bromus tectorum*
- Blue Gamma grass, *bouteloua sp.*
- Prickly Pear, *opuntia sp.*
- Narrowleaf Yucca, *yucca angustissima*
- Salt Bush, *atriplex canescens*
- Shadscale, *atriplex confertifolia*
- Sage, *artemisa sp.*
- Cholla Cactus, *opuntia sp.*
- Wolfberry, *lyceum pallidum*
- Bunchgrass, *sorobolus sp.*
- Russian Thistle, *salsola kali*
- Indian Ricegrass, *oryzopsis humenoides*
- Snake Weed, *gutierrezia sarothrae*
- Wild Onion, *allium sp.*
- Vetch, *astragalus sp.*
- Paintbrush (Rabbitbrush), *castellija sp.*
- Spiny Cactus, *opuntia macrorrhiza*
- Treadleaf Groundsel, *senecio douglasii*

Forest Areas

The Navajo Nation Forestry Department's, Woodland Inventory Analysis Report shows the following forest resources:

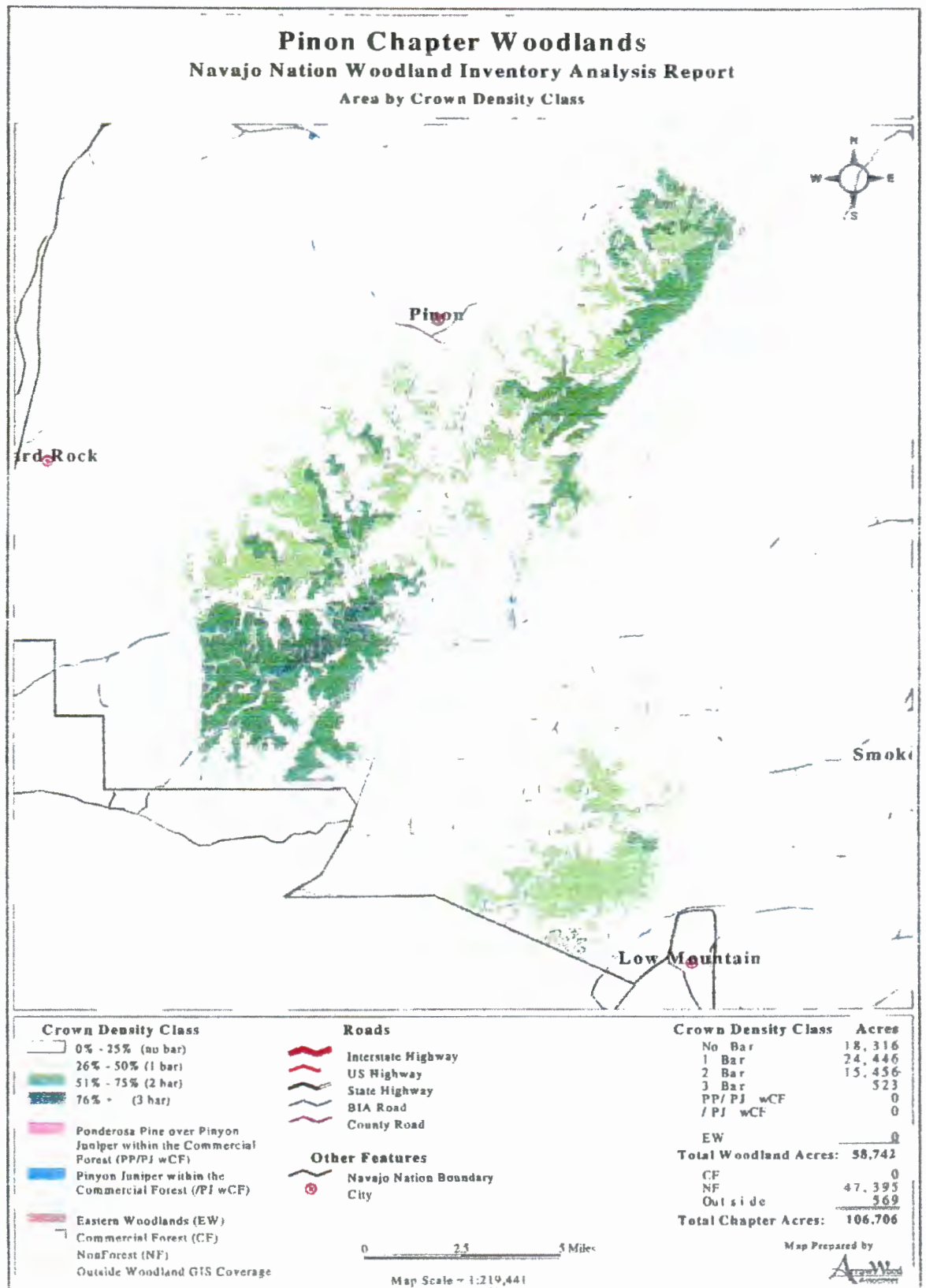
- Juniper – piñon mix at the higher elevations,
- Piñon – juniper mix on the tops of the mesas, and
- The areas in the central plateau and along the valley bottoms are not forested.

Note that juniper – piñon means that there are more junipers and less piñons and that piñon – juniper means that there are more piñons.

The Woodland Inventory provides data on crown density which shows how many trees there are in a given area. A higher number indicates more trees. Crown densities in the southeastern quadrant of the Chapter area varies from 0 – 50%. Along the western and northern sections of the Chapter area the densities increase to 51-76%.

There is a total of 58,742 acres of woodland, with a total Chapter acreage given as 106,706 acres.³² There is no Commercial Forest area in the Chapter.

³² The woodland inventory uses a Chapter boundary which is significantly smaller than the boundary recognized by the Chapter with the northern half of the Burnt Corn Valley and most of Sunshine Mountain not included.



Pinon Chapter area Woodlands Inventory by crown density class. Map from the Navajo Forestry Department.

The Navajo Nation adopted a new Forest Management Plan in the summer of 2001. The Consultant has not been able to obtain a copy of this plan from the Division.

Wildlife

The following species are typical and indigenous to the general area, the Diné word is given first, followed by the English name and the Latin name:

- Gáagii (crow), Raven, *Corvus corax*
- Gwëëg, Prairie Dog, *Cynomys gunnisonii*
- Gahtsoh, Blacktail Jackrabbit, *Lepus californicus*
- Gałbáhi, Desert Cottontail, *Sylvilagus auduboni*
- Tsin di'tinii, Spotted Ground Squirrel, *Suylvilagus pilosoma*
- Ma'ii, Coyote, *Canis latrans*
- Tsídiitbáhi, Sparrow, *Passer domesticus*
- Finch, *Carpodacus Mexicanus*
- Turkey Vulture, *Cathartes aura*
- Redtail Hawk, *Buteo jamaicensis*
- Horned Lark, *Cremophila alpestris*
- Dłó, ' átah né' éshjaa', Burrowing Owl, *Athene cunicularia*
- Long-billed Curlew, *Numenius americanus*
- Mountain Plover, *Charadrius montanus*

Other species which have been sighted in the area include: American kestrel, great horned owl, loggerhead shrike, western kingbird, lark sparrow, rock wrens, golden mantled squirrels, antelope ground squirrels, deer and porcupine.

The Navajo Nation Department of Fish and Wildlife is in the process of collating list of species found in different areas of the reservation.

Endangered and Threatened Species

The Navajo Nation Department of Fish and Wildlife is in the process of collating list of species found in different areas of the reservation.

The Navajo Nation Department of Fish and Wildlife have also prepared a zoning map for the protection of endangered and threatened species. A map of these zones is included in this report.

In the Pinon area, the Department is most interested in protecting eagle and hawk habitat. The environmental assessment³³ prepared by Bitsui Environmental Consultants for the Hooshdódii Tó development site, list the following endangered species located in the general area:

- 'Atsátsoh, Golden Eagle, *Aquila chrysaetos*: NESL³⁴ group 3; MBTA³⁵; and Eagle Protection Act.

³³ Ibid. Pp. 14.

³⁴ Navajo Endangered Species List

³⁵ Migratory Bird Treaty Act

- Ferruginous Hawk, *Buteo regulis*: NESL group 3, ESA category 2 candidate, and MBTA.
- Loggerhead Shrike, *Lanius ludovicianus*: ESA³⁶ category 2 candidate, and MBTA.
- Mountain Plover, *Charadrius montanus*: NESL group 4, ESA category 1 candidate, and MBTA.
- Peregrine Falcon, *Falco peregrinus*: NESL group 3, ESA Endangered, and MBTA.
- Black-footed Ferret, *Mustela nigripes*: NESL group 2, ESA Endangered, and MBTA.

The draft habitat protection zones³⁷ created by the Department of Fish and Wildlife are as follows:

Zone 1: Highly Sensitive/Restrictive Development

This zone contains the best habitat for endangered, rare and sensitive plant, animal, and game species, and the highest concentration of these species on the Navajo Nation. To protect the Navajo Nation's most sensitive habitats for plants and animals the NNDFWL advises no further business or residential development, permanent, temporary or seasonal.

Exceptions are not of concern if a biological evaluation determines the proposed development is within or adjacent to an area already developed and not close enough to habitat to cause long-term impacts.

"Adjacency" will depend on the species and situation, but generally means within 1/8th of a mile (to existing development)

Any proposed development within Zone 1 shall be submitted to the NNDFWL for review and comment. The NNDFWL will evaluate each proposed project for appropriate environmental impact. The NNDFWL has the authority to reject any project in its entirety or approve with conditions.

Zone 2: Medium Sensitive/Development with Careful Planning

This zone has a concentration of rare, endangered, sensitive and game species occurrences or has a high potential for these species to occur throughout the landscape. To minimize impacts on these species and their habitats and to ensure the habitats in Zone 1 do not become fragmented, the NNDFWL recommends that no development be placed in Zone 2 to avoid species and their habitat.

³⁶ Endangered Species Act

³⁷ From draft Chapter Land-Use Planning Zones provided by the Planner for the Navajo Nation Department of Fish and Wildlife. Draft document is dated 9/19/2001 and was prepared for the department by Atkins Benham, Inc.

Avoidance needs to include an adequate buffer to address long-term impacts. The buffer distance will depend on the species and the situation, and may be up to 1 mile.

As with Zone 1, any proposed development in Zone 2 shall be submitted to the NNDFWL for review and comment. The NNDFWL will evaluate each proposed project for appropriate environmental impact. The NNDFWL has the authority to reject any project in its entirety or approve with conditions.

Zone 3: Low Sensitivity

This zone has a low, fragmented or unknown concentration of species of concern. Species in this zone may be locally abundant of "islands" of habitat; but islands are few and far between.

Small scale development to serve the needs of individuals, such as homesites and utilities can proceed without concern for significant impacts to biological resources.

[Documentation of] Any development in this zone shall be provided to the NNDFWL for its files. No approval is required.

Community Zone

The NNDFWL has determined that the areas around certain communities do not support the habitat for species of concern and therefore development can proceed without further biological evaluation.

For certain communities, there are exceptions where one or two species have the potential to occur. For these exceptions, the biological evaluation need only address the one or two species.

[Documentation of] Any development in this zone shall be provided to the NNDFWL for its files. No approval is required.

Habitat Enhancement/Refuge/Preserve Zones:

These areas contain excellent, or potentially excellent, wildlife and/or plant habitat and are recommended by the NNDFWL for protection from most human-related activities.

They will be identified for each chapter on a case-by-case basis. A variety of protection techniques are available, and the NNDFWL is interested in working with the chapter and land-user to protect/enhance these habitats by providing technical assistance and possibly materials and labor. The NNDFWL is also interested in receiving proposals from chapters and land-users for these types of zones.

The zones are shown on the Land Use Map at the end of this report.

CULTURAL & COMMUNITY INVENTORY & ASSESSMENT

The gods and the spirits of the Sacred Mountains created Man. He was made of all rains, springs, rivers, ponds, black clouds, and sky. His feet are made of earth and his legs of lightening. White shell forms his knees, and his body is white and yellow corn; his flesh is of daybreak, his hair darkness; his eyes are of the sun. White corn forms his teeth, black corn his eyebrows, and red coral beads his nose. His tears are of rain, his tongue of straight lightening, and his voice of thunder. His heart is obsidian; the little whirlwind keeps his nerves in motion, and his movement is the air. The name of this new kind of being was "Created from Everything." – Navajo Wildlands, Stephen C. Jett³⁸

CHAPTER BACKGROUND & HISTORY

These men were historians and somehow they felt that what they had learned in a lifetime, should be preserved, should be written down on paper for the generations to come, who would be interested enough to have them to read and to study and that they would get benefit from it, and so, one day, my old man Sandoval came to Mesa Verde Park and he said: "My grandchild, I have known you from a little boy. The way I look at you, you were a good child and up to now, I know you are all right. Those are the kind of persons that we put these legends to them to carry on, but I am thinking that I can tell you, let us have it written down," so, for two weeks, we sat down and wrote down what he told us, and he said he would have about three or four more days to tell us most of what he knew,... The way he pictured a legend, what the Navajos go by, he said his life was like a good standing tree. We have four stages, the dark stage, the blue, yellow and white stage, where we are in the sun. This he told me, is from the dark stage and up, and is like the roots of the tree and it comes up to the white stage and right up the top. The big branches are ceremonials. It is with the people all over the country, and the small branches are with the people. "I have nothing to do with those and, once you get this down, grandson, you put your children to school and perhaps after they have gone through school, they might add a branch here and there and maybe five or six or seven generations, you might be able to get the whole tree back. That is up to the Navajos... He said: "If the Navajos do

³⁸ *Navajo Wildlands*, text by Stephen C. Jett, photographs by Philip Hyde, ed. Kenneth Brower, The Sierra Club Book and Ballantine Books, San Francisco; 1969. pp. 51.

progress, here is the question then. Where do we come from?
Where is our origin? That is the time this will be appreciated.”³⁹

Chapter Background and History

History is seen as an important aspect of any people and any community. History often gives us clues to present day community values, preferences and concerns. Understanding our history and reclaiming it can also show us opportunities for new directions and even solutions to land use, transportation and economic development planning.

Origins of the Diné.

The following section provides a brief summary of historic events, which are directly related to the Piñon area. The narrative does not attempt to provide a full history of the Diné and it closes in the late 1880’s. This is not to say that historic events of the past century have not had a significant impact on the people and the land of Piñon.

For 1200 years, or perhaps even 6 – 10,000 years⁴⁰, people have been living in the Piñon area. The early archeological evidence of human communities is found in the Anasazi remains and structures that can be found in Canyon de Chelly, Navajo Monument and scattered along the mesas in the Piñon area.

There has not been enough research conducted to adequately determine exactly when the Diné first moved into the Piñon area. Diné stories say that they emerged into the fifth world in the vicinity of Gobernador and Largo Canyons; and indeed the earliest excavations of Navajo habitations have been found in this headwater area of the San Juan River. Encircled by the four sacred mountains: Sis Naajini (Blanca Peak), Tsoodzit (Mount Taylor), Dook’o’ooshtíid (San Francisco Peaks), and Dibé Nitsaa (Mount Hesperus) this emerging place is known as Dinétah.

The scientific community has dated early Navajo sites in the Gobernador area around the 1300 – 1450’s. The Navajo language belongs to the Athabaskan family and it is generally believed that Navajo’s are part of a⁴¹ Southern Athabaskan group that moved south from north central Canada in the 11th century and arrived in the southwest in the late 1200’s.

The Diné have a strong tradition of oneness with the land, and fully believe they have been in the Southwest as long, or longer than anyone else. ...

³⁹ *For Our Navajo People, Diné Letters, Speeches & Petitions 1900 – 1960*, Peter Iverson Ed., University of New Mexico Press, Albuquerque, NM; 2002. Pp. 247-248.

⁴⁰ In the summer of 1971, archeologists with the University of New Mexico conducted a systematic visual survey of a 16 x 8 mile wide area centered within the boundaries of the Chaco Canyon National Monument. The survey uncovered evidence of human artifacts ranging in cultural age from the archaic to Basketmaker II. The archaic period ranges from the time of ancient hunters in 5,000 BC to shortly before the time of Christ. The Basketmaker II period spans from around 0 – 500 AD. – *People of Chaco, A Canyon and Its Culture*, Kendrick Frazier, W.W. Norton & Company, New York; 1999.

⁴¹ Although controversial, many traditional Diné believe that Dinétah is their place of origin and their stories have people splintering off and moving north.

Furthermore, many Diné clans identify different locations of origin... Some clans are also thought to have incorporated people from other cultures through the years, including Mohaves, Utes, Apaches, Zunis, and Mexicans. Some clans are known to have metamorphosed from pueblo ...groups migrating into Navajo territory in historic times. It seems entirely logical, if not likely, that similar groups were assimilated in earlier times, and that at least a portion of the Navajo culture evolved in place.⁴²

Diné were living in Round Rock by 1550 or earlier.

The Spanish arrived in this area around 1582.

The Navajos were defeated by the Spanish in 1675. Five years later the Pueblos revolted and drove the Spanish out. During this time and later when the Spanish returned, Pueblo people found refuge with the Diné.

The Diné fought against the Spanish for almost 200 years. This continued even after the end of the Mexican Revolution.

By the mid-1500's, the Diné had spread out as far as Black Mesa and we can assume that clan groups were well established in Piñon by that time.

Around 1582, a Spaniard, Antonio de Espejo led a small party from the Rio Grande and then west towards the Hopi mesas. In Cebolletta, just north of the current Laguna Indian Reservation, the group encountered "Querechos" (later translated as Navajos) and did battle with Querchos and Acoma at the foot of Mount Taylor. During this time, Navajo territory extended east to the Rio Grande valley and the late 1500's and early 1600's were marked by Navajo raids and harassment of the Spanish and Spanish slave raids on the Navajo. In 1675, the Spanish along with Pueblo allies launched a second raid on the Navajo "Casafuerte"⁴³ and defeated the Navajos. This victory was short lived. Five years later the Pueblo Revolt pushed the Spanish out of the Southwest. An unanticipated consequence of the Pueblo Revolt and the return of the Spanish twelve years later was a large exodus of Pueblo peoples into Diné Bikéyah where they sought refuge. It is possible that there was a transfer of art and technology between the groups during this time, and many say that this is when the Navajo learned masonry construction, pottery, weaving and farming.

Periods of intense fighting and then relative peace characterize the first part of the 1700's, and the Diné concentrated more of their efforts in fighting the encroachment of Ute and Comanche. In 1786, the Spanish made a tactical mistake and tried to consolidate negotiations with the Navajo under a single Navajo leader. They appointed two Navajo brothers, Don Carlos and Don Joseph Antonio, thereby ignoring the political structure of Diné society. Commitments made by the Antonio's were largely ignored by most clans.

By the end of the 1700's, the Diné had strengthened their alliances with the Apaches and together they began a nearly continuous 65-year war with the Spanish. The ending of the Mexican revolution in 1821, did not stop the raiding and warring. However, trade agreements between Anglo-American traders and the Mexican government increased their access to firearms and equipment, much to the disadvantage of the Diné.

⁴² *Navajo Places – History, Legend, Landscape*, Laurance D. Linford, University of Utah Press, Salt Lake City; 2000.

⁴³ Stronghold.

Diné Elders still tell stories that they heard from their parents and grandparents of the Spanish raiding parties and the fearful “ca-chung-ca-chung” noise of the armored men on horses.

When the USA took over the New Mexico Territory, life was still hard for the Diné. The first Navajo-American treaty was signed in 1846. Chief Narbono was one of the signers. The treaty lasted 5 days.

Ndahonidzood began in 1860. The Diné returned from the long walk in 1868.

During this almost two hundred years of wars and raiding, it is very likely that many of the Spanish raids passed through Piñon as they moved between the Rio Grande valley and into the Chaco River Valley and the Chuska Mountains. Historic records indicate the following activities, which may have involved the Piñon clans:

- 1805: Lt. Col. Antonio de Narbona moved through the Chuska Valley on his way to Canyon de Chelly where there was a bloodbath at Massacre Cave.
- 1823: Jose Antonio Vizcarra led an expedition up the Rio Puerco, Chaco Canyon, Chuska Valley, Canyon de Chelly, Black Mesa, Blue Canyon, Marsh Pass, Dinnehotso, the San Juan River and the Valle Grande – killing Navajos and capturing livestock.
- 1839-40: Two more raiding trips through the Chuska Valley into Canyon de Chelly and Black Mesa.

The situation for the Diné did not improve much with the appointment of Stephen Kearney to govern the New Mexico Territory. However, on November 21, 1846 the first Navajo-American treaty was signed at Ojo del Oso. Among the leaders representing the Diné was Narbono. The treaty failed five days later and began sixteen years of campaigns, battles, slave raids, broken treaties and an increasing distrust by the Diné of Americans. The hostilities culminated in the Ndahonidzood⁴⁴, which began in the summer of 1860 and did not end until the return of the Diné from Bosque Redondo in 1868. A few of the key events during this period include:

- The establishment of Fort Wingate at Ojo del Oso in August 1860.
- The death of the great Diné leader, Zarcillos Largos, in a battle with slave traders near what is now called Ganado.
- The massacre at Fort Fauntleroy in 1861.
- The beginning of the Civil War.

In the summer of 1883, Colonel Christopher “Kit” Carson was ordered to totally subjugate or exterminate the Navajo. Employing a “scorched earth” policy, he and his troops moved through Navajo communities destroying crops, livestock, and homes. He then returned to Ft. Canby (Ft. Defiance) to wait for the impending winter. As people began to surrender, due to the suffering, famine and cold weather, they were impounded at Ft. Canby and the Old Fort Wingate and then forced to walk to the Bosque Redondo at Ft. Sumner near the eastern border of New Mexico.

There were four routes to Ft. Sumner including one extra long route that went north to Santa Fe. It took around 4 to 6 weeks to make the journey

⁴⁴ Fleeing from Danger Time or Being Chased Time.



Ben Wittick , Courtesy Museum of New Mexico, Negative #15936: Navajo Scout from the 1880's

on foot. Many people did not survive the “scorched earth” campaign and many more were lost during the long walk. At least 11,000⁴⁵ men, women

⁴⁵ Population estimates from the Bosque Redondo State Monument. Counts were not kept of the numbers of people who left from Fort Defiance or Fort Wingate. Census

and children were forced on the long walk. Only 9,000 Diné returned home.

Not all Diné were captured. Especially in the northern canyon lands and in areas with inaccessible canyons and mountains, some people were able to evade Kit Carson's troops and hide. Life for the people in hiding was difficult and dangerous. Still, they managed to stay and maintain a connection to the land. Many families have stories about these times and about finding weaving tools and other goods stuck away in the cracks of rocks for safekeeping.

Bosque Redondo was a horrifying experience for the Diné. People suffered from starvation, disease, executions and fights between their own people and the outlying Ute and Comanche. Attempts to grow crops during the first three years resulted in failed harvests and by the fourth year the people refused to continue farming. The federal government was forced to provide for troops and food provisions at a cost of around \$1.5 million dollars a year. This along with the protests of some conscientious Whites resulted in an investigation of the conditions at Bosque Redondo and the decision that the Bosque Redondo "experiment" had been a very bad idea. Brigadier General George Carlton was removed as the commander of the Department of New Mexico in the fall of 1866 and control over the Navajos was transferred from the Army to the Indian Service of the Department of Interior.

A new treaty was signed on June 1, 1868 the people were allowed to return home.

A small group of the remaining Diné leaders at Bosque Redondo were able to persuade the Indian Service that it was best to let the people return to their homeland. A new treaty was negotiated and signed on June 1, 1868. The signers included: Bidághaa'í, Gish Díílidíni, Delgado, Manuelito, Bigod Bijaa', Herrero, Ch'ah Lá' ní, Dichin Biil'héhé, Hombre, Narbono, Hastiin Totsohnii, and Narbono Segundo⁴⁶. The treaty signers formed the core of what became known as the Chief's Council and the beginning of a representative form of governance.

The people were finally allowed to return to Diné Bikéyah. Three weeks after the signing of the treaty seven thousand or so began the long walk back – it took about a month to reach Ft. Wingate.

The Chief's Council demanded the removal of Indian Service Agent William Arney, and established more power for the Diné.

The Chief's Council challenged the authority of the Indian Agent, William F. M. Arney. Arney had attempted to conduct a census of the tribe in opposition to the Chief's Council and had tried to get the Council to give up the San Juan portion of the reservation. The Naat'anii filed a petition requesting Arney's removal. Arney resigned shortly afterwards

counts were taken after the second year of captivity at Fort Sumner, but the accuracy of these counts is not known.

⁴⁶ Also known as: Barboncito, Armijo, Delgado, Manuelito, Largo, Herrero, Chiquito, Muerto de Hombre, Narbono, Ganado Mucho and Narbono Segundo.

and he and other White government employees were asked to leave the reservation.

Even as the power of the Chief's Council began to grow, this system of centralized management began to break down. By the late 1880's many of the Naat'anii had become elderly and their influence had waned.

*Navajo Nation Council
created in 1938.*

The first Navajo Tribal Council was established in 1923 and Window Rock was selected as the capital in the early 1930's. The first general election of tribal officials was in 1938. From that time until 1989, the Navajo Nation government consisted of the Tribal Council headed by the



Unknown Photographer, Courtesy of Museum of New Mexico, Negative #18349: Navajo Group

Chairman of the Council. The Title 2 Amendment was passed in 1989. This amendment created the existing three branches of government – executive, judicial and the legislative.

Navajo/Hopi Land Partition

In sadness, I must report that the generous and humane relocation program which Congress envisioned in 1974 has been, in reality, an obstacle to the economic development and social and cultural advancement of both tribes. – Roman Bitsuie, Executive Director, Navajo-Hopi Land Commission

The Treaty of 1868 created a 3.5 million-acre reservation which only covered a portion of the Diné aboriginal lands and so at the end of the Long Walk, many Diné simply moved back to their original homes outside

*I am well known among
the hills, among the
ditches, rivers, streams,
plants. I have touched
them in various ways
and they have touched
me the same. There is
no place but here. —
Asdzaa Yazhi Bedoni,
Navajo*

*(From, The Wind Won't
Know Me: History of the
Navajo-Hopi Land
Dispute, Emily Bender,
Vintage Books, New York;
1992, 1993. Pp. 1)*

of the designated boundaries. This lack of recognition by the Federal Government of the need for Diné people to live in the place of their birth was the seed of the ongoing distress over land in the Black Mesa area.

Although the first Moqui (Hopi) Indian Agent was appointed in 1869 and moved to the Keams Canyon area in 1874, a Hopi Reservation was not established until 1882. *The reservation land was ... withdrawn from settlement and sale, and set apart for the use and occupancy of the Moqui and other such Indians as the Secretary of Interior may see fit to settle thereon.*⁴⁷

Although the 1882 Executive Order created a reservation for that allowed both Hopi and Diné to live in their original home-places, over the intervening 113 years a dispute has grown over the “ownership” of 1.8 million acres and the rights of families to continue living in their customary and traditional areas.

The growth of the dispute may also be partly due to major differences between the two cultures:

The Hopis are a people of law. The Navajos are a people of opportunity. The Hopis are rule bound, religious, and self-righteous. The Navajos are adventurers and improvisers; throughout their history, they have enthusiastically embraced new ideas and skills and turned them into something uniquely their own. Navajo life is far freer and allows far more individual expression than does life at Hopi.

The Hopis, although they consider themselves superior to the Navajos, are also jealous of them, jealous of their freedom. They are infuriated to see the Navajos profit from their own initiative....

...Who came first, who has primacy, holds more importance for the Hopis than who has elevated a skill or a ceremony to the greatest heights. The Hopis condescendingly attribute the Navajos' success to qualities like aggression....

But the Hopis also resent their own tribesmen who lift themselves up from the common lot.... Anyone who dares to be different at Hopi feels the full brunt of societal disapproval, and the scorn is directed with all the energy of the self-righteous. Abbott acknowledges this. “Hopi means different things,” he says, “It means peaceful, good person, well-behaved person, yes, but its religious meaning is righteous. We have a ‘we’re better than you’ attitude, and we call ourselves Hopi even though we do bad things to each other. We bicker, we’re jealous, we can’t get together to put up a common front against the outside.”...

⁴⁷ *Diné Bi-Iná Nahil Ná (Revive the Diné Way), Diné Evictees of District Six, Jádító, Arizona, Eugene L. Hasgood; 1993. Pp 4.*

But the Hopis often couldn't make it clear exactly what they thought. Because each of the fourteen Hopi villages considers itself an autonomous unit and because clans within the villages compete for authority on certain matters, it is often difficult to come to a consensus.⁴⁸

The Commission on Indian Affairs and their local Indian Agent established the 1882 reservation to confirm authority over governance of the land and its people. The boundaries were determined more by surveying convenience⁴⁹ and perhaps by empire building by the local agent than by any adherence to indigenous land use by the Hopis.

In 1882, the reservation included somewhere between 300 and 600 Navajos and 1800 Hopis. While the tribe has sites with religious significance scattered over a wide area of the southwest ranging from the San Francisco Peaks area to the San Juan River, the Hopis tended to live clustered in villages and farmed and grazed livestock nearby. The Diné farmed and grazed their animals between winter and summer camps.

The period between the return from the long walk and the 1930's was a productive one for the Diné as they struggled to regain what they had lost during the long walk. As the Diné on Black Mesa prospered, their families grew in size and minor land disputes with the Hopis arose. Some of these disputes occurred because the Federal Government was also trying to encourage Hopis to change their culture and expand into livestock ranching.

In 1891, the Parker-Keam line was established to set aside a specific portion of the reservation for the exclusive use by the Hopi. This line was constructed using an (approximately) 16-mile radius centered in Mishongnovi village and included most of the land that the Hopis actually used.

By 1909, the US Government had discovered coal deposits in Black Mesa.

By 1909, the U.S. Geological Survey had completed its first survey of Black Mesa and reported that there was a 3-foot thick layer of coal in the upper geologic structures of the mesa. Calls for a policy to segregate Hopi and Navajo began.

Grazing District 6 was created in 1934 and many Diné were forced to move from their traditional homes.

In 1934, several laws were passed that would have major impacts on the Diné. Congress passed a bill extending the Navajo Reservation in Arizona and also the Indian Reorganization Act. The Reorganization Act created tribal governments and set up grazing districts to help with soil

⁴⁸ Ibid. Pp. 43 – 44.

⁴⁹ "Reaching for quick and easy boundaries, Flemming had drawn a neat rectangle that fell precisely within 1 degree of latitude and 1 degree of longitude." *The Wind Won't Know Me: A History of the Navajo-Hopi Land Dispute*, Emily Benedek, Vintage Books, New York; 1992, 1993. Pp. 36.

conservation. In the 1882 Reservation area, Grazing District 6 was created for Hopi grazing rights and effectively partitioned the land between Navajo and Hopi land use rights. The federal government also began its livestock reduction that year with great loss to the Diné.

Ten years later, the boundaries for District 6 were expanded and around 100 Diné families were forced to leave their homes and relocate. Many moved to new sites just outside of District 6. Within the lifetime of some of these people, they were forced to move again with the passage of Public Law 93-531 which partitioned the 1882 reservation into two halves.

Prior to this, a law had been passed which allowed the two tribes to sue each other in federal court. The case known as, *Healing v. Jones*, was finally settled by the Supreme Court on 1963. The decision affirmed that an area of 1.8 million acres (not including District 6) was to be administered as a joint use area. One of the results of the settlement of this case was another livestock reduction for Diné living in the joint use area.

In 1974, the Joint Use Area was divided into Hopi and Navajo land areas. This time over 10,000 Diné were expected to move from their homes – some for the second time.

The Hopi Tribal Council and their attorneys were not happy with this decision and lobbied then senior senator, Barry Goldwater of Arizona, to support a law giving one half of the 1882 reservation to the Hopis. This bill was passed in 1974, as Public Law 93-531. It partitioned the area into two sections and established a relocation commission. The Hopi Tribe received an area which included most of the Black Mesa coal areas and revenues from the ongoing Peabody mine were divided in two. At the time there were approximately 10,000 Diné and 100 Hopi who would be required to relocate to new homes. The newly set up Relocation Commission assumed that there were 800 families that needed to be relocated at a cost of \$41 million.

“The relocatees’ naiveté and lack of preparation for a life off of the reservation made failure a foregone conclusion.” – The Wind Won’t Know Me, Emily Benedek.

Although the partition law was set up to address the needs of relocatees the law was based on several serious misconceptions. The first misconception was that there was a lot of “empty land” within the existing Navajo reservation and that the Navajo Tribe would be able to accommodate all of the relocated families. The federal government and its Commissioners did not understand that most of the land within the reservation is minimally productive and that a large ratio of land area to people is needed to provide for subsistence living. The Relocation Commission also did not seem to understand that there were few employment opportunities within the area; and that most of the relocatees lived a traditional Diné lifestyle and were not (in any way) prepared to leave that lifestyle and live in urban areas or take the types of jobs available in these areas. The other major misunderstanding was the strength and importance of the cultural and religious ties that these traditional Diné have to the place where they were born and where their preceding clan and family members lived and are buried. Relocation for

these people represented a spiritual and psychological crisis that was never addressed by the Commission.

People were forced to move without having a new home to move into. Some families ended up in toxic waste dumps and other unhealthy places.

The Relocation Commission was headed by political appointees who tried to maintain control over the administration and never hired competent staff. Beset by problems and mismanagement, the Commission forced relocation of most of the families without having places or homes for them to move into. Ten years later, many relocatees were found living as squatters in toxic waste dumps and other unsuitable places. Those families who were moved into homes found themselves in border towns and soon lost those homes as they were unable to make a living and fell prey to unscrupulous loan officers and real estate agents. Some families moved into new but substandard homes, which fell apart within a couple of years. The Commission considered that once a family was moved, they were taken care of and refused to help with any of these problems.

The Commission was to expire on July 6, 1986. As the deadline neared, over 1700 families or approximately 7650 people had not been relocated into new homes and were living with relatives or in more dire situations. The cost of the program had risen to \$337 million or an 824% increase in the original estimate.

In 1983, then Navajo Nation President, Peterson Zah, and Hopi Tribal Chairman, Ivan Sidney, tried to work out a solution that would eliminate the need to relocate more people. This effort failed due to actions taken by the Hopi Tribal Council to thwart any resolution other than full relocation. To avert more of a crisis, the federal government passed an appropriations bill in 1986 to prohibit the use of federal funds to evict Navajo people from their homes. 300 Diné families remained on Hopi Partition Land and vowed to fight relocation and many are still doing so.

Navajo-Hopi Land Dispute Settlement Act of 1996 provided for 75 year renewable leases with the Hopi Tribe for people who wished to remain in their homes. This has not been a full and successful solution to the issues.

In the past ten years there have been several more attempts to settle the dispute. This includes the 1993 Public Law 93-531, a settlement agreement between the United States and the Hopi Tribe, and the Navajo-Hopi Land Dispute Settlement Act of 1996.

A copy of the Navajo-Hopi Land Dispute Settlement Act is included in the Addenda section of this report. It provides: the Hopi Tribe with the authority to enter into 75 year, renewable leases with Navajos families who wish to remain in the HPL⁵⁰; provisions to acquire and place 500,000 acres of land into trust for the Hopi Tribe; continuance of funds for relocation; quiet deed activities related to HPL lands and water rights on HPL lands.

Meanwhile, the dispute continues with: unsettled cases still in court, continuing skirmishes between relocation resisters and the Hopi Tribe,

⁵⁰ Hopi Partition Lands

efforts by both sides to bring the issue to worldwide attention, and efforts by the Peabody mining interests and the Hopi Tribe to open up new coal mining operations in the Black Mountain area. Given the level of animosity that has built up over the past century and the mineral and water resources involved, it unlikely that this issue will be resolved in the relatively near future.

For the residents to Piñon, the first wave of impacts of the dispute are over as described below. Time will tell if the second wave of impacts relating to the environmental consequences of the Peabody Coal Mine's use of N-Aquifer water and open strip mining operations will severely impact water quality, water availability, air quality and land productivity of the Chapter area.

Part of the Piñon Chapter was lost to the HPL and the population increased as relocatees moved into the Chapter.

In Piñon, the southern most portion of the Chapter area was reallocated to the Hopi Partition Land and fenced off. Most of the Navajo families in this area have resettled within the Navajo Reservation.

Although the resettlement plan provided for new housing and other benefits, the Chapter continues to experience adjustments related to customary land use boundaries, grazing permits, grazing areas and other land and livestock allocation issues.

The long fight over the partition lands, the evictions and relocations and the livestock reductions have taken a toll on the economic health of the Chapter. Changes to grazing and customary use areas have decreased the capacity of the land to support livestock and for families to make a living. Relocatee families have lost wealth and in some cases have not been able to recover financially. The long-term effects of the evictions are being acted out as increased social problems as the community tries to adjust to these changes. The area may be near the end of the transition period as the Chinle Service Unit reports, "Interviews with community members reveal that the impact felt by this is now diminishing."⁵¹

Piñon Trading Post

A note on the Pinon Trading Post: The trading post was established sometime during the early 1900's possibly by Lorenzo Hubbell, Jr. and his cousin George Hubbell. The Hubbells ran the trading post until the 1930's when it was taken over by the Fonz Brothers and later by McGee. The trading post is still in operation.

Some Points in Piñon's History

Laurance Linford in his book, *Navajo Places*, writes about the early written history of the Chapter:

... Captain John Walker and two companies of Mounted Rifles were the first Americans known to have traversed this wild region,

⁵¹ *Chinle Service Unit Community Assessment 2000 Report*, Chinle Agency, Chinle, AZ; 2000. pp 101.

A portion of a report on the history of Black Mesa, written by H. Barry Holt, Ph.D. for the Navajo Nation Cultural Resource Management Program is included in the Addenda section of the Comprehensive Plan..

**New Beginning
for Diné Bikéyah**

The time of a more independent government for the Chapter is beginning. Success will come through wisdom and t'áá dinéji.

traveling northwest from near Salina to Marsh Pass in 1859. Walker described the region as a series of broken hills, mesas, and canyons. Except for the eastern periphery, the area was then uninhabited...

A aged Navajo, Béésh Łigaii' Atsidí (who died in 1939), told the story of a Mexican trading expedition bringing a carreta (a two wheeled wooden cart) into the Piñon country over the Canyon de Chelly rim trail, across Black Mountain (now Black Mesa) and then down as far as Gray Mountain on the Little Colorado River. According to Van Valkenburgh, the Navajo name refers to a carreta falling into a deep arroyo on the return trip over Black Mesa. Informants from Chinle state that Black Mesa was the habitual winter range of the Chinle Valley people many years ago.

In October 1939, Ramon Hubbell and Evon Vogt found old Spanish inscriptions in this vicinity, near a spring the Navajos called Naakaiitó (Mexican Water). The Navajos thought that the inscriptions had been left there by a party of Spanish or Mexicans who had killed some Navajos near Ganado and then proceeded northwest. A part of the cliff had fallen off, covering the inscriptions, and the explorers lacked the tools for the removal of the rocks.⁵²

Over the past one hundred and thirty-three years, the federal government's recognition of Diné Bináhasdzo⁵³ has grown through additional treaties to its present size of 16,000,000 acres and satellite reservations – Cañoncito, Ramah, Alamo and the New Lands. The Diné have gone through periods of rebuilding their flocks and their livelihoods and periods of deprivation, from drought and livestock reduction. In Pinon there have been periods of relative prosperity brought about from the discovery and mining of coal and then uranium – and also, the aftermath of sickness and environmental damage. The Diné have seen technological changes that have changed transportation from horseback to 4x4's, communication via cell phone and satellite internet linkages, and a greater freedom in education. Governance too has changed and the Navajo Nation continues to move towards greater sovereignty over Diné internal affairs and Chapters towards more autonomy from Window Rock.

Diné Bikéyah and along with it, Piñon, is at the beginning of a new time. A time of greater independence to determine its own future and a time to reach far beyond its borders to a wider world of opportunities. It is the strength and intelligence of the Diné that will take them through this new and unknown path with success and the ability to hold onto the land, the traditions and the very center of being Diné.

⁵² *Navajo Places History, Legend, Landscape*, Laurance D. Linford, University of Utah Press, Salt Lake City, Utah; 2000. pp. 119-120.

⁵³ Navajo Reservation

CULTURAL RESOURCES/HISTORIC PRESERVATION

Class I Archeological Records Check

The Chapter residents feel strongly about preserving places related to Diné culture. The following suggestions were made:

- Identify sacred and traditional sites to be protected from being disturbed.
- Identify prayer sites to be protected from being disturbed.

The Consultant has worked with the Navajo Nation Historic Preservation Department to map known preservation sites, a generalized version of this mapping is shown on the land protection map.

HUMAN RESOURCES

Data Analysis

The Piñon population assessment uses U.S. Census Bureau 2000 data supplemented by the 1990 Census data and data provided by the Navajo Nation in two separate documents: Chapter *Images: 1996*, and the *2000 Chinle Service Unit Community Assessment*. Census 2000 data was obtained from the U.S. Census Bureau/American FactFinder web site.

The study also includes data published by the Navajo Division of Economic Development in the *2000 – 2001 Comprehensive Economic Development Strategy*.

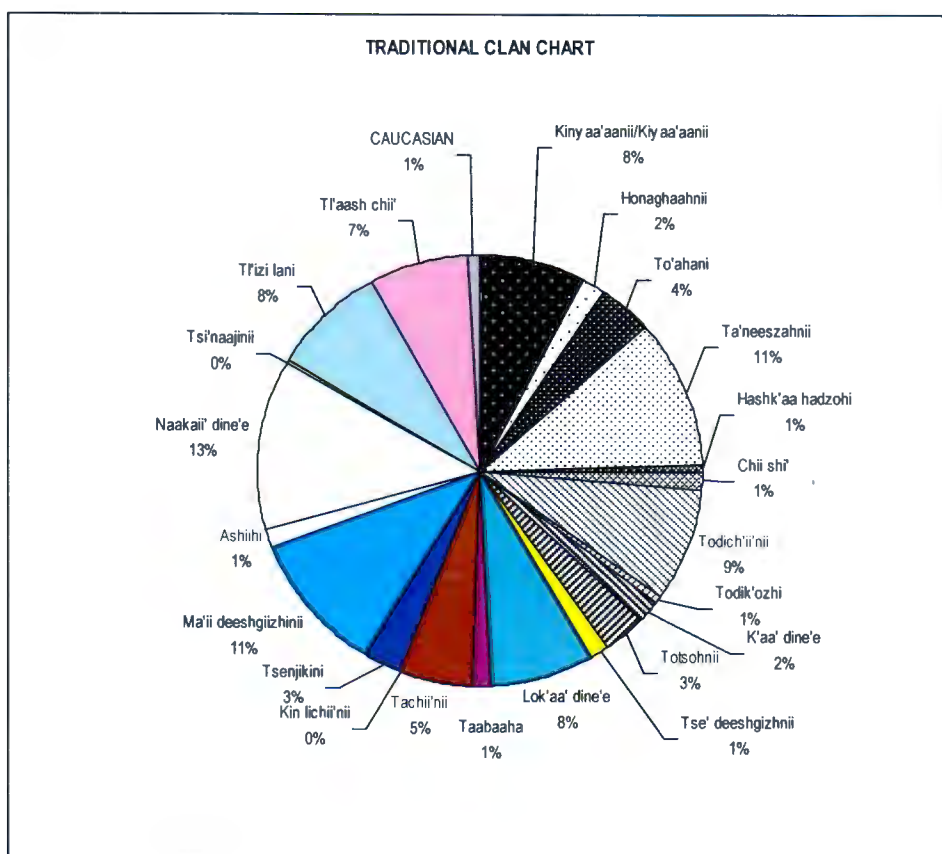
Community Survey of Clans

A community survey of residents and their clan relations was conducted as part of the land use planning study. The survey requested information related to location of residence, mother's clan, father's clan, grandmother's clan and grandfather's clan. The information collected has been used to create:

1. The initial steps in creating a community genealogical resource. A data sheet has been created for each respondent showing the genealogical clan relations. These documents are available at the Chapter House and will eventually be placed in a community library. Chapter residents are welcome to use these documents and to add information to them.
2. The mapping of mother and father clan relationships is still being compiled. This map will help identify traditional clan areas.
3. A chart showing the compilation of Clans by percentage shows the overall Clan composition of the Piñon community.

The CLUPC determined that it is important to land use planning to understand the Clan roots of the community and the relationship of the Clans to the land. They also felt that the creation of a community genealogical source is an important step in helping the community preserve and remember Diné traditions.

The Traditional Clan Chart for Piñon resident's clans is shown below.



Population Trends

In 2000 the Chapter Population was 3,066 residents and 741 households

The 2002 population is estimated at 3,140 people.

In 2000, the total population in the Piñon Chapter area was 3,066 persons in 741 households. Most of the residents, 2,943 people or 95.8% indicated that they were American Indian⁵⁴. The population is about equally split between males and females with 50.1% being males and 49.9% being female.

The 1990 Census reported a population of 2,049 persons and the Chinle Agency estimated the 1998 population at 4,408 persons based on statistics kept by the Indian Health Service (IHS). The *Chinle Service Unit Community Assessment 2000 report* states:

There are 4082 living patients registered at Chinle Hospital [for the Chapter area]. 2,474 received health care services during this time period. 195 are currently enrolled in Medicare Part A; 221 in Medicare part B; 1167 in Medicaid; and 860 have private insurance.

There were 92 births and 12 deaths during this period.

⁵⁴ The U.S. Census category is noted as American Indian and Alaska Native, the term has been shortened to American Indian in the text.

AGE/SEX DISTRIBUTION as of October 1, 1998 – September 30, 1999

Age B	0-4	5-9	10-19	20-29	30-39	40-49	50-59	60-69	70-79	80+	TOTAL
Male	239	183	563	402	345	200	105	87	53	50	2,227
Female	248	167	474	381	340	227	129	102	65	49	2,181
Total	487	350	1037	783	685	427	233	189	118	99	4,408

The difference between the 2000 Census count and the HIS could have several explanations. Some individuals may be registered with the Chapter and may receive medical services but may live permanently or most of the year in another location. There could also be some level of undercount in the 2000 Census. There is about a 30% difference between the two counts.

There was a 35% growth in population over the past 10 years.

Using the reported Census data, there was a 35% growth in population or 1077 additional residents. A good part of this growth may be due to an influx of new residents relocating from the lands allocated to the Hopi Tribe in the Navajo/Hopi Land Partition, especially after the Hopi-Navajo Land Dispute Settlement Act of 1996. Other growth factors may include expansion of the Piñon Unified School District with an increase in the number of teachers and the construction of new NHA housing units.

This report will use the Navajo Nation Community Development Department's current growth factor of 1.2% in calculating future population projections⁵⁵. This would result in a current (2002) estimated population of around 3,140 residents.

Regional trends reported in the Census 2000 data indicate that population in the western part of the United States is growing at a faster rate than the rest of the country. The growth rate in Arizona is calculated at 40.0% and Navajo County's population increased by 25.5%. Most of the state's growth has occurred in the greater Phoenix metropolitan area. In Navajo County the primary growth areas have been Winslow and Holbrook.

Demographic Characteristics

47.7% of the Chapter population is under the age of 20 years.

As shown in the chart below, in 2000 the adult population was slightly larger than the child and youth population, with 1462 people under 20 years and 1604 people over the age of 20. The largest segment of the Chapter population are children under the age of 20 years. The next

⁵⁵ The statistical value of this type of projection for populations under 100,000 is not particularly accurate. Overall we might be able to conclude that the Chapter's population is fairly stable. We can assume that the small amount of growth is due to natural factors such as: new births and an increase in the longevity of the population. These growth factors are off-set by out migration of individuals in the 18 – 59 year age group who leave the Chapter seeking job opportunities in border communities and elsewhere.

largest group is adults between the ages of 21 and 44. There are slightly more adult men than women with the exception of the over 65 year age group where women outnumber men by 107 to 81.

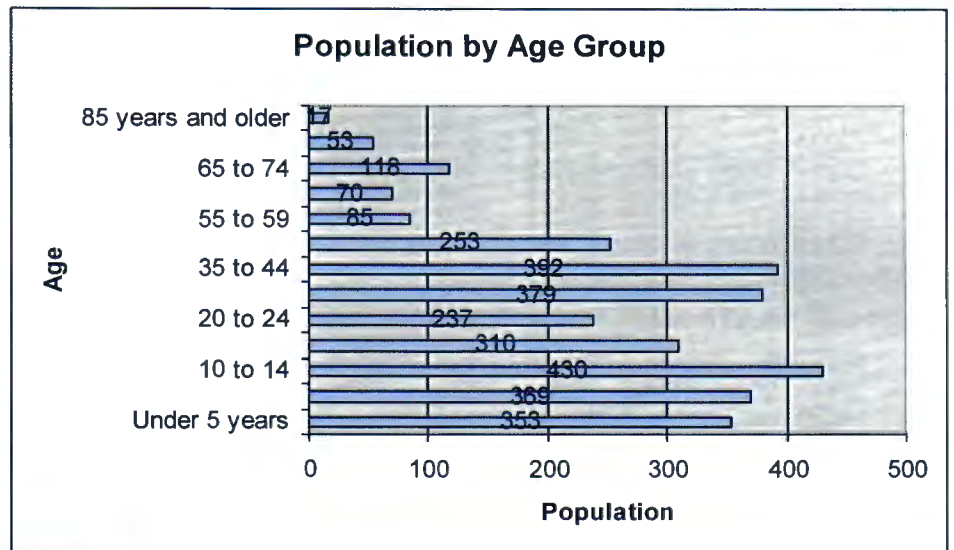
Median age is 21.3 years.

Median age in the Chapter area is 21.3 years. This means that half of the population is over the age of 21.3 and half of the population is under the age of 21.3.

There are 741 households in the Chapter. The average household size is 4.41 people

Most people live in family households.

52.6% of the households have children under the age of 18 years.



There are 612 families in the Chapter. This is 82.6% of all the households.

The average family size is 4.74 people.

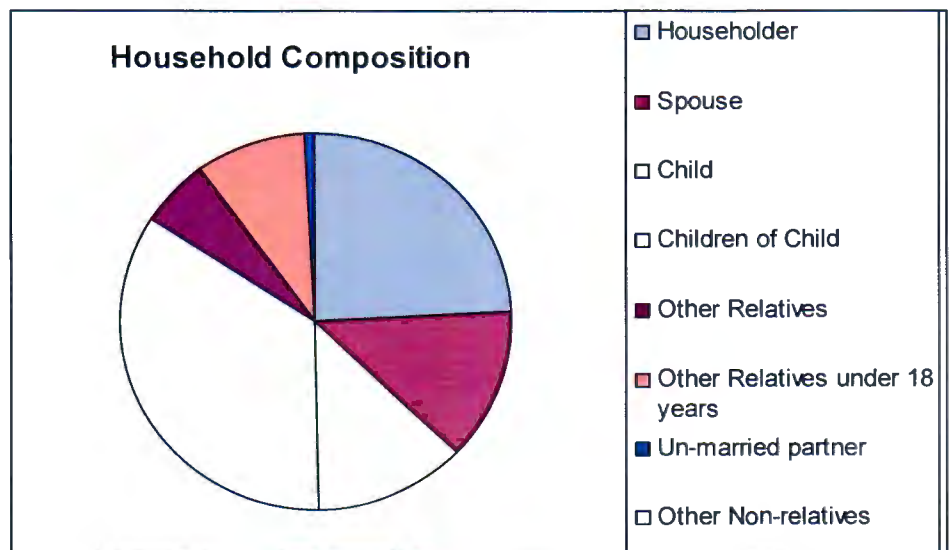
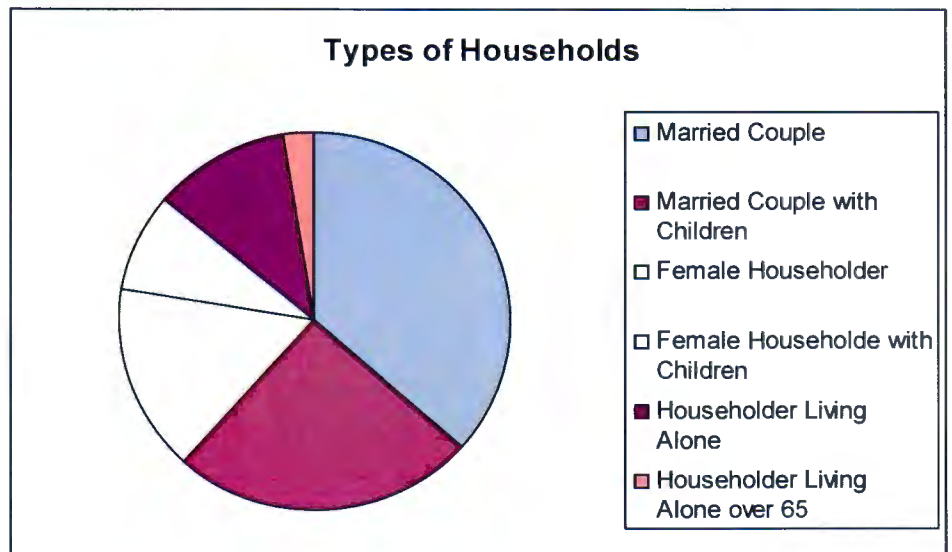
3.8% of households have individuals who are 65 years or older.

As mentioned above, there are 741 households in the Chapter. The average household size is 4.41 people. Most of the population resides in 612 family households; only about 125 people live alone. Family households are generally larger with an average of 4.74 people. There are 390 households with children under the age of 18 years; this is about 52.6% of the total households. Most households with children are married couple families, however about 12.6% of all of the households are single parents with children.

The remainder of the households are either households with no children under the age of 18; are households with extended family members or non-related people living together; or are single individuals. 3.8% of the households have individuals who are 65 years or older.

The household composition charts below also show that family households tend to consist of extended families including stepchildren, grandchildren, brothers and sisters, parents and other relatives. There are 612 families in the Chapter area with an average family size of 4.75 people.

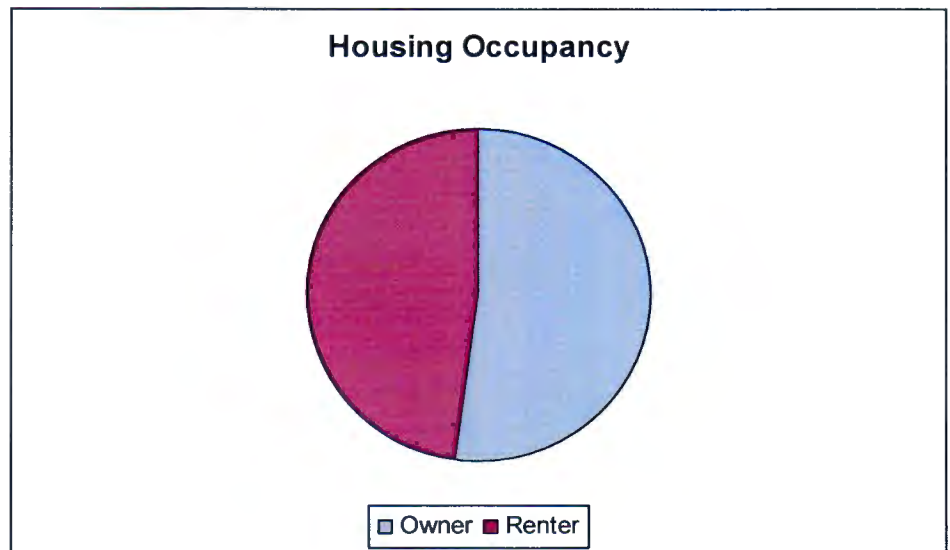
Of the total number of households, 10 are unmarried-partner households. This is a little under 4% of the households.



Housing

The 2000 Census reports that there are a total of 1,097 housing units in the Chapter area:

- 741 of these are occupied,
- 356 are vacant and of these 232 are used for seasonal or occasional purposes,
- 387 units are owner occupied and
- 354 units are rentals.
- An average of 4.26 people occupied each owner occupied unit, and
- An average of 4.00 people occupied each rental unit.



NHA Housing in Piñon

The Navajo Housing Authority has a total of 119 units in the Piñon Chapter area. The units are rentals and consist of 6 two bedroom units, 5 three bedroom units, 26 four bedroom units and 12 five bedroom units. The occupancy rate is around 98%.

Housing Trends

The data used for this section are from the American FactFinder website for the Piñon CDP. CDP stands for “census designated place,” and it is an area where there is a concentration of population like a town but where the area is not incorporated as a town or city. These numbers do not represent the whole chapter area but rather that part of the chapter around the Chapter House, the trading post, the schools and the highway.

To give these numbers some perspective, the Census 2000 Chapter population is 3,066 people while the CDP population is 1,190 people. There are 741 households in the chapter and 1,097 housing units. In the CDP there are 296 households and 372 housing units. There are more people living in a household in the CDP with household size of owner occupied units at 4.44 people and 3.78 people for rental units. The average family size is 4.69 people. Roughly, about 2 out of every 5 Chapter residents live in the CDP.

The Chart below shows some differences between the CDP population and the overall Chapter population:

- The median age is lower in the CDP. In the CDP there are more people in between the ages 20 – 34 and less people over the age of 60 years.
- A greater percentage of the White population in the Chapter area lives in the CDP.

- Household and family sizes are smaller in the CDP.
- A little more than 1/3 of the housing units are in the CDP and a greater percentage of these are occupied.
- Homeownership is lower in the CDP and the rental rate is higher.

	Chapter	%	CDP	%
Population	3066	100%	1190	38.8%
Median Age	21.3		19.9	
American Indian	2937	95.8	1094	91.9
White	116	3.8	91	7.6
Other Race	13		4	
Average Household Size	4.14		4.02	
Average Family Size	4.74		4.69	
Housing Units	1097	100%	372	33.9%
Occupied Units	741	67.5%	296	79.6%
Vacant Units	356	32.5%	76	20.4%
Owner Occupied Units	387	52.2%	108	36.5%
Rental Units	354	47.8%	188	63.5%

Notes: Race % are for total population in Chapter or CDP, % occupied and vacant units of total number of units; % of owner occupied and rental units of total number of occupied units.

A partial explanation of the difference is that the CDP includes both the Navajo Housing Authority (NHA) housing projects and the Piñon School District teacher housing units. This would account for the higher percentage of rental units. One might also conclude that younger people and young families tend to be renters. In addition, a larger number of CDP residents are young to middle aged adults.

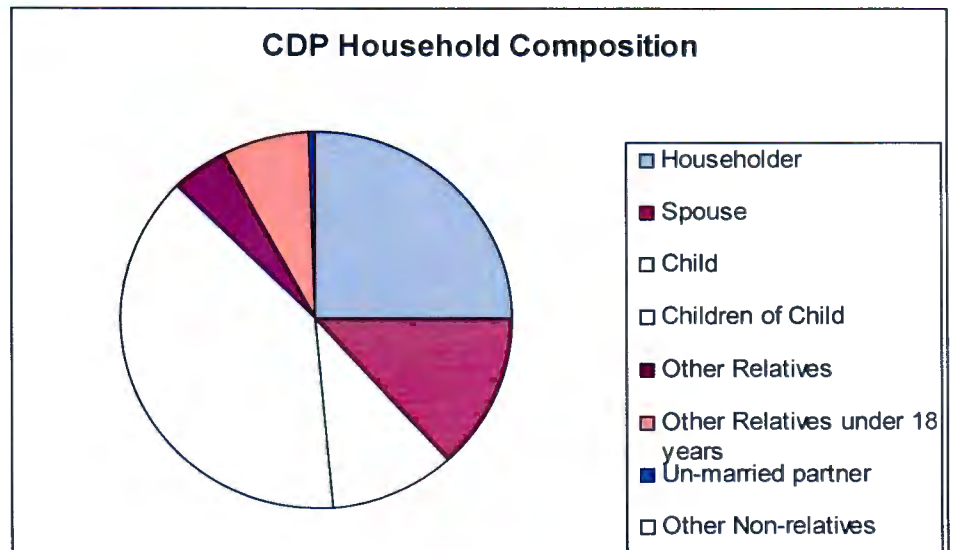
Of the total housing units in the CDP, 79.6% are occupied and 20.4% are vacant. Even though there seem to be a large number of vacant housing units, many of these units may not be available for habitation. At the time of the census:

- 21 units were for rent,
- 0 homes were for sale,
- 0 homes were rented or sold but not occupied,
- 25 units were for seasonal or occasional use,
- 0 unit was listed for migratory workers,
- 30 units were listed as other vacant. This could mean that they need re-building before they can be lived in or that they may not be acceptable homes according to the t'áá dinéji⁵⁶ or that no reason was given for the vacancy.
- The vacancy rate for homeowner units was 0. The vacancy rate for rental units was 10%.

Household composition in the CDP is similar to the Chapter overall; there are slightly more children and slightly less single parent households.

⁵⁶ Navajo Way

When the age of homeowners is compared it becomes clear that people in the 25-44 year age range make up more than half of the householders in the CDP. Age groups for owner occupancy shifts up with the majority of homeowners between the ages of 35 – 64 years. Household sizes are generally larger for owner occupied units with half of the units having 3 -5 person households. Single person households make up 1 out of every 5 rental households.



The vacancy rate for rental units is not overly high and indicates that there may be some level of need for additional rental units.

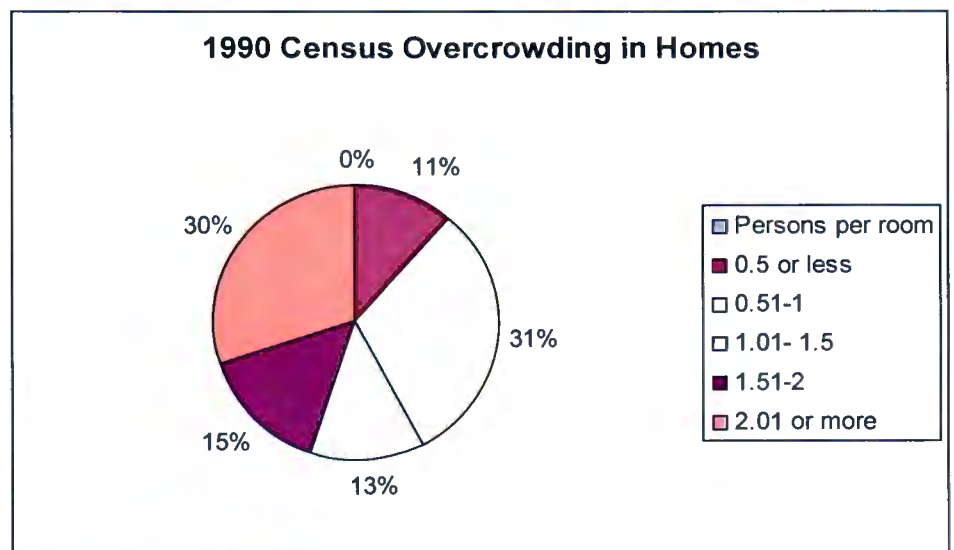
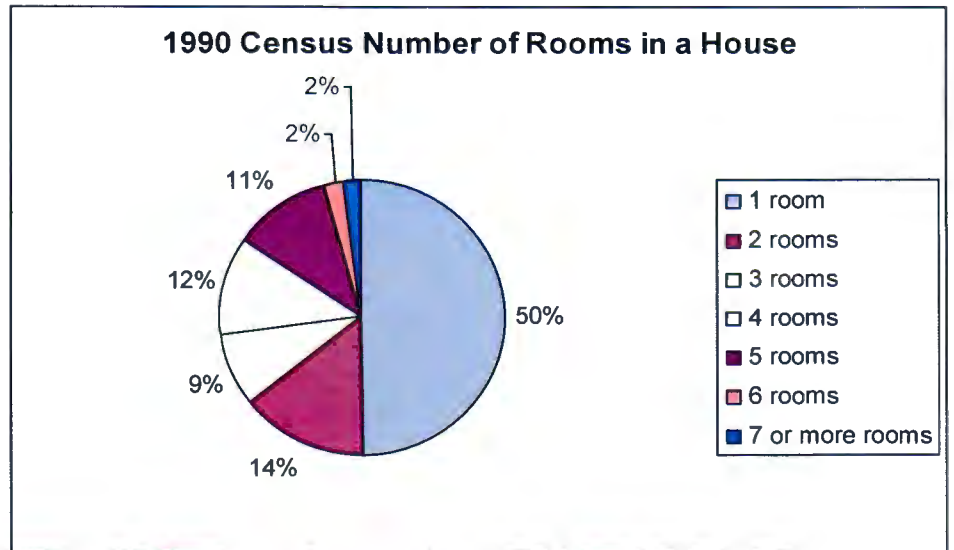
Housing Trends

In 1990 Census, the Chapter had 911 units; 503 of these units were occupied and 408 units were vacant. There has been a significant increase (20.4%) in the total number of housing units over the past decade. Occupied units have increased by 47.3% increase and vacant units have decreased. This indicates that the need for housing has been so great that almost 13% of the vacant units have been converted to full time occupancy. Just considering those units that may be considered available for habitation, there has been an increase of around 186 housing units. This would include housing built since 1990 such as:

- JUA (Joint Use Agreement) replacement housing and
- NHA housing units.

The charts below show the following information: In 1990, over 50% of the homes in the Chapter had a single room and another 14% of the homes had 2 room. That means that almost 2/3rds of the houses in the Chapter area had 2 rooms or less. The average number of people living in a housing unit was 4.14 people. This indicates that there may be over crowded conditions in 50 – 73% of the homes.

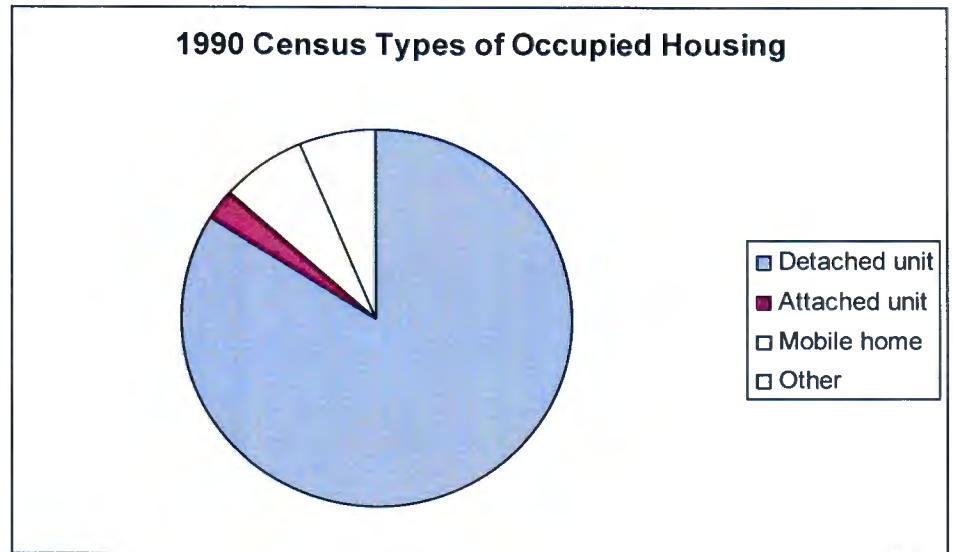
This type of housing data is not yet available for the 2000 Census, but we can assume that the 186 new housing units are probably larger. Still the average household size has increased from 4.14 to 4.41 persons per unit and so it can be concluded that there is still a high level of overcrowded housing conditions in the Chapter.



The chart of persons per room of occupied housing units supports this conclusion. Even if people choose to live in a home with their family members, this means that larger homes or additional homes in a family camp would make living conditions more comfortable.

In 1990 most occupied homes in the Chapter area were detached homes. Less than a quarter of the homes were either attached units, were mobile homes or were some other type of housing. Year 2000 statistics for the type of home is not yet available at the Chapter level, however, from

observation it can be noted that most of the new housing units are either detached units or mobile homes and that this trend will continue.



Social Characteristics

Census 2000 data related to social characteristics is not currently available at the Chapter level.

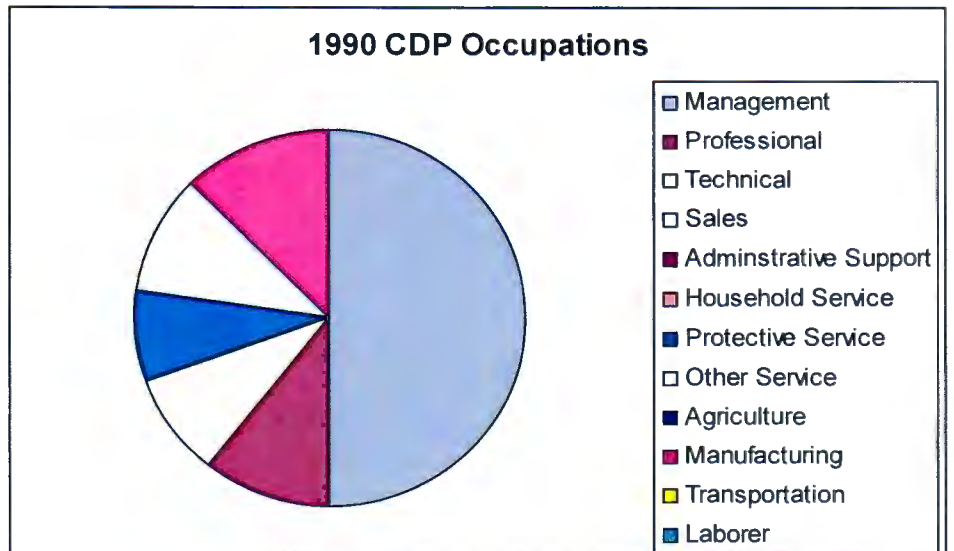
1990 CDP Base Data

The Navajo Nation Division of Community Development provided a 1990 census data analysis of social characteristics for designated places or CDP. Piñon was one of the designated places.

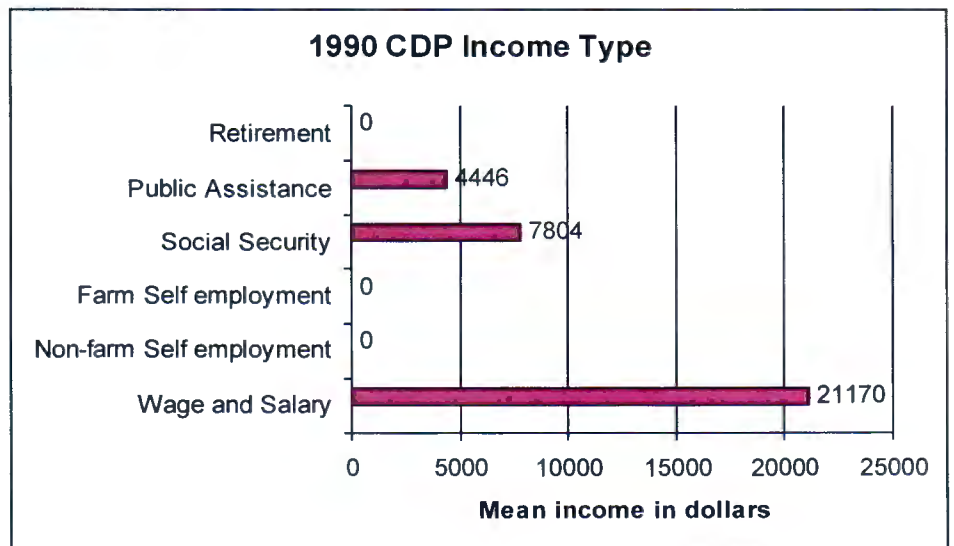
For comparison purposes the 1990 CDP basic statistics for Piñon are as follows:

- Population of 468 persons primarily American Indian.
- 181 total housing units with 122 occupied units and 3.84 persons per household.
- 97 Families with around 4.37 persons per family.
- 118 persons over the age of 3 enrolled in school: 4 in primary school, 98 in elementary or high school and 16 in college.
- Educational attainment for persons 25 years or older: 106 less than 9th grade, 13 high school but no diploma, 52 high school graduates, and 13 graduate or professional degree. 35.3% were a high school graduate or higher and 7.1% had a bachelor's degree or higher.
- 60% of the people had lived in the same area for at least 5 years.
- 25% of the population had some sort of disability.
- The birth rate ranged from 1.098 – 2.795%.
- There were 30 veterans between the ages of 16 and 65.
- 89% were born in Arizona.

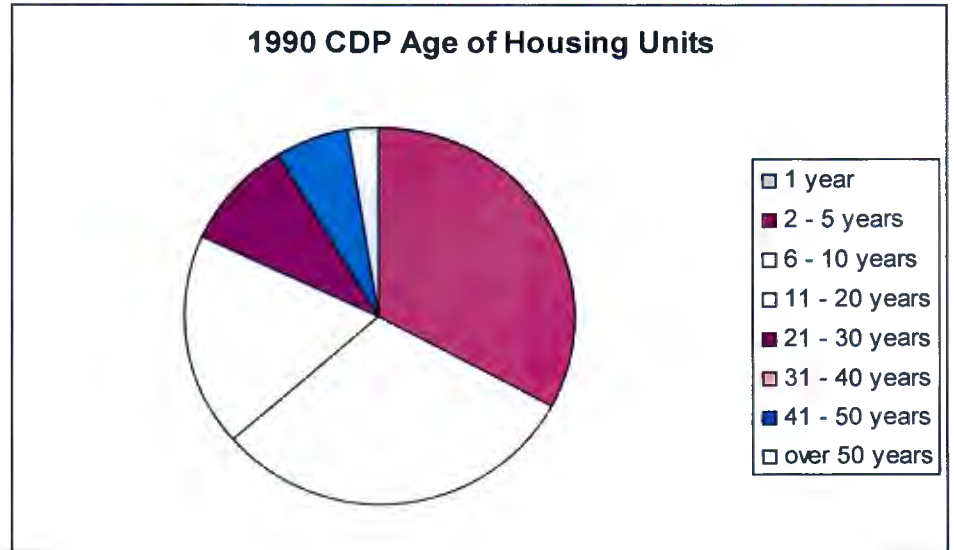
- 93% spoke a language other than English and 67.5% did not speak English very well.
- 112 persons were in the labor force or about 42.6% of the population.
- The unemployment rate was 35.7%. Of people in the labor force 10% of the males were unemployed and 100% of the females were unemployed.
- 77.2% of the employed persons commuted to work and drove an average of 40 minutes to work. The rest of the employed persons either walked to work or worked at home.



- The primary industries were: Educational services, professional and related services and public administration. All of the employers were government or government related.
- Per capita income was \$3,715.



- 70.3% of the population was below the poverty level. 100% of female householder families were below the poverty level and 58.1% of all families.



Education

The institution of higher education that is closest to Piñon Chapter is Diné College – Tsaile Campus in Tsaile/Wheatfields Chapter and its branch in Chinle. Many residents seeking college level courses attend this college. This campus has the highest graduation rate of all the eight campuses within the system; with the recorded numbers of graduates as follows:

	1995	1996	1997	1998	1999	2000
Tsaile Campus	71	58	38	28	37	30
College System Total	169	180	139	146	132	142

School Enrollment

The Piñon School District's data for the 1999-2000 school year shows a more positive picture than the the above trends.

There are five schools in the Piñon Chapter area:

- HeadStart
- The Community School
- The Piñon Unified School District with 3 schools: High School, Middle School and the Primary School.

The Piñon Unified School District also hires a Special Education Director who is responsible for evaluating and implementing programs and activities for Special Education needs.

School enrollment trends show:

Total enrollment by school in 1996 is as follows:

- Pinon Community School
 - Combined enrollment 130
- Pinon Unified School District
 - Combined enrollment 2,500+
- Pre-school 20

Economic Characteristics

Population Trends

Information regarding the economic status of the Pinon Chapter and the Navajo Nation is a combination of Census 2000 data and data compiled by the Navajo Nation Division of Economic Development in their 2000-2001 Comprehensive Economic Development Strategy report.

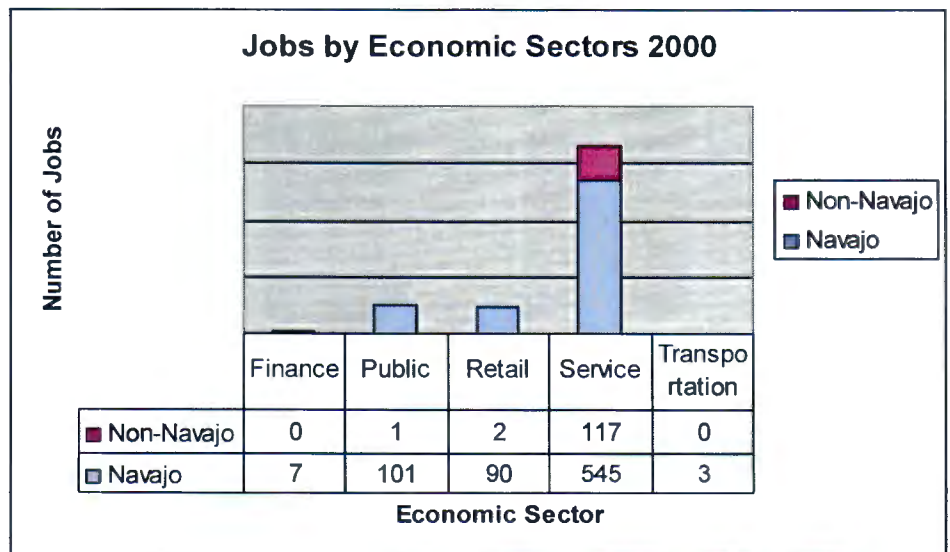
Employment

The Division of Economic Development (DED) makes the assumption that the labor force is equal to 30.5% of the total population. This is partially based on the fact that in 1990, 29.5% of Navajo people were in the labor force and the labor force has grown slightly since then. The DED is also using an overall population growth rate of 1.2%.

- Unemployment on Navajo Nation as of Dec. 31, 1999 was 43.65% which is slightly higher than in 1998. The rate has continued to be high relative to the United States rate of 27.9%. If one excludes non-Navajos from the rate it increases to 53.88%.
- The DED 1999 estimates for Piñon Chapter are shown in the table below.

	<i>Census 2000 based Labor Force</i>	<i>DED est. Labor Force</i>	<i>DED est. total employed</i>	<i>Salaries and Benefits</i>	<i>DED est. total unemploy- ed</i>	<i>DED unemploy- ment rate</i>
Piñon	935	715	499	\$9.65 M	216	30.23
Chinle Agency		8,205	5,363	\$170.92 M	2,842	34.64%

- In the Chinle Agency there are 127 employers in a 14 Chapter area and a total 1999 estimated population of 26,900.
- In Piñon there are a total of 14 employers employing a total of 866 people; of these 746 are Navajo. The total salaries and benefits is \$12,104,520 and the gross receipts is \$61,784,242. A breakdown of the economic sectors active in the Chapter is shown in the chart below:



- In Arizona the unemployment rate is 4.10 with a per capita income of \$25,189 per year; and in the Navajo Nation portion of the state the unemployment rate is 39.92.
- In the Navajo Nation, the unemployment rate is 43.65, and the per capita income is \$6,217 per year.

The DED strategy report makes a number of observations regarding the Navajo Nation unemployment rate and these apply to the situation in Pinon Chapter as well.

- The number of people employed was fairly constant during the 1990's. This indicates that the number of jobs has stayed pretty much the same while the size of the population and the labor force has continued to grow. This results in a continued growth of the unemployment rate. The report estimates that the number of new jobs within the Navajo Nation would need to grow by 3,544 each year just to keep up with the growth in the number of people in the labor force. However, job growth has been at a relatively small level of around 200 new jobs per year.
- The Navajo Nation has few jobs in the basic industries of manufacturing, agriculture, mining or tourism. Employment in these industries creates around 3 additional jobs related to service industries. Government jobs count for 23.08% of employment in the Navajo Nation and if you add in government related industries such as health and education the total number of government related jobs is about 13,533 which is 67.15% of the total employment on the Navajo Nation. In Arizona the government sector counts for 15.72% of the total jobs and in the United States 15.67%.

- The actual unemployment rate in the Navajo Nation is very high if the labor force is calculated at 65%, which is the percentage used for the United States. The DED uses 30.5%. When the higher labor force percentage is used then the Navajo Nation unemployment rate increases to 73.56%.
- There is a large “underground economy” in the Navajo Nation. This includes income and jobs such as people who make and sell arts and crafts, small food and other vendors found along roadsides and at flea markets.
- Social service and welfare programs such as TANIF provide a safety net and source of income for those who qualify. Programs include:
 - Food Stamps
 - Cash assistance for single parents
 - TPEP – cash assistance for two parents temporarily unemployed
 - Medical assistance --AHCCCS

Primary employers within the Chapter area are:

Employer	Number of Employees	Types of Jobs
Pinon Public School	500	Teachers, administrators, support services, site team, site council, maintenance, bus drivers, security and special education.
Community School	33	Administration, support staff, tutors, dormitory living. Counselors, and teachers.
Basha's	48	Retail
Laundromat	10	Retail
Pizza Edge	9	Retail Restaurant
Subway	10	Retail
Silver coin carwash	3	Retail
Conoco gas station, convenience store and Charlies Chicken	20	Retail
Navajo Nation	24	Chapter staff, community health worker, adult-in-home care worker, Head Start staff (see below)
Senior Citizens Center	3	Social services
Piñon WIC Program	2	Social services
General Assistance & Social Services	5	Social services
Dzilyijiin District Court	5 staff	Judicial services
Dine Association of Disabled Citizens	15	Non-profit organization
Navajo Housing Authority	14	Housing services

US Post Office	2	U.S. Postal service workers
Health Clinic	170	Health professionals, administrators, clerical, dietary, transportation and custodial.
BIA offices	6	NPL services
NDOT/ Navajo County	8/1	Local government services
Designs for learning	4	Non profit organization
Bee akid baa ahoozanii Inc.	16 seasonal	Non profit organization
Black Mesa Water Coalition	4	Non profit organization
Police and Judiciary Complex	Being Planned	Public safety officers, administrators, clerical, judicial, prison guards, dietary, transportation and custodial.

Additional employment opportunities include the State of Arizona's long term care provider program and child care development program. Both of these programs provide residents jobs providing care to relatives. Projects under construction which will add to the local job pool include: a new Judicial Complex and community college

It is estimated that around 72 jobs have been lost over the past year through the closure of businesses along Piñon Loop in the Kintah area. This is a significant loss for the community. At least two of the business lease sites are available for re-lease and it is uncertain when any of the business sites will re-open.

Outside of the Chapter area, Chapter residents must seek employment within the Chinle Agency, Window Rock or in the border towns.

Major employers within commuting distance of Piñon include:

- Tseyi' Shopping Center in Chinle, Arizona which is owned and operated by the Dineh Cooperatives, Incorporated.
- Navajo Nation Shopping Center in Window Rock, Arizona which is a semi-enterprise entity within the Navajo Nation Division of Economic Development.
- The Navajo Nation offices and field offices in the Chinle Agency and in Window Rock.
- The Navajo Tribal Utility Authority operations within the Chinle Agency and in Fort Defiance.
- Navajo Nation Hospitality Enterprise operations including the Navajo Nation Inn in Window Rock, the Navajo Travel Center in Navajo and the Haskeneini Restaurant in Monument Valley.
- Navajo Arts and Crafts Enterprise store in Chinle, Arizona.

Economic sectors within the Navajo Nation are shown in the chart below⁵⁷:

Sector	# of Employers	Navajo Employees	Non-Navajo Employees	Salary & Benefits	Gross Receipts
Agriculture	3	282	8	\$7.38 M	\$25.17 M
Construction	28	1,121	63	\$21.58 M	\$83.91 M
Finance	27	450	15	\$10.94 M	\$0.73 M
Government and Public	202	6,764	322	\$204.85 M	\$0.06 M
Manufacturing	7	305	29	\$8.88 M	\$25.97 M
Mining	13	1,468	232	\$92.22 M	\$540.23 M
Wholesale & Retail	199	2,679	234	\$35.20 M	\$223.22 M
Service	268	10,993	3,545	\$431.48 M	\$43.76 M
Transportation and Communication	75	1,736	462	\$125.87 M	\$215.74 M
Total	822	25,789	4,910	\$938.31 M	\$1,158.79 M

Per Capita Income and Poverty rate:

With a high unemployment rate, the poverty rate is also high. The DED report states:

Over the years, the unemployment rate on the Navajo Nation has gradually worsened – from 27.9% in 1990 to 43.65% in 1999...The unemployment rate on the Navajo Nation was almost 11 times more than in the US. On the other hand, the Per Capita Income of the US was 4.59 times higher than that of the Navajo Nation, Arizona's – 4.05 times, New Mexico's – 3.52 times, and Utah's – 3.75 times.

According to a study conducted by the Arizona Community Foundation entitled, "Demographic Profiles of Arizona's Ethnic Groups," the American Indians had a median family income of \$14,015 in 1990, whereas the Navajo had \$11,885...

The same Arizona Community Foundation's study also found that 46.2% of the American Indians were living below the poverty level in 1990...At 56.1%, Navajos had the worst poverty rate even among the American Indians. The State average was 11.4%.

Other economic issues facing the Navajo Nation and the Piñon Chapter include the leakage of Navajo dollars to the border towns. The Navajo Nation Support Services Department did a survey which indicated that 60% or more of Navajo dollars are spent off the reservation. In 1999, 68.04% of Navajo monies were spent in off-reservation communities. This is due to a lack of retail opportunities within the reservation. This

⁵⁷ Table No. 17: Number of Employers and Employees by Sectors of the Economy, 2000-2001 Comprehensive Economic Development Strategy, Division of Economic Development, The Navajo Nation.

lack of shopping increases the overall cost of goods to Chapter members as the cost of travel must be factored into the family budget.

LAND CARRYING CAPACITY

REGULATORY CAPACITY: IDENTIFICATION OF EXISTING LAND STATUS OF THE WHOLE CHAPTER AREA

The current service boundary of the Piñon Chapter is located entirely within the Navajo Partitioned Lands of the Navajo Reservation. Land use laws pertaining to the Navajo Tribal Trust lands are in effect.

Other jurisdictions governing land use and housing policies include: The BIA Land Management District 4 and Navajo Nation Land Administration.

The Pinon Chapter has several pending:

- Land withdrawal applications.
- Business leases or applications.
- Mission site leases or applications.
- Special Land Use Lease applications.

The Navajo Nation Land Department has a new Homesite Lease Regulations approved October 04, 2016. Public on the new regulations is forthcoming. According to Grazing regulations there is no customary use areas within the Chapter.

Dzil Yijiin Region is represented by one Navajo Nation Council Delegate.

LIVESTOCK CAPACITY: EXISTING GRAZING AND AGRICULTURAL INFORMATION

In 2017, the Chapter has no valid Grazing Permits. They have been cancelled as of 1973.

The grazing capacity of the land is highly dependent on climatic conditions. Under the current drought conditions grazing capacity has shrunk and many residents have significantly reduced their flocks and herds and are supplementing grazing with feed and hay.

Since livestock represents a secondary source of livelihood for most Chapter residents. This land use can be considered a primary factor in the land capacity or future growth capacity of the Chapter.

GROWTH CAPACITY: BASED ON NAVAJO NATION'S LONG RANGE WATER PLAN

The *Water Resource Development Strategy for the Navajo Nation*, developed for the Navajo Nation Department of Water Resources in July 2000 does not include Piñon in one of the proposed regional water supply projects. Because Pinon is located on Navajo Partitioned Lands and assistance is prohibited be given to help remote chapters develop the local water system.

Piñon lies primarily over the Navajo aquifer and other aquifers with poorer quality water. The Navajo aquifer has an estimated total storage capacity of 290 million acre-feet, this amount is based on ADWR 1889 data.⁵⁸ Total storage estimates are used because data is not available on the recoverable volume and the level of sustainable withdrawals is unknown.

The Navajo aquifer is used in Diné Bináhasdzo by Black Mesa, Western Navajo and the northern communities along the San Juan River. It is also a primary source of water for the Hopi Reservation. The extent of future availability of this water source will depend on finding alternative coal transportation for the Peabody Coal Mine. If transportation by some other means than coal slurry is found and other major industrial users are not developed, there should be adequate water to meet future growth needs for the Chapter area and other users.

~~We can begin to estimate current and future water use.~~ There have been studies done but data is unavailable at the update of the manual. Research will be done to obtain current accurate information. The 2000 census reported a population of 3,066. Water use in Diné Bináhasdzo varies from around 100 gallons per day per person for households on NTUA water systems to as little as 10 gallons per day per person for households that haul water.

Current annual water use by Chapter residents probably ranges from around 153,300 to 306,600 gallons per day since less than 50% of the households are served by the NTUA system. 325,850 gallons of water equals 1 acre-foot. On the high end, annual water use can be estimated at 344 acre-feet of water per year. In actuality, it will take some years before the Chapter area uses this much water because most households are still hauling water and their use varies from 10 to 50 gallons of water per day.

Even at an annual population growth rate of 1.2%, the Chapter does not see future restrictions on the growth capacity of the community, due to the size and availability of water from the Navajo and other aquifers. Ability to meet water use demand will be determined by the development of the water resources.

⁵⁸ *Water Resource Development Strategy for the Navajo Nation*, The Navajo Nation Department of Water Resources, July 17, 2000. Table 3.1 pp 8.



View north towards Sunshine Mountain and Wepo Wash Ridge

*In Beauty now before me, I walk
In Beauty now behind me, I walk
In Beauty now below me, I walk
In Beauty now above me, I walk
In Beauty now around me, I walk
In Beauty now within me, I walk
It is finished in Beauty
It is finished in Beauty
It is finished in Beauty
It is finished in Beauty.¹*

¹ Diné Prayer

OPEN SPACE PLAN TABLE OF CONTENTS

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PURPOSE

The purpose of the open space plan is to preserve for the current and future community certain areas of land to be retained in a natural state or developed for recreational purposes.

This plan will help the community make decisions regarding:

- Allocation of resources for recreation uses,
- Economic development opportunities related to recreation,
- Areas of land reserved for grazing use,
- Areas of land which need special protection so that they can be kept in a natural state, and
- Areas of land which need special protection because of their importance to T'áá Dinéji (Navajo Way).

For the Piñon Chapter, the plan was based on the community vision statement and other sources of information including:

- Chapter Images: 1996
- Navajo Historic Preservation Department maps and review,
- Navajo Department of Water Resources data and materials,
- Navajo Department of Fish and Wildlife recommendations,
- Navajo Forestry Department materials, and
- Other sources.

A complete list of reference materials and information resources is listed in the Acknowledgment section of the report.

OPEN SPACE AND RECREATION GOALS

The Piñon Land Use and Open Space Map, located in the maps section of this plan, indicates those areas which are to be maintained as open space or used for recreational purposes.

In the Piñon Chapter area, open space uses take several forms:

- The preservation and restoration of grazing areas,
- The designation of land along washes for agricultural (crop growing) uses,
- Land set aside for community recreational uses, and
- Land designated by community members as “wilderness areas” that will be left undeveloped. The term “wilderness areas” is defined as areas which are kept in their natural state without construction of new

homes, structures, or roads and which can continue to be used for livestock grazing and wildlife.

This open space plan also addresses the community's recreational needs and goals. Please note that some of the goals listed below may overlap with other areas of concern. However, they are included here as the plan is comprehensive and wholistic in its concept and it is natural that a land use may have many different benefits to the community.

OPEN SPACE GOALS AND OBJECTIVES

The community developed the following goals and objectives related to Open Space uses:

Goal 1:

Areas of the Chapter should be left in a natural state to allow for a sense of openness, to preserve views, to provide living space for wild animals and to provide for outdoor recreation.

Objectives:

- Designate areas in the land use plan to be kept open and undeveloped for grazing. The areas will also help provide open space.
- Establish “wilderness areas” in the land use plan. These areas would be kept in their natural state and development would not be allowed. Areas to be included are:
 - Sunshine Mountain
 - Wepo Wash Ridge
 - Burnt Corn Ridge

Goal 2:

Create a place where the young people of the community can have a safe place to gather, to learn and to enjoy recreational activities.

Objectives:

- Create a community youth center
- Develop space within NHA compound as a park playground.
- This center will be located on the site designated for the community college

Goal 3:

Protect traditional and sacred sites within the Chapter area from damage or intrusion by growth and development.

Objectives:

- Identify sites for protection.
- Establish buffer zones around these sites and use land use planning to protect them.

Goal 4:

Develop activities and facilities that would attract tourism to the Chapter area:

Objectives:

- Support existing and expand weaving classes and workshops.

Goal 5:

Create alternatives to dry-land farming so that residents can grow crops more easily.

Objectives:

- Set aside land for agricultural use and create opportunities for irrigated land.
- Set aside land and establish greenhouses for community use.
- Create a Farmer's Market.

Goal 6:

Maintain and improve grazing areas because livestock is important to Diné culture.

Objectives:

- Preserve grazing land in the land use plan.
- Reseed rangeland with seeds and plants native to the area to help restore and conserve the land.
- Install spreader dikes along the washes to help increase the amount of water that seeps back into the local water table.

GOAL 7 :

SET ASIDE LAND FOR COMMUNITY RECREATION.

OBJECTIVES:

- DESIGNATE AN AREA ON THE LAND USE PLAN FOR RECREATION
- ESTABLISH A MULTI-PURPOSE RECREATION CENTER

GOAL 8:

DESIGNATE AREAS FOR OPEN SPACE AND AGRICULTURE.

OBJECTIVES:

- DESIGNATE THE AREA PRONE TO FLOODING EAST OF THE TOWNSHIP ALONG THE WEPO WASH ON THE LAND USE PLAN
- DESIGNATE AN AREA SOUTH OF N 4 ALONG WEPO WASH AS AN AGRICULTURE AREA ON THE LAND USE MAP

• **OPEN SPACE LAND USES**

The land use designations below describe the type and location of open space and recreational uses in the Chapter area.

LAND IDENTIFIED AS WILDERNESS AREAS

The community identified four areas which they would like to keep undeveloped as wilderness areas:

- Sunshine Mountain in the northeast portion of the Chapter area, between Wepo and Oraibi Washes,
- The Burnt Corn Ridge,
- The Old Cedar Area, and
- Wepo Wash Ridge which is also in the northeast portion of the Chapter area between the Wepo and Burnt Corn Washes.

These areas are to be left undeveloped and can be used for recreation, livestock and herb gathering. Uses that are not permitted are new roads, homesites, mining or the construction of new buildings and structures. Wood cutting/hauling may be allowed with special conditions.

LAND IDENTIFIED FOR OPEN SPACE

The community has designated three different types of open space. These areas are defined below and general locations given for each.

- Open space has been designated within the Piñon kintah in the area between the NHA housing tracts and the Piñon Loop road. The use of this land is to provide a buffer between the cemetery and other surrounding land uses and to protect the small drainage area from further development. This space could be secondarily used for walking, horse and bike trails between the School District land, the housing and other parts of the community.
- Existing grazing areas.
- New agricultural areas located along the washes and particularly along the small wash to the east of Piñon kintah and Wepo and Burnt Corn Washes.

LAND IDENTIFIED FOR RECREATIONAL PURPOSES

Specific community priorities are shown below in the areas where they would be located:

Proposed New Community Uses Tracts:

Sites have been identified within the Piñon kintah for community facilities including sites for:

- **A Community Sports, Recreation Center and Rodeo Grounds:** that will provide gathering space and wellness programs including exercise and sports programs for the community, located along northwest side of the Piñon Loop drive.
- **Community College with college & staff housing Site:** located on the southwest side of the Piñon kintah along N4 in Range Unit 307.

Workforce Housing:

- Located on the eastside of Pinon Chapter house and the Community College site.

OPEN SPACE LAND USE PLAN

The Open Space Plan Map is located in the Map section of the Comprehensive Report. The Open Space Plan maps shows areas for open space areas and recreational facilities and the Navajo Nation Fish and Wildlife Department's wildlife protection zones.



Grazing and homesite land in the northeast section of the Chapter area

What we do to the land can destroy what gives us life. Even now there are springs that no longer run. I am talking not only for myself, but for those who may be born tonight. We have to think of them. How will they drink? How will they live? What kind of life are we giving them?

-- Charles Yazzie Morgan of Dalton Pass¹

¹ *Between Sacred Mountains*, Larry Evers editor, Sun Tracks and the University of Arizona Press, Tucson, AZ; 1982. Pp. 245.

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LAND USE PLAN

RESIDENTIAL NEEDS

Housing

Housing in the Chapter area consists of scattered homes and housing subdivisions. Scattered homes are located around the Chapter area in family camp groupings. The housing type varies from traditional hogans to frame houses to mobile homes and includes FJUA relocation houses built for people who had to relocate from the Hopi partitioned lands. The condition also varies from very good/new to very poor. The Chapter does have housing rehabilitation funds available but the amount is not enough to meet all of the need.

Sub-division housing is primarily rental housing and has been constructed either by the Navajo Housing Authority or by the employers.

NHA has a total of 147 units in the Chapter community. Most of these are rentals although some offer homeownership through a rent to own program. The NHA also has a scattered site housing program for homeownership on homesite leases. These are less than 10.

The Piñon Unified School District has constructed teacher housing adjacent to its facilities. There are 87 housing units available as rentals in a mix of single family units and four-plexes.

The Piñon Health Center has constructed 47 staff housing adjacent to its facilities. There are housing units available as rentals to professional staff.

The Community School also provides housing. There is a 432 student capacity dormitory available for students and staff housing project known as “Smurf Village” has 19 rental units.

Additional workforce and college housing is being planned for future.

Existing Housing Assessment

The CLUPC members and chapter officials & staff conducted a visual survey of some of the existing housing in the Chapter area. The survey was done by vehicle to assess the exterior condition of the house and to determine the overall housing pattern. Condition was assessed as follows:

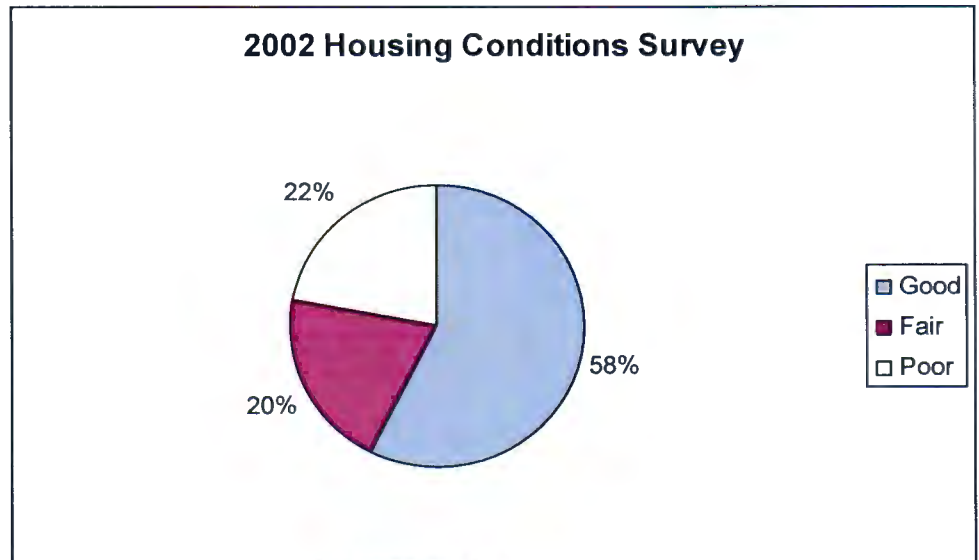
- Good condition: No repairs or paint needed.
- Fair condition: Some exterior repairs to trim, roof, siding, windows/doors or paint needed.
- Poor condition: Substantial repairs needed to siding, roof, windows/doors and trim.



New and old style homes in Piñon Chapter

A small selection of homes were surveyed in the northeastern and southwestern quadrants of the chapter, visual assessment of homes in other parts of the Chapter area indicated that housing conditions are similar throughout the Chapter area. 54 homes were assessed. There were: 30 frame houses, 10 hogans (log and frame), 8 mobile homes, 2 log cabins and 4 brick houses. 31 of the housing units were in good repair, 11 were in fair condition and 12 were in poor condition. There was no correlation between housing type and housing condition. The Committee did not assess occupancy.

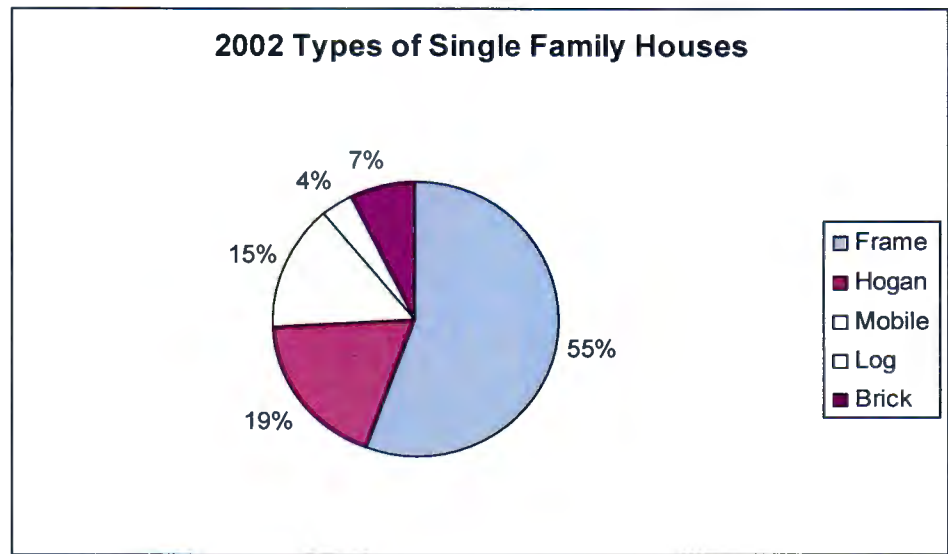
Housing Conditions



The condition of the homes varied with a majority of the homes in good condition. The chart above shows the general pattern of house conditions.

Homes are scattered throughout the Chapter area in the lower elevations and in flatter areas along washes and valleys. The majority of homes were clustered in camps of three to five homes; with some single homes and some camps with 9 or more homes. Housing conditions within the camps were varied with a mix of good, fair and poor conditions on the same site.

Housing Types



As shown in the chart above, most of the homes in the Chapter area are frame construction. About 1 in every five homes is a tradition hogan of either log or frame construction. About every 1 in three homes is either a mobile home, a log home or a brick home.

Housing Demand

The estimated growth rate will result in a need for 10 – 15 new homes per year.

The demand for new housing in this Chapter is created more by the growth and returning community member’s rate than existing overcrowding conditions or the physical condition of the housing stock.

The statistical growth projections indicate that there is some annual increase in the housing demand due to the small estimated growth rate of 1.2% annually. The current growth rate results in about 38 new residents a year. This is probably a mix of new births and residents moving back into the Chapter area. Assuming that there is also an out-migration of residents moving to other locations, there is an estimated demand for about 10 - 15 new housing units a year.

Despite the significant increase in the number of housing units over the past decade (20.4% increase), there is a historic unmet need for housing due to overcrowding.

Housing rehabilitation and remodeling is probably the greatest need with 42% of the surveyed homes needing some sort of rehabilitation and repair.

Housing Affordability

A significant portion of the population falls into the low and very low income levels. The housing needs for this part of the population is not being adequately met.

This would mean that there are at least 560 units in the Chapter area which need repairs.

Even with the NHA programs, housing affordability continues to be a problem. In the recent Census, the Piñon CDP had a poverty level of 70.3% -- that means that 7 out of every 10 residents made less than the poverty level in the United States. While the unemployment figures below are lower than in many other parts of the Navajo Nation, we can assume that there may have been some income gains, but that there is still a large percentage of Chapter households that fall below the poverty level.

The Community Development Division's 1999 analysis indicated that 30.23% of the labor force in the Piñon Chapter was unemployed. The 2010 census data on the poverty rate states, unemployment is a good indication of the level of need in a community, shows that 50 - 70% of the current households are in the low and very low income ranges.

The currently available housing programs are serving part of the existing housing need. Low income subsidized rental housing is not the full answer to the housing shortage as this solution appears to be disruptive of Diné family life and does not provide families and individuals with any financial security for the future. New solutions which address the cost, location and financing of new housing are needed if the current housing shortage is going to be adequately met.



Family camp in the Sunshine Mountain area.

Recommended Housing Strategy

The Piñon community has expressed that they do not want to see additional sub-divisions and prefer to see homes built in scattered sites. In fact, it may be difficult to receive approval from customary use families

for land withdrawals for sub-divisions. Given these conditions, the Chapter is recommending the following housing strategy:

*About 460 homes
need some repairs.*

*Piñon residents have a
strong preference for
scattered site housing.
There is a need for about
10 – 15 new homes per*

- **Housing Rehabilitation and Remodeling:** Increase the capacity of the existing housing stock through an expanded program that will provide both grants and loans for both rehabilitation and home expansion. Home expansion funds should be directed towards households with documented over-crowded conditions.
- An estimated 42% of the existing units need some sort of repairs. This means that there are over 560 housing units in the Chapter that need repairs.
- **New Housing:** The community states as a goal that they want to see new housing developed as “family clan pod homes;” meaning that they want to see new scattered site housing grouped together in family camps or family sub-divisions. New home construction should be focused on locating homes in or near existing family camps or in new family related clusters. The primary purposes of clustering is to a) work with existing utility lines, b) conserve grazing land, and c) encourage and respect cultural preservation. Customary use area families and clans should be encouraged to meet together to determine the land uses in their areas. This would include determining where new housing units should be located.

It is estimated that there is a need for approximately 10 - 15 new scattered site houses per year.



New home under construction with “model”

- **Legislative and Regulatory Reform:** Home site lease currently only allow one residential unit per lease acre. This not only discourages residential clustering which is conservative of land and

utility resources, but also disregards Diné cultural preferences in housing.

Create a self-help housing pool to increase affordable housing options. In this housing model, people and families work together to build homes for each other. The cost of housing is reduced because the labor is donated by the homeowners.

- **Sweat Equity Housing Model:** With household incomes low and the demand for scattered site housing high, the best solution may be to create a self-help housing corporation within the community. The community has a human resource in the number of individuals who have construction skills. The self-help housing corporation could help organize a sweat equity housing pool. This model is being used successfully in the Tucson, Arizona area and elsewhere to help low and very low income families obtain home-ownership. In the model, a group of 4 – 8 families or individuals are organized as a self-help housing cooperative. The families agree to assist each other in building a new home. Straws are drawn to determine which household will get the first home. The group builds the first home and then moves onto the second home, and so on until everyone in the group has a new home.

Residential Land Uses

The Chapter's preference is for scattered site housing using homesite leases in Clan group clusters.

GRAZING AND AGRICULTURAL NEEDS

Grazing and Livestock

The Piñon Chapter is part of BIA Grazing District 4. District 4 is inside of the NPL area which has no valid grazing permits. However 66% of the land is used for grazing by families to support their livelihood.

NPL is currently creating range units plans, carrying capacity and will be issuing new grazing permits. It is likely that the number of permits will be reduced due to the decreased carrying capacity studies.

Livestock and ranching remain a primary source of livelihood for many Piñon residents. People in this area are maintaining traditional livestock practices and most families still move from winter to summer camps.

Agriculture

Agriculture has been reduced to small family gardens as there are no irrigated farm plots in the Chapter area. There are an estimated 100 individual gardens in the Chapter.

The Church of Latter Day Saints (LDS) has assisted some families create and grow small, kitchen gardens with drip systems. The assistance program provided: training, seeds, fencing, materials for the drip system, and plowing. This is an ongoing program with a goal to double the number of gardens each year.

One of the goals for the Chapter is to develop better irrigation methods and water sources for farming.

Recommended Grazing and Agriculture Strategy

The community feels strongly about maintaining existing grazing areas and creating new areas for irrigated crop growing. In addition, they have expressed an interest in land restoration for grazing areas in order to increase productivity.

Grazing and Agriculture Land Uses

The Chapter's preference is maintain existing grazing areas and to create new agricultural areas along the main washes.

COMMERCIAL AND INDUSTRIAL NEEDS

Commercial activity within the Chapter consists primarily of retail businesses serving a smaller regional area including Forest Lake, Whippoorwill Springs, Blue Gap, Low Mountain, Hard Rock, Black Mesa, and the Hopi Reservation.

Retailers are located in the Piñon Township area and include:



Road in the White Valley/Oraibi Wash area of the Chapter

*By holy means I go about,
Because I am Holy Young Man I thereby go about,
Now Sun's feet are my means of travel,
Now Sun's legs are my means of travel,
Now Sun's travel means are my means of travel,
Now Sun's body is my means of travel,
Now Sun's arm is my means of travel,
Now Sun's mind is my means of travel,
Now Sun's voice is my means of travel,
Now Sun's eyes are my means of travel,
Now Sun's hair is my means of travel,
Now Sun's plume is my means of travel,
After I have ascended Dark Mountain it is pleasant...
As thereby I go about....¹*

¹ Excerpt of Haile's unpublished transcription of the Male Shootingway, pp. 179 -81. *Earth is My Mother, Sky is My Father: Space, Time, and Astronomy in Navajo Sandpainting*, Trudy Griffin-Pierce, University of New Mexico Press, Albuquerque, NM; 1992. pp. 99.

THOROUGHFARE PLAN
(Transportation Plan)

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**COMMUNITY PRIORITIES FOR
TRANSPORTATION**

PURPOSE

The purpose of the Thoroughfare Plan is to plan for and provide a system of and design for:

- Existing and proposed major streets,
- And to distinguish between limited access, primary and secondary thoroughfares,
- And to relate major thoroughfares to the road network and land use of the surrounding area.

This plan will help the community make decisions regarding:

- Allocation of resources for road improvements and maintenance,
- Location of new facilities and buildings, and
- Emergency planning.

COMMUNITY PRIORITIES FOR TRANSPORTATION

Specific community priorities relating to thoroughfares are shown below:

Concern:

- The Chapter Area's roadway and public transportation system needs to be improved to meet existing and future needs.

Goal:

- Establish a long term plan for roadway improvements and public transportation.

EXISTING ROAD NETWORK

The Chapter has been working with a 20 year Thoroughfare Plan that was prepared by the Navajo Department of Transportation, Planning Division. Since this plan did not have a lot of detail, the CLUPC Committee worked with a Consultant in the original plan and created a proposed Thoroughfare Plan for the Chapter Area. This plan:

- Categorizes roads,
- Recommends new roads,
- Recommends road closures or realignments, and
- Recommends road names within the Piñon Kintah.

Accessibility to Transportation

The CLUPC Committee also recommended that secondary access roads be named upon completion of rural addressing.

The Chapter is served by the following paved highways; both of these highways are currently two lanes:

- Navajo Route 4 connects to US Highway 191 near Chinle and the pavement ends in Piñon and then continues unpaved to Hopi Culture Center. NN Route 4 has recently been widened and repaved from the eastern intersection to Cottonwood. The remainder of the roadway to Burnt Corn wash bridge was recently repaved.
- Navajo Road 41
This roadway connects from Navajo Route 4 at the intersection near the Piñon Shopping Center and intersects with Arizona State Highway 160. Pavement ends near Forest Lake Chapter House.

The rest of the chapter area is served by spot gravel and unimproved roads. Major dirt roads serving portions of the Chapter area are as follows:

- BIA Road 8068 serving the Burnt Corn Wash Valley area,
- BIA Road 8073 serving the east side of the Chapter area,
- BIA Roads 8072 and 8073 serving the southern section of the Chapter area,
- BIA Roads 8060 and 8062 serving the southwestern corner of the Chapter area,
- BIA Road 8031 serving the White Valley area connecting to H4 (Turquoise Trail),
- BIA Road 8030 serving the north Wepo Wash area, and
- BIA Road 8032 serving the northwest quadrant of the Chapter area.
- N4 to N8073S loop road serving the relocated families along this road
- There are no Navajo County roads in the area.

Responsibility of road maintenance belongs to BIA Roads department. Accessibility by automobile and buses is not always available due to flash-flooding in the area and heavy snow storms. Mud can also make local roads impassible and contributes to the creation of new “informal” tracks.

NN Route 4 has been widened and resurfaced. However accessibility by transportation trucks is limited. Large trucks are able to access Piñon Community, but parts of the roadway are in poor condition.

This limits the location of any future larger scale manufacturing facility that might be considered by the Chapter.

BUS SYSTEMS AND MASS TRANSIT AVAILABILITY

Bus service is available for school children. Available bus routes include:

- The HeadStart Program
- The Piñon Community School
- The Piñon Unified Public School
- The Black Mesa Community School
- The Hopi Jr/Sr High School
- The Chinle Unified School District
- The Many Farms Boarding School
- Navajo Preparatory School
- Local College Students travel in privately owned vehicles on a daily basis.

There is a general public transit system operated by the Navajo Nation Transit system serving the community.

There is no local air or rail transit service available. Rail service is only available along US Interstate 40 with the closest major hub at Gallup, New Mexico or Phoenix, Arizona.

The Chapter area has an old and un-used air strip and the CLUP Committee is proposing a new air strip on the east side of the Piñon Community. There is a small improved air strip in Chinle that is used for medical transport & businesses.

Chinle, Black Mesa/ Peabody, Gallup and Winslow, Arizona have small airstrips for commuter planes. Otherwise, the closest air transit hubs are in Albuquerque, New Mexico or Flagstaff, Arizona.

TRANSPORTATION STRATEGIES AND THOROUGHFARE IMPROVEMENTS

Transportation Strategies

The community identified one transportation goal:

Establish a long term plan for roadway improvement and public transportation, including bridges or culverts.

Roadway improvement projects which have been partially funded and are in process of seeking additional funding include:

- N8031 from Pinon Kintah through the White Valley area to H4 has its clearances and roadways realignment survey completed. Funding has not been allocated for construction only partial funding for clearances. Construction is scheduled for FY 2019.
- Local community road N8073, 8032, 8072, 8030 & 8073N will be projected for graveling.

THOROUGHFARE PLAN

The Chapter's Thoroughfare Plan map is located in the maps section of the Comprehensive Plan. The Map shows the Chapter's thoroughfare system of existing and proposed roads and road improvements.

Roadway Categories

The Map uses the following road categories and definitions.

- **Main Highway:**

These are all existing and proposed Federal, State and Navajo Nation highways. There are no existing Navajo County roads.

- **Primary Access Roads:**

These are the community Roads and other existing and proposed roadways that originate off of Main Highways and serve major sections of the Chapter area.

- **Secondary Access Roads:**

These are access roads that serve family residential areas.



Pinon Chapter House

Our forefathers struggled for survival so that we may enjoy what we have now. I should think the least we can do is be grateful to them and remember what they stood for. We look back and see how they suffered and here we are comfortable and have all the wonderful opportunities knocking at our doors. Be ready to accept these, your future is what you must think about.

-- T. Ration, Smith Lake, NM 1976¹

¹ *The Sacred, Ways of Knowledge, Sources of Life*, Beck, Walters, Francisco, Navajo Community College Press, Tsale, Arizona; 1977.

COMMUNITY FACILITIES PLAN

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PURPOSE

The purpose of the community facilities plan is to show the location, type, capacity, and area served of:

- Present,
- Projected, and
- Required community facilities.

These may include, but are not limited to:

- Recreation areas,
- Schools,
- Libraries, and
- Other Public Buildings.

The plan will also show related public utilities and services and indicate how these services are associated with future land uses.

This plan will help the community make decisions regarding:

- Allocation of resources for community facilities and services
- Economic development opportunities related to community services
- Areas of land to be allocated to public serving uses, and
- Location of needed public serving and community facilities.

COMMUNITY PRIORITIES FOR COMMUNITY FACILITIES

Specific community priorities relating to Community Facilities are shown below. Additional community service and facility needs are listed in the table summarizing the results of the Community Facilities Survey.

Community Facilities and Services

The facilities and services listed below were determined to be community priorities by the Chapter Members. They are listed as a) projects which are either under construction or have been funded, b) projects which are needed but not yet funded, or c) services to be provided by private sector investment.

Under Construction or Funded

- **Dzil yijjin Judicial & Public Safety Complex** is in the planning stages.

This facility will provide space for the following public safety services:

- Police Department
- Fire Department
- Pinon Search and Rescue (local volunteer group),
- Emergency Medical Services,
- Justice Center, with detention, and
- Courts

- **An Inter-Agency Multi-Purpose Building** to provide a one-stop shop for Navajo Nation government services, which will include a coffee shop, library, and public office, computer services and post office.
- **Develop Pinon Business Strip** needs to be cleared and established for future economic development projects.
- **A Community College or College Branch Facility** is needed so that Dził Yíí Jíin Region residents will not have to travel so far to receive education beyond high school. 875 acres is already withdrawn for the development.
- **A Local Farmer's Market** is needed to provide a retail venue for local and regional farm produce and to encourage Chapter residents to re-establish crop growing in the Chapter area.
- **A Community Youth Center** is needed to provide the young people of the community with a safe place to gather, to learn and to enjoy recreational activities.
- **A Multi-Purpose Veterans Center;** for wellness and health among the Chapter residents and to provide the residents with a place for community gatherings, exercise, health education and other activities.
- **The Senior Citizens' Center** needs to be expanded to meet anticipated growth. One is to expand the existing facility and the second is to build a new facility with an adjacent assistant day care.
- **The Pinon Post Office** needs to either expand its facility or build a new facility as the demand for boxes and services has outgrown the current building. This will be in the proposed Multi-purpose Building.
- **The Piñon Health Center** has reached the stage of expansion due to population growth.
- **A Child Care Center** for children not enrolled in the HeadStart program is needed to assist working families.
- **A Chapter Humane Society program and facility** is needed to help educate people on how to properly take care of their livestock and to prevent livestock abuse.
- **A Local Veterinary Service** is needed so that people do not have to go to Window Rock for services.

*Projects Listed as Priorities
by Chapter Resolution*

COMMUNITY FACILITIES SURVEY

Survey Results

The following survey was conducted and compiled during 2017.

Public Sector

1. Organization: **Senior Citizen Center**

Contact Person: Ramona Nalwood

Location: Piñon Chapter House compound

Mailing Address: PO Box 41, Piñon, AZ 86510

Phone Number: 928-725-3522

There are four fundamental types of services the Senior Citizen Center (SCC) provides for the elderly in Piñon and the surrounding area. The services include congregate meals at the SCC facility, home deliveries for the immobile elderly. Transportation and information and referrals to other services based on the senior's needs. The SCC organization receives both State and Tribal funding. The State funding covers operations and the Navajo Nation takes care of staffing. Even though the SCC has multiple sources of funding, the organization still lacks adequate funds to meet current needs in staffing and services.

SCC employs 1 Supervisor, 1 Cook, 1 Driver, 1 Volunteer, making a total of four (4) to prepare home delivery meals for 20 elders and congregate meal for 30-35 senior citizens. To adequately meet current needs, SCC would like to hire extra drivers to transport the elders outside of the Piñon area for appointments, community activities, etc. Also, additional cooks and coordinators would provide more variety and flexibility in meal preparation and activities. There is a critical need for a custodian. The current staff assists in the upkeep of the facility.

The existing 2,461 square foot SCC facility is in decent condition on the inside and outside. The facility has adequate handicap accessibility for: the bathrooms, at tables, at entry doors, and has ramps on the side of the building. The facility has a dining room with a small cubicle office attached to it, a kitchen, 2 bathrooms and a janitorial closet. One of SCC's primary goals is to increase the size of the building to accommodate the growing senior citizen population.

The SCC anticipates growth over the next 5 years as more and more Navajos reach retirement age and this will increase demand for expansion of facilities, services and programs. In the next 5 years, the numbers will continue to rise as the baby boomer generation starts to reach retirement age. Funding will be imperative in all areas of the organization for the upcoming retirees; especially, in the expansion of or a new SCC facility located in the Piñon Chapter compound.

2. Organization: Navajo Nation Women, Infant & Children Nutrition Program

Contact Person: Sharon Tso

Location: Piñon Chapter House compound

Mailing Address: PO Box 249, Piñon AZ 86510

Phone Number: 928-725-3470

The Navajo Nation Women, Infant & Children Nutrition Program (WIC) is a supplemental nutrition program which provides families of Piñon and the surrounding area with supplemental foods in order to promote good health for pregnant, breastfeeding and postpartum women, infants and children up to five (5) years of age. The program is designed to introduce WIC and make appointments for eligibility checks. The outreach workers also provide nutrition and breastfeeding education to help women choose the right foods for themselves and their children; referrals for health care and follow-up health checks; and provide supplemental foods like milk, cheese, eggs, juice, dry peas and beans, peanut butter, cereals and other nutritious foods.

The organization is funded by the Navajo Nation through the United States Department of Agriculture (USDA) and currently employs, 1 temporary Clerks and 1 Nutritionists making a staff of 2 who serve 650 clients each month. WIC is adequately meeting its current client load.

The WIC facility is located in the Piñon Chapter House compound. The WIC facility consists of a 2,754 square feet double wide trailer with 5 offices, 2 bathrooms, a storage room and a lobby. The facility is handicap accessible up to the vestibule but it needs handicap accessibility to the bathrooms and vestibule doors. Also, in order to keep the dust down, the parking lot needs to be paved.

WIC anticipates that the client load will grow within the next 5 years due to the poor Navajo economy and the 1.2% population growth factor. But this growth will not be significantly enough to establish another facility in the area.

3. Organization: Navajo Housing Authority

Contact Person: Bertina Preston

Location: 1 mile north of Navajo Nation Shopping Center off Navajo Nation Highway 41

Mailing Address: PO Box 1011, Piñon, AZ 86510

Phone Number: 928-725-3680

The Navajo Housing Authority (NHA) currently provides affordable, quality homes through rentals and home ownership. New homes for

ownership are built within the existing NHA subdivisions in the area, or on a one acre homesite lease approved by the Bureau of Indian Affairs. Rental units are only available in subdivision areas located in Black Mesa (Kits' iili), Forest Lake, Low Mountain, Piñon and Whippoorwill Spring. Other services NHA provides include:

- The Crime Prevention Program: prevention activities, educational workshops and training are provided to residents,
- Resident Services Program: residential organizations have an opportunity to seek self-efficiency through the development of Neighborhood Watch Programs and other services related to Community Oriented Policing, and
- Home Education: 1.) Counseling is provided on Lease/Occupancy Agreement, 2.) Information is provided about the NHA History, 3.) Clients are informed about the NHA Collection Policy, 4.) Clients are counseled on creating a basic family budget, 5.) Clients are counseled on family & home management techniques, 6.) Information is provided on how to save energy in the home, on how to care for the property, on yard planning, on fire and home safety and on basic maintenance.

NHA is funded by Native American Housing Assistance and Self-Determination Act (NAHASDA) from the 1996 U.S. Block Grant funding. NHA is always seeking more funds but for now funding adequate meets current needs in programs and staffing. Additional funds are needed for the homesite housing program.

The local NHA office currently has the following staff, by department: 1 in Housing Management Division, 3 in Administration, 6 in Customer care, 1 in Accounting and 3 in Maintenance -- making a total of 14 employees to assist 1,000+ clients.

NHA's current 2,615 square foot facility consists of a lobby, a front desk area, a kitchen, a conference room, a mechanical room, a custodial room, 4 closets, 2 bathrooms and 10 office rooms. The brand new building occupies 7 acres of land in the 119 unit subdivision housing within the Piñon chapter area. This subdivision housing is primarily rental housing. The rental units consist of 6 two bedroom units, 5 three bedroom units, 26 four bedroom units and 12 five bedroom units. Since the NHA facility is fairly new and equipped with handicap accessibility, it adequately meets current needs and there are no plans to open another facility (additional modular units were added in 2016).

The NHA client base is expected to grow moderately over the next 5-10 years. This evaluation is based on all variables staying constant, and the Navajo Nation Community Development Department's current growth factor of 1.2%. This would result in an estimated population, of 3,399 by 2009 estimated population would be and 3,584 by 2014. Therefore, an

additional 74 units would be needed to house the extra 370 new residents.

4. Organization: General Assistance Social Services

Contact Person: Freddie Yazzie

Location: South of Navajo Nation Highway 4 across from the Piñon Community School housing

Mailing Address: PO Box 127, Piñon, AZ 86510

Phone Number: 928-725-3701

General Assistance (GA) provides financial assistance to adult individuals who are: disabled (physically or mentally) to a degree that they are unemployable and low income; live with a disabled person; or live in the same home with and provide custodial care to, a disabled person. GA is a time-limited program with a payment limit of 12 monthly payments within any 36-consecutive-month period of time. Individuals may receive an additional 6 months of GA after the expiration of the 12 month payment limit when there is a hearing pending before the Administration Law Judge based on the denial of Social Security Disability or Supplemental Security Income (SSI) benefits. Adult caretakers who provide custodial care to a disabled person are not subject to the 12-month limit. To meet eligible requirements for General Assistance (GA), applicants must be disabled and income-and-resource eligible. Disability must be determined by a medical examination or current medical records that validate a disability of 12 months or longer from the date of application. Other programs include Emergency Burial, Burial Assistance and Low Income Energy Assistance. GA is a subsidiary of the Department of Economic Security; therefore, it is funded by state and Federal grants titled Community Service Grant Block, DL 638 Federal Grant, BIA and Tribal Grant. Similar their counterpart (DES), GA is having difficulty in obtaining funds to increase service to meet the current need.

GA currently staff 2 Representatives creating a total of 2 employees to handle 30-50 clients a day. GA says they barely meet current needs in staffing and programs due to funding availability.

The GA facility consists of a 2,573 square ft double wide trailer with 5 office rooms, 1 bathroom and 1 filing room making a total of 7 rooms to accommodate the staff. The facility is old and in need of improvements for interior handicap accessibility and emergency exit signs on top of the doors. Signs are needed out by the road to help make it easier for potential clients to locate the facility. The parking lot also needs to be paved to keep the dust to a minimum. GA doesn't plan on expanding its facilities due to limited funding.

The General Assistance client load is expected to grow over the next 5 years predominantly due to high unemployment rate on the Reservation. With a high unemployment rate, the poverty rate is also high. Because of

these underlying conditions, the organization is expected to increase its case load to 50+ new clients on a daily basis. Division of Economic Development (DED) reported the Navajo Nation's unemployment rate at 43.65%, and the per capita income at \$6,217 per year compared to Arizona's unemployment at 4.10% with a per capita \$25,189 in 1999. This growing trend of unemployment has gradually worsened in recent years and is expected to exacerbate in the next 10 years; unless, a better plan is created to steer the Navajo economy towards a viable solution. The expansion of the organization's services and programs are on hold for now due to limited funds.

5. Organization: **Piñon Post Office**

Contact Person: Lucinda Begay

Location: 1/2 mile north of Navajo Nation Highway 4 between Piñon Community School and the Chapter House

Mailing Address: PO Box 998, Piñon, AZ 86510

Phone Number: 928-725-3252

The Piñon Post Office's primary service is mail delivery to the public. The U.S. Postal Service is part of the Federal government. The Piñon Post Office currently employs 1 postmaster and 2 Clerks to sort and deliver mail. This staffing is adequate for current levels of service but will grow as the community grows.

The 2,139 square foot post office facility is located 1/2 a mile north of Navajo Nation Highway 4 between the Community School and the Piñon Chapter House. The facility has a mail delivery room, a room for mail boxes and a customer service room that is disable accessible. Because of the growing population trend, the Post Office needs to expand its facility to meet demand for more mail box spaces and services. Until more funds are granted to build a new post office facility, the current office will remain as it is.

6. Organization: **Piñon Unified School District #4**

Contact Person: Chris Ostgaard, Superintendent

Location: 1 mile north of Navajo Nation Shopping Center off Navajo Nation Highway 41

Mailing Address: PO Box 839, Piñon, AZ 86510

Phone Number: 928-725-3450

The Piñon Unified School District #4 (PUSD) functions to provide educational service to K-12 grade students of Piñon and the surrounding area. The school also provides a Head Start program, Special Education program. The school is funded by the Federal and Arizona State governments through the Department of Education.

The PUSD employs approximately 284 personnel in four departments: high school, middle school, elementary and the district administration. Administration includes support services, site team, site council, maintenance, bus drivers, security and special education. An estimated 1,160 students attend the school district. The school budget sustains current needs for staffing and programs.

There are three main facilities on the 35 acre land set aside for PUSD and teacher housing:

- First, the 89,000 square ft Piñon Elementary School facility located south of the school compound consists of 47 classrooms, 10 bathrooms, 10 offices, 3 custodial rooms, 3 electrical rooms, a library and cafeteria with a kitchen and a stage area, all accessible to the disabled.
- Second, the 62,000 square ft Piñon Middle School facility located in the center of the school compound consists of 42 classrooms, 6 administration offices and 1 teachers lounge, a library, 4 restrooms and a cafeteria/gym with a band, servers, boys and girls locker rooms and an office, all handicap accessible.
- Third, the 110,000 square ft Piñon High School facility located on the north side of the compound consists of 25 classrooms, 4 restrooms, 13 administration offices with 2 restrooms, 5 custodial closets, library with 5 offices, cafeteria with a kitchen, physical education classroom with a weight room, boys and girls locker/shower rooms, gymnasium, drama and music room, auditorium was recently added all handicap accessible.

The PUSD expects the student population to grow within the next 5 to 10 years based on the 1.2% growth factor. The school is already extending the facility with more classrooms to accommodate the student population growth. Other than the facility expansion described above, the school does not plan any other expansion of its programs, services or facilities. The PUSD sustains current service needs in programs, services and facilities.

7. Organization: **Piñon Community School**

Contact Person: Principal

Location: Center of Piñon community west of Piñon Post Office off Piñon Loop Rd

Mailing Address: PO Box 159, Piñon, AZ 86510

Phone Number: 928-725-3319

The Piñon Community School (PCS) is a K-12 grade educational institution that provided residence hall accommodations to 42 kindergarten students, 52 residential students in 2016. The school now serves 90 students with a staff of 5 in administration, 26 support staff, 12 in dormitory living, 7 certified teachers making a total of 50 employees.

Students grades 1-12, live in dormitories within the PCS compound and are bussed to the Piñon Unified School District campus for classes. Other programs the school provides include: social services for abused and court appointed children who reside at on the school, sports and the Indian Club which plans after school activities. The school is funded by the State and the Bureau of Indian Affairs. Current funding adequately meets the services and programs. However, the Community School needs the addition of more extracurricular programs to attract more students and more extracurricular instructors to ensure quality support services for the students.

The 18 acre PCS campus has 10 buildings and a residential teacher housing compound called “*Smurf Village*. ” The total gross area of the buildings in square feet is as follows:

Administration---ground level	2,852
Multipurpose---lower and ground level	18,635
Dormitory C---lower-ground-upper level	21,978
Dormitory D---ground-upper level	15,434
Dormitory E---ground-upper level	21,844
Dormitory F---ground-upper level	15,434
Cafeteria---dining and kitchen	6,755
Kindergarten	7,395
Maintenance	5,300
Building K #316 South	2,182
Total Gross Area in square feet	117,809

The Piñon Community School facilities are fairly new, in good condition, and are adequate to meet current needs. The administration does not expect to expand within the next 10 years, unless student enrollment grows.

The following is a description of the 10 facilities:

Main Building: The top floor is currently used for administration and has a vestibule, 7 offices (clerical, support service, Federal programs, executive, assistant director, business manager, accounting), a conference room, a janitor closet, electrical, mechanical and storage room, men's/women's restrooms and a control room.

The second level is used as a multipurpose facility and has a vestibule, men's and women's restroom, 2 lobbies, concession, 3 storage rooms, 2 alcoves, stage, multipurpose, boys and girls locker/shower, janitor/chemical storage, elevator, elevator equipment room, electrical room, stairs and control plant.

The ground level has a vestibule, lobby, living room, an office, storage

room, games, elevator, janitor closet, art room, vending and stairs.

Dormitory C: The ground level has a vestibule, a tutoring room, a restroom, elevator, elevator equipment room, counselor and dorm manager office, lobby, 28 dorm rooms with handicap room included, alcove, stairs, men's shower/restroom, a mechanical, electrical and laundry room.

The upper level has a lobby, elevator, janitor closet, counselor and dorm manager office, storage room, 28 dorm rooms (including a disabled accessible room) with 14 restrooms/showers, laundry room, mechanical chase and stairs.

Dormitory D: The ground level has 14 dorm rooms, an alcove, stairs, a restroom and showers, a mechanical, electrical and laundry room.

The upper has 24 dorm rooms, a restroom and showers, laundry room, janitor/storage closet and stairs.

Dormitory E: The ground level has a lobby, elevator, elevator equipment room, laundry and ironing room, a restroom, counselor and dorm manager office, tutoring room, 4 isolation rooms with restrooms, nurse/changing room, exam room, a restroom, a waiting room, barber shop, living room, vestibule, 12 dorms with disabled access room included, restroom and showers, alcove and stairs.

The upper level has a lobby, elevator, janitor closet, laundry and ironing room, a restroom, counselor and dorm manager's office, game room, home living specialist, art room, vestibule, 13 dorm rooms, a restroom and showers and stairs.

Dormitory F: The ground level has 14 dorm rooms, alcove, stairs, a restroom and showers, a mechanical, linen and electrical room.

The upper level has 15 dorm rooms, stairs, a restroom and showers, a linen and storage room.

Each dorm room holds 4 students. So the total count of dorm rooms is:

- Dorm C holds 56 dorm rooms;
- Dorm D holds 38 dorm rooms,
- Dorm E holds 25 dorm rooms,
- Dorm F holds 29 dorm rooms

for a total of 148 dorm rooms to accommodate a maximum of 592 students.

Other buildings include:

Cafeteria: The facility has 2 vestibules, dining and service area, laundry

room, women's/men's restroom, receiving, an office, janitor closet, can wash, dry storage, mechanical and electrical room, another storage room, dish washing, food prep, cooking, walk-in freezer and cooler.

Kindergarten: The facility has 2 vestibules, a common area, 4 classrooms, 4 restrooms, a handicap restroom, janitor closet, a mechanical, electrical and laundry room.

Maintenance: The facility has a security and maintenance office, evidence room, janitor closet, women's/men's restroom, a mechanical and electrical room, bus/work bay, bus bay, tool room, office, workshop, paint storage, transportation office, control room welding, storage and dock.

316 South: The facility has a library, classroom, office, handicap unisex restroom.

The Piñon Community School anticipates slight growth within the next 5-10 years. One determining factor is the number of student enrollment. In recent years, the difficulty of recruiting and retaining students who live on campus has been affected by the benefit regulations for families eligible for public assistance. Bussing students from home is financially more favorable for families than the prospect of losing benefits when the household numbers are reduced. Plans to expand programs, services and facilities are directly related to student enrollment and are not likely to increase significantly.

Organization: Piñon Fire Department (PFD)

Contact Person: Stanley Nakai

Location: 1/4 mile north of Navajo Nation Highway 4 on the Piñon Community School compound

Mailing Address: PO Box 159, Piñon, AZ 86510

Phone Number: 928-725-3236

Piñon has a limited fire protection service consisting of a 12 persons volunteer group covering Piñon and the surrounding area including the communities of Hard Rock, Forest Lake, Blue Gap, and Low Mountain. The service area covers more than a 30 mile radius. The Piñon Fire Department provides two basic services to the public: basic life support (CPR, Medical First Responders and First Aid) and extinguishing burning structures and houses. The organization receives annual funding from the Bureau of Indian Affairs and severely effected by BIA funding cut backs. The PFD budget does not adequately meet current needs for staffing and services. The organization needs the new rescue and protective equipment for the volunteers and additional training in brush fires and search and rescue.

The PFD does not have a facility of its own. The PFD shares the

maintenance building on the Piñon Community School campus (See Maintenance Building in the Piñon Community School facility survey for measurements and characteristics). There are plans to build a new facility on the Public Safety Complex site along Navajo Nation Highway 41.

The PFD expects the need for services will grow in 5-10 years in all aspects of the organization primarily due to the affects of the 1.2% population growth trend (NNCDD). The greater the population in a community the greater it is for potential crime and fire hazards.

Organization: Piñon Health Center

Contact Person: Clinic Administrator

Location: 2 miles East of Pinon Shopping Center

Mailing Address: P.O. Box 10, Piñon, AZ 86510

Phone Number: 928-725-9500

Piñon does not have a hospital facility. However, Piñon does have a health clinic services under programs with the Chinle Comprehensive Health Center. These programs serve a population of estimated 15,000+ people in the Piñon and surrounding chapters. Clients have a choice of driving a distance of 50 miles one-way to the Chinle Comprehensive Health Center in Chinle or visiting the small, often overcrowded, out-patient clinic in Piñon. Currently, Piñon Health Clinic provides out-patient services four and half days a week and provides limited medical services such as nursing support, laboratory and pharmacy. Full time Mental Health, Health education and Dental services are available. Emergency medical services such as ambulance service are available from the Chinle Comprehensive Health Center. Since the area receives limited medical and out-patient services, Piñon Health Clinic rose to third on the priority list of the Indian Health Service and ranks first on the out-patient (no overnight hospital beds) list for the Navajo Nation. The Piñon Health Clinic is still seeking adequate funding for staffing, programs and services.

Currently, several Chinle Indian Health Services (IHS) hospital medical staff rotates to provide weekly services for Piñon. The current Piñon Health Clinic staff consists of a Clinic Coordinator, 2 Registered Nurses, a Pharmacy Department Technician, a Laboratory/X-ray Technician, 2 Medical Record Clerks, 2 Registration Clerks, 2 Dental and 3 Counselors making a total of 13 employees to maintain an efficient operation for the Piñon Health Clinic.

The current 4,394 square ft Piñon Health Clinic facility, is located 1/8 of a mile north of Navajo Nation Highway 4 next to the Piñon Community School. The existing facility is disabled accessible and has a vestibule, 4 restrooms, a pharmacy room, a records room, 3 offices, a waiting area, screening room, 4 exam rooms, and 3 storage rooms. To reduce the overcrowding of out-patient and improve medical services, Piñon organizational Health Steering Committee is overseeing the development

of a new ambulatory health center.

The Piñon Health Center has been constructed and in operation for over 10 years. The health clinic is located 1 1/2 miles SE of Piñon Chapter House, on Navajo Nation Highway 4. The Health Center provides full-time basic medical services and plans to include a 24-hour emergency medical services based on funding.

The Piñon Health Center, is expected to grow in 5 years and will continue to grow over the next 10 years based on the 1.2% population growth trend. It will serve as the main health care provider to the 15,000+ population of Piñon and the surrounding chapters.

Organization: Piñon Chapter House

Contact Person: Sharon Begay

Location: Middle of Piñon, north of Navajo Nation Highway 4, on Piñon Loop Rd

Mailing Address: PO Box 127, Piñon, AZ 86510

Phone Number: 928-725-3710

The Piñon Chapter House under the Chinle Government Agency of the Navajo Nation serves the Piñon area with assistance in water hauling, housing, weatherization, supplemental educational assistance, temporary employment and other governmental services including information on homesite lease and grazing regulations. The Piñon Chapter is funded by the Navajo Nation and seeks grant funding for additional projects and programs. The Piñon Chapter currently needs improvements in programs and services.

Piñon Chapter has 5 Chapter officials: 1 Council Delegate, Chapter President, Chapter Vice President, Chapter Secretary/Treasurer, and Grazing Committee Member. Chapter House staffing includes the Chapter Manager, the Administration Assistant and temporary employees to assist a population of around 15,650 persons. Piñon chapter needs extra staff to aid in planning.

The existing 3,831 square foot Piñon Chapter House facility is located in the middle of Piñon, 1/2 of a mile north of Navajo Nation Highway 4, on the Piñon Loop Rd. It is in good condition. The Piñon Chapter facility consists of 4 offices, a waiting area, 4 restrooms that are disabled accessible, a janitor's closet, a conference room, 3 storage rooms, a kitchen and a public assembly hall. The facility is adequate for the community use. No plans have been implemented for future expansion of the Chapter facility. What is proposed is a multipurpose building.

The Piñon Chapter is expected to experience a higher level of growth over the next 5 - 10 years since Piñon is one of the fastest growing community

on the Navajo Nation.

Organization: Piñon HeadStart (HS)

Contact Person: **UNKNOWN**

Location: 1/2 mile north of Navajo Nation Highway 4 on Navajo Nation Highway 41 on the Piñon Unified School District compound.

The Head Start (HS) program serves children to five years of age. HS was established in 1968 to serve children and their families who meet the low income guidelines including children with special needs who make up 10% of enrollment. The program is funded by a grant from the U.S. Department of Health and Human Services. The objective of the program is to provide an early learning environment which promotes positive growth: mentally, socially, emotionally and physically through planned activities. In 1998, the Navajo Nation President issued an executive order to introduce and preserve the Navajo Language as a medium for teaching the children within the HS classroom. The Navajo language is unique and the program is interested in assisting with preserving the language. There are two types of settings parents can choose for their children: A center-based program where children are bussed to the center for 3 1/2 hours of teaching. Further, the center-based program provides children the opportunity to increase language and social stimulation through interaction with peers. In the home-based program, children are visited by a Home-Visitor once a week to provide educational activities. The program provides two group socialization activities on a monthly basis to promote language and social stimulation. The parents or legal guardians' participation is vital to the child's learning opportunities. So far, the HeadStart program adequately meets current needs.

Piñon Head Start employs seasonal workers 131 days per year. Staffing includes: 2 Bus Drivers, 2 Teacher Assistants, 3 Home-based Visitors and 2 Center Teachers to provide education to 40 center-based and 36 home-based preschoolers. Piñon HS's budget adequately meets current staffing needs.

HS has two facilities on 2 acres of the Piñon Unified School District campus, known as Center 1 and Center 2. Center 1 is an estimated 544 square foot single wide trailer consisting of a handicap ramp, 2 restrooms, a corridor, an office, a kitchen and a classroom with a capacity for 17 preschoolers. It is in fair condition and needs some plumbing renovations. Center 2 is an estimated 392 square foot single wide trailer consisting of an office with cubicles, 2 restrooms, and a classroom with a capacity for 17 preschoolers. It is in fair condition and needs some renovation due to weatherization. HS needs a new facility and have plans to construct a new facility (north of Piñon Loop and the Catholic church and east of the Presbyterian church) as soon as funds are available.

Piñon Head Start expects to grow in clients and programs. The growth projections are based on the 1.2% population growth trend and on plans to expand programs to serve working, middle income families. This expansion will be a strategy for developing funds to sustain the programs.

Location and Service Areas

The map on the next page indicates the location of the above community facilities and the general service area for these facilities.

Summary of Survey Results

The following chart provides a quick summary of the community facilities in the Chapter. The chart shows basic information about the current facility, the service area and what the anticipated future needs are.

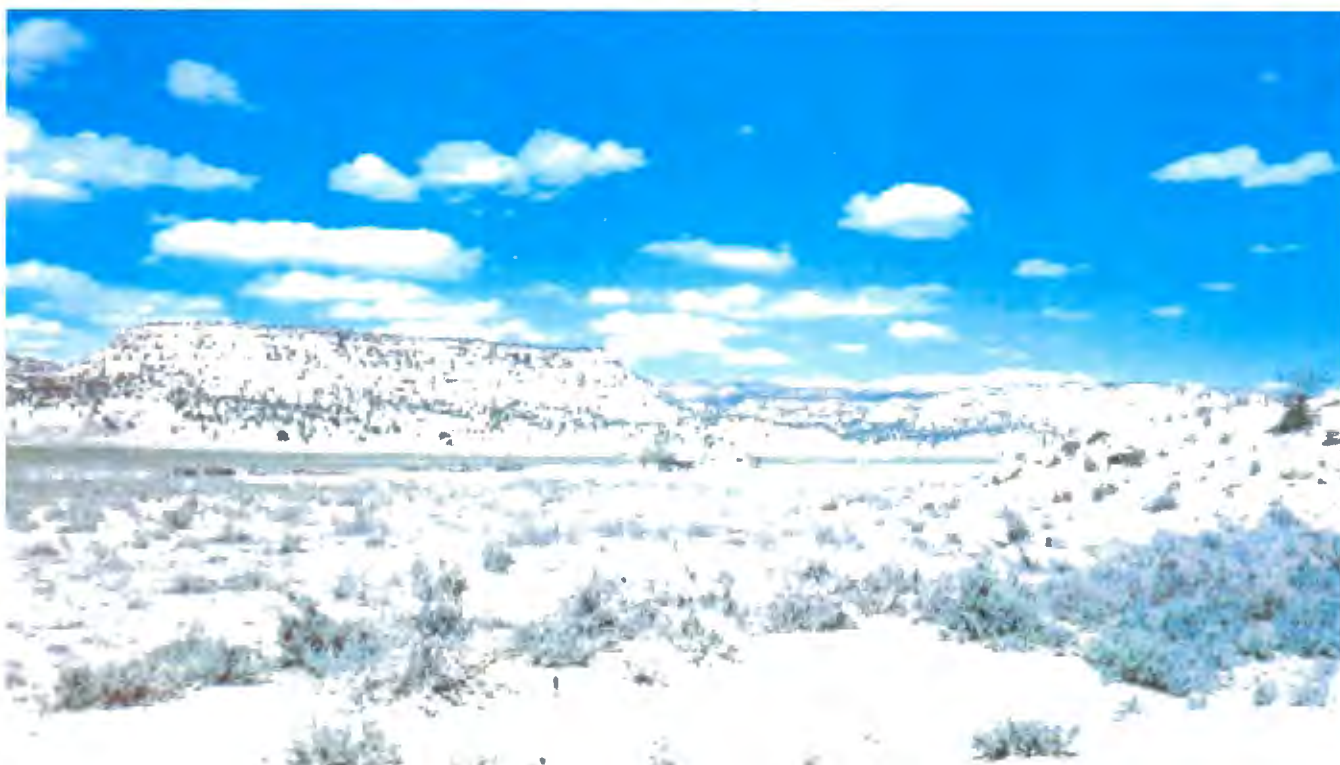
Summary of Community Facilities Piñon Chapter

2017

<i>Facility/Service</i>	<i>Current</i>	<i>Future Needs</i>	<i>Service Area & Notes</i>
Senior Citizens Center	2,461 sf. in Piñon	Need to increase size of facility for anticipated growth in 5 yrs and 10 yrs. Expand current facility at Chapter compound. Alternative: new facility with assisted living	Navajo Nation
NN WIC Nutrition Program	2,754 sf. trailer, 9 rooms.	Needs: pave parking lot, may move to new health center.	Navajo Nation
Navajo Housing Authority	2,615 sf new bldg on 7 acres	Needs: offices ok, anticipate need for 74 new homes over next 10 years.	Navajo Nation
General Assistance Social Services	2,573 sf trailer	Needs: pave parking lot, need to expand programs over 10 yrs with population growth	Navajo Nation
Piñon Post Office	2,139 sf facility	Need: expand facility for more mail boxes and services	Piñon, Whippoorwill, Blue Gap, and Forest Lake Black Mesa, Hardrock Chapters
Piñon Unified School District	3 main facilities on 35 acres	Need: student population to grow over 10 yrs, expand classrooms and auditorium.	Dzil Yi Jiin Region
Piñon Community School	117,809 sf in 10 facilities and teacher housing on 18 acres	Need: only slight growth anticipated over 10 yrs, no new facilities	Dzil Yi Jiin Region. The school has a master plan for future growth.
Piñon Chapter House	3,831 square feet	Need: To expand services	Piñon Chapter
Head Start	The existing facility is located at the Piñon Unified School District complex.	Needs: To expand the day care options to provide more spaces and spaces for working parents.	Piñon and adjacent Chapters. An expanded facility is in the planning stages.
Needed Facilities		Inter-agency Multipurpose Building	
		Community College Campus	
		Work Force Housing	
		Community Youth Center	
		Police and Justice Center	
		Public Library	
		Bed and Breakfast	

COMMUNITY FACILITIES LAND USE MAP

The map on the next page shows the location of existing and proposed community facilities and the location of existing and proposed public utilities.



White Valley

Our Grandfathers had no idea of living in any other country except our own and I do not think it is right for us to do so as we were never taught to. When the Navajos were first created, four mountains and four rivers were pointed out to us, inside of which we should live, that was our country and was given to us by the first woman of the Navajo Tribe.

-- Barboncito, Bosque Redondo, May 28, 1868¹

¹ *Treaty between the United States of America and the Navajo Tribe of Indians with a record of the discussions that led to its signing*, K.C. Publications, Las Vegas, Nevada; 1968.

COMMUNITY INFRASTRUCTURE PLAN

Table of Contents

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PURPOSE

The purpose of the Infrastructure Plan is to plan for the future expansion of utility lines and service to meet current unmet needs and future growth needs. Utilities considered include:

- Domestic (potable) water,
- Agricultural and livestock water,
- Waste water,
- Electrical power,
- Natural gas, and
- Solid waste management.
- Renewable/alternative energy.

This plan will help the community make decisions regarding:

- Allocation of resources for utility extensions and maintenance,
- Location of new facilities related to utilities and buildings, and
- Planning for new building projects and community growth.

COMMUNITY PRIORITIES FOR INFRASTRUCTURE

Specific community priorities relating to infrastructure are shown below:

Water Resources:

- Increase the amount of water that seeps into the local water table through the installation of spreader dikes along the washes.
- Improve and expand existing livestock and agricultural water supply systems.
- Improve and expand the existing domestic water supply system to better serve the northwest and western portions of the Chapter area.
- Protect the Chapter's continued use and access to the Navajo Aquifer as the primary source for Chapter area domestic water.

Wastewater:

- Expand the existing system and develop strategies for serving the Piñon Kintah area to meet future growth and needs.

Stormwater, Flooding and Natural Hazards:

- Conduct a Civil Engineering study to develop recommendations for culverts and other flood control improvements.

Solid Waste:

- Expand the existing wastewater system and develop wastewater strategies for serving the Piñon Kintah area to meet future growth and needs.
- Educate Chapter residents about the importance of having and using a sanitary waste removal system.

Electrical Power:

- Expand electrical service or electrical generating capability to all residences in the Chapter area and growth.
- Create a renewable energy plan for the chapter.

Communications:

- Expand land line telephone service to other parts of the Chapter area.

INFRASTRUCTURE RESOURCES AND STRATEGIES

WATER RESOURCES AND WASTEWATER SERVICES

Accessibility to Water and Wastewater Resources

Overview of water systems available in Diné Bináhasdzo

...In 1998 there were 237 public water supply systems on the Navajo reservation with approximately 29,000 connections. The majority of these systems rely on groundwater. NTUA is the largest supplier of domestic and municipal water on the Navajo Nation and operates 93 public water systems with more than 1,300 miles of water lines, supplying more than 12,000 acre-feet of residential water and 3,300 acre-feet of commercial water per year. Assuming four people per household connection, NTUA serves approximately 96,000 people, most of whom are on the reservation...

Another 5,000 connections are provided by a variety of smaller operators. The NDWR operates 27 public water systems that are largely subsidized by Tribal General Funds and community block grants. These systems are typically smaller than the NTUA systems, are typically not metered, and generally have worse economies of scale. Consequently, they generate inadequate revenue for proper administration and maintenance. In addition to these systems, the BIA operates 56 water systems, almost all of which are associated with BIA schools and school-related housing. Approximately 50 smaller systems are operated by missions, trading posts, and private commercial operators. Assuming that half of these connections are primarily for residential users, these small operators serve approximately 10,000 people and deliver approximately 1,000 acre-feet per year.

Per capita water use on the Navajo reservation varies depending on the accessibility of the water supply. Billing data from NTUA indicates that the average water use on the NTUA systems is approximately 100 gallons per person per day. According to the data from other

metered systems by the IHS, water use on the non-NTUA systems ranges from 20 to 100 gallons per person per day.

It is estimated that the public water systems on the Navajo reservation serve approximately 110,000 people, or only 60% of the population. In a 1981 water resources report by Morrison Maierle Inc., the per capita water use for the 40% of homes without running water is estimated to be 10 gallons per day... These water haulers create additional demands on the public water systems that maintain public water taps. A 1993 Northwest Economic Associates study evaluated the cost of water hauling on the reservation. The study concluded that families that haul water for domestic purposes spend the equivalent of \$22,000 per acre-foot compared with \$600 per acre-foot for a typical suburban water user in this region.

Historic data demonstrates that water use for non-Indian communities have generally increased over time and is presently about 206 gallons per capita per day in Arizona. This rate compares to a current average per capita use on the reservation between 10 – 100 gallons per day. This disparity in per capita water use can be directly correlated to the lack of community development and the difference in the economic standard of living comparable with neighboring non-Indian communities. ...

In addition to residential water, NTUA provides approximately 3,300 acre-feet of water to more than 200 commercial users, the non-NTUA systems provide more than 500 acre-feet, and NAPI uses approximately 2,000 acre-feet for food processing. The smaller commercial and industrial water users support critical services and contribute jobs and economic opportunities on the reservation.²

The importance of livestock to the Navajo Nation cannot be overstated. In spite of droughts, harsh winters and fluctuating prices, raising livestock has historically been one of the few economic enterprises which has been successfully managed in the reservation environment...

The water for an estimated 300,000 permitted animal units comes primarily from shallow windmill-powered wells and rain-fed stock ponds. The NDWR Operation and Maintenance Branch is responsible for the maintenance of approximately 900 windmills throughout the reservation. In 1993, the NDWR estimated that the water supply for livestock from the windmill powered wells was 865 acre-feet per year.

The Little Colorado River 1994 amended claim filed by the Federal Government on behalf of the Navajo Nation identified 2,422 stock-ponds in the Little Colorado Basin with an estimated water use of

² *Water Resource Development Strategy for the Navajo Nation*, The Navajo Nation Department of Water Resources; July 17, 2000. pp 25 - 28

21,000 acre feet. Assuming that the entire reservation has a similar density of stock-ponds, there are approximately 7,500 Navajo stock-ponds. These water sources are the first to be impacted during drought.

The Navajo Department of Agriculture recently estimated that the range is overstocked by approximately 50%. Overstocking adversely impacts water quality and supply, increases erosion and can lead to a desertification of Navajo lands. Attempts to improve livestock water supplies should place a high priority on local participation on the limits of the range to sustain them.³

The Navajo Nation hosts a variety of industrial and mining water users, all of which require a reliable water supply. A report from the Auditor General identifies mining as the single most important revenue generating source on the reservation, often producing 75% of the total annual general tribal revenues. Regionally, the largest water users are coal mining, oil recovery and power generation, which use a combined total of approximately 158,000 acre-feet of water annually...

Water is essential for mining on the Navajo reservation. Over the last five years, mining revenues have generated, on average, approximately \$56 million, or 55 percent, of the Navajo Nation's general revenues. In recent years, mining revenue exceeded \$60 million. Coal mining generates approximately 10% of the annual employment on the Navajo Nation. However, coal revenues are on the decline, having dropped about 30% since 1996....

Peabody Western Coal Company (PWCC) is the largest mining water user on the reservation. The primary source for PWCC water is the N-Aquifer. The largest PWCC water use is a slurry line from the Peabody Mine at Black Mesa to the Mohave Generating Station near Laughlin, Nevada. Additional water is used for dust control, construction, coal washing, reclamation, drinking, sanitation and sediment ponds. From 1969 to 1993, the average annual water use for PWCC was 3,543 acre-feet. In 1993, PWCC used 3,704 acre-feet of water, which was 56% of the total withdrawal from the N-Aquifer. PWCC also uses more than 100 surface water impoundments located on the PWCC lease.⁴

Most of the scattered rural houses on the reservation have either septic systems or pit latrines. For clustered housing, NTUA provides waste water treatment. Most of the NTUA systems have aerated sewage lagoons for water treatment. HKM & Associates estimated that the average cost to provide sewerage is \$13,000 per household plus engineering and contingency costs.

Overview of wastewater systems available in Diné Bináhasdzo

Overview of the status of the Navajo Aquifer

³ Ibid. pp. 35

⁴ Ibid. pp. 35 – 38.

Use of water from the Navajo (“N”) Aquifer has been in the news during the recent past. The N Aquifer is the source of water used for the NTUA water system and is the best quality water available for domestic use within the Chapter Area.

However, Peabody Coal Mine is the primary user of N Aquifer water. They use the water for mining operations and to create the coal slurry which is sent by pipes to electrical generating plants in Page, Arizona and Laughlin, Nevada. The coal mine operations uses more than 4,000 acre-feet or 1.3 billion gallons of water each year and there is concern that this level of use is creating a “drawdown⁵” of the N Aquifer. Water levels have decreased by 100 feet or more in some wells and discharge from springs along Black Mesa have been reduced by 50% or more. There is also a concern that due to the type of pumping being used by the Peabody Mine operations, water from the Dakota (“D”) Aquifer has leaked into the N Aquifer. D Aquifer water is of poor quality and has been contaminated by naturally occurring pockets of uranium. It is generally not used for human consumption.

Local communities in the Black Mesa region currently consume about 3,000 acre feet of N-Aquifer water each year – 1500 acre feet from the aquifer’s confined portion – but planned improvements to infrastructure combined with population growth...may mean a substantial increase in demand. For subsistence alone, the tribes’ [Navajo and Hopi] collective use of groundwater could top 6,000 acre feet by 2010, and commercial development will only add to the burden.⁶

Peabody Coal Mine has until 2005 to find an alternative method for transporting the coal. Among the water using alternatives being considered are:

- Construction of a pipeline from Lake Powell to draw water from the Colorado River. The water from this pipeline would be shared with Tribal communities. The pipeline would deliver about 8,000 acre-feet of water, an amount of water that would hardly meet the future needs of the Tribal communities. In addition, this proposal is being met with strong opposition from environmental groups.
- Use of water from the Coconino (“C”) Aquifer for mine operation uses. Although this aquifer is vast and is not used by communities on Black Mesa, it is an essential water source for other communities in Diné Bináhasdzo including the relatively

⁵ A decrease in the water level of an aquifer or well as the result of pumping.

⁶ *DRAWDOWN: Groundwater Mining on Black Mesa*, David Beckman, et. al., Natural Resources Defense Council; October 2000. pp. 28.

nearby communities in the Chinle and Lukachukai Valleys and Ganado. For many of these Chapters the C-Aquifer is the only source of water available aside from surface water and shallow alluvial aquifers. Thus it is the only source of reliable, permanent water supply. Heavy pumping of water from this aquifer may impact the water availability for communities along the edges of the aquifer.

- Use treated wastewater from the Tuba City wastewater plant.

Probably the best alternative is to look at other means of transporting the coal that do not require the use of water.

It should also be noted that two new power plants are being proposed for the Kayenta area. These plants will probably use water cooling systems which will result in more use of scarce water resources for industrial users.

The report, *DRAWDOWN: Groundwater Mining on Black Mesa*, produced by the Natural Resources Defense Council provides an excellent discussion of the hydrology and issues surrounding the use of N-Aquifer water. A copy of this report is included in the Addenda section of this report.

*Water and Wastewater
Availability in Piñon
Chapter Area*

Domestic water is provided by NTUA to residences and businesses in the Piñon Kintah area and to some residences in the southeastern section of the Chapter area.

Other residents in the Chapter area depend on artesian wells and water hauling to provide for their domestic and livestock water needs.

Wastewater treatment is available in the areas where domestic water is available. NTUA has wastewater lagoons on the southwest side of Piñon Kintah and the Piñon Unified School District has created constructed wetlands to treat wastewater from the High School facility.

**Water Resource
Strategies**

Domestic and commercial/industrial water supply continues to be a problem in the chapter area. The Navajo Department of Water Resources is in the process of creating an action plan to expand the water supply system across Diné Bináhasdzo. However, Piñon is among the 40% of the Chapters which will not be served by plans for larger regional water supply projects.

The Navajo Department of Water Resources reported the following deficiencies to the water supply system:

- The public water supply in rural areas does not meet the demand. Approximately 40% (or 4 out of every 10) of the families living on

the reservation depend on water hauling for their residential and livestock water supply.

- In 1999, IHS estimated that the cost of deficiencies was \$297 million for water systems, \$73 million for sewer and \$12 million in solid waste systems. The annual IHS budget is \$25 million a year, this results in a 20 year backlog on water and wastewater projects.
- The NTUA water systems face critical economic problems. For many NTUA systems there are many miles of pipelines, but few connections per mile. On some of these water systems the operating costs exceeds the system revenue and it generally costs NTUA more to deliver water than similar non-Indian water companies spend. These higher costs do not allow NTUA to set aside funds for the future, so funding may not be available in the future when the existing systems need to be replaced.
- The population has very limited economic resources and therefore it is not possible to depend on the population to fund capital investments in the water and wastewater systems through user repayment programs.
- The population on the reservation is very widely dispersed. This means that there are long distances between water sources and water users and this adds to the cost of providing services.

The *Water Resources Development Strategy*, states that the overall nation-wide strategy will have five parts:

1. Establish a water resource development task force, which will coordinate technical and fiscal resources of the Navajo Nation and Federal agencies,
2. Prepare a reservation-wide needs assessment and prioritize water projects,
3. Develop regional water supply projects,
4. Develop and rehabilitate local water supply and distribution systems,
5. Complete NIIP and continue to address deficiencies in water storage facilities.

The *Water Resources Development Strategy* for Chapters like Piñon will be:

- Provide for domestic and municipal needs served by local systems not connected to the proposed regional systems;
- Improve water service to families not connected to water systems;
- Rehabilitate and/or build new domestic water systems using local water supply systems;
- Improve local livestock and irrigation water systems;
- Upgrade and/or construct more community wells to provide for both water systems and water haulers; and

- Optimize water conservation and wastewater reuse. This effort will include evaluating fee structures to ensure adequate operation and maintenance.

Future Navajo communities will need to make every reasonable effort to maximize the water supply. A commitment to water conservation and water reuse is essential. The opportunity for water conservation needs to be more fully explored. However, per capita water use rates on the reservation are already among the lowest in the region. Water conservation among the Navajo people who have virtually no irrigated lawns and very few indoor amenities such as dish washers and clothes washing machines is virtually meaningless. Significant cost effective, water conservation opportunities may not be available due to the already low use.

The Navajo Nation and Reclamation are investigating water reuse opportunities. Reclamation is investigating the use of sewage lagoon water for irrigation at Ganado and for a wetland in Piñon...the Navajo Mountain Chapter is interested in incorporating water reuse for its new high school.⁷

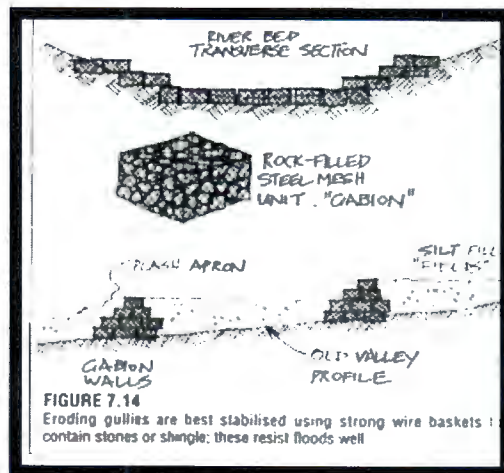
In addition to the water resource strategy outlined above, the Consultant recommends that the Chapter also consider adopting the following strategies:

- A. Provide training to Chapter residents to encourage the use of “water harvesting” techniques for domestic, agriculture and livestock use. Some of the types of techniques that can be used include:
 - Collect rainwater and snowmelt from roof of home or building. This can be as simple as putting out barrels to collect water, to connecting roof gutters to storage barrels or water cisterns. Roof water can also be directed towards planting areas near the house using little trenches called “swales” or gravel troughs along the drip line of the roof to collect water and help distribute it into the ground.
 - Dig swales parallel to the slope of the land to help slow down run off during rainstorms. These swales can be used to direct the water towards planting areas and live stock ponds and also help to collect and send the water back into the earth.
- B. Provide training to residents and sponsor earthwork project for water conservation and storage. These projects would be designed to slow down erosion, restore washes and streambeds to a more

⁷ Ibid. pp. 48

natural state, and help with grazing land restoration. Types of projects that could be done:

- Build additional earth-dams along the major washes. These might be in the form of contour dams and would have the purposes of storing run-off water for stock ponds, to reduce the amount of run-off and flash flooding, to reduce the amount of soil carried away during a storm, to reduce the erosion and deepening of the washes and to increase the amount of water that is returned to the water table.



Construction of gabions⁸

- Where the major washes have become very deep and earth-dams are not feasible and for smaller washes, build dams made out of rock-filled steel mesh. These are called “gabions”. They are placed across the wash area and built up to slow down and contain some, but not all, of the water flowing down the wash. The gabion is semi-porous so that the water is slowed down enough so that silt can fall out of the water and some of the water can soak into the ground.
- Earth-dams can be combined with swales and other diversion drains to help irrigate the land around the dam.
- Ideally, a whole system of earth-dams, gabions, swales and diversion drains would be created along the major and minor washes to help capture the rain and snow water and use it replenish the ground water and to help irrigate the land.

⁸ *Permaculture, A Designer's Manual*, Bill Mollison, Tagari Publications, Tyalgum, Australia; 1988. p. 160.



Gabion built at Assayi Lake, Mexican Springs Chapter

- C. Contact the Navajo Department of Water Resources for technical assistance in planning and implementing a water/land restoration project for the Chapter. The Department has funds to help chapters with this type of project and the staff is very interested in getting more projects going on the reservation.
- D. Make an inventory of the existing livestock wells and the condition of these wells. Make arrangements through the Chapter or through the Navajo Department of Water Resources to:
 - Fix broken wells; and windmills.
 - Assess the need to re-drill wells that dry up in the summer to go deeper into a different aquifer; and
 - Determine if more wells are needed and where they should be located.
- E. Recommended water system strategies:
 - Water pressure is not adequate in the Piñon Kintah. In particular, the Piñon Unified School District campus does not

Other Water Supply System Strategies

have adequate water pressure. The Chapter should request that the Navajo Tribal Utility Authority conduct an assessment of the water pressure and develop strategies for improving the situation.

- The amount of water available in the Piñon Kintah for fire suppression systems is not adequate. The CLUPC is recommending that the Fire Flow Project be revitalized and that the Chapter develop plans to increase the number of water tanks available for the fire suppression systems.

F. Recommended wastewater strategies include:

- Expand the Piñon wastewater lagoon treatment system by one cell to increase the system's capacity to meet short term growth needs.
- Consider the use of "constructed wetlands" instead of sewage lagoons as a means of treating waste-water from homes and buildings. Constructed wetlands are a series of three to four lined ponds that are planted with reeds and other marsh type plants. The waste water can either move through a septic tank to allow the solid matter to separate from the water (which means that the septic tank has to be pumped out every now and then) or send all of the wastewater into the first pond. As the water moves through the pond the natural biological processes at the root level of the plants (plants, micro-organisms and other life forms) cleans the water of the waste materials and bacteria. The ponds need to be located so that the water flows down and may even have small waterfalls. By the time the water reaches the third or fourth pond it is clean and mostly free of bacteria. The water can then be used for livestock, farming or go through a final disinfecting process and re-used for domestic purposes.
- Residential clusters outside of the Piñon Kintah should be required to install pre-engineered aerobic wastewater treatment systems (ATU's) to serve the housing clusters. These small, onsite, self-contained, wastewater treatment systems are commercially available to serve the wastewater treatment needs of buildings and residences that cannot be easily served by centralized waste water systems. These systems can provide wastewater treatment levels equivalent to the level provided by municipal biological treatment facilities. One advantage of these systems is that the treated wastewater can be re-injected into the ground without the risk of contaminating well water or in-stream flow the way a septic system or a sewage pond can.

Some additional information regarding these systems is included in the Addenda section of the Comprehensive Plan.

- The Environmental Health/EPA and NTUA should conduct workshops for Chapter residents on wastewater and septic system problems and hold educational programs on the benefits and use of the pre-engineered aerobic wastewater treatment systems.
- As the Chapter grows, septic systems should be carefully monitored and placed so that leakage and water from the leach fields does not contaminate the wells. This has been a major problem in rural areas that experience growth. Ground water is the only major source of water available in the Piñon Chapter area. Every care should be taken to make certain that it does not become polluted with nitrates, bacteria or other pollutants.

SOLID WASTE DISPOSAL

Accessibility to Sanitary Solid Waste Disposal

At this time the Chapter's solid waste disposal system does not appear to be functioning as well as it could. As a result there are many illegal trash dumping sites scattered around the chapter area.

The Chapter has a solid waste transfer station. The Piñon Unified School System and the Chapter have a contract with a national company, Waste Management Inc., to haul trash to a landfill off the Reservation on a weekly basis.

The community's current solid waste system needs to be evaluated and revised to provide more convenient trash removal for the residents. A strong public education program may also be needed to make the new system work well.

Solid Waste Strategies

The Chapter needs to have a well maintained and functioning solid waste collection and distribution system. The system has to be convenient enough for residents to use so that it is more attractive than continuing to use the illegal dumping sites. Strategies that have been discussed by the CLUP committee include:

- Conduct discussions with other nearby Chapters to see if a coordinated solid waste disposal system can be developed that will serve the general area. This will help address problems of residents from one Chapter who may find it convenient to use illegal dumps in another chapter area. It is also a strategy that will allow for more options as a combination of Chapters may be able to finance a better system.

- The Chapter also needs to create a public outreach and education program for its residents on the public health aspects and benefits of using the Chapter's solid waste system. The goal of this program will be to increase resident use of the system and decrease illegal dumping.
- Future plan is to bring in a recycling program for the Pinon community to recycle their items.

ELECTRICAL SERVICE

Accessibility to Electrical Service

The Chapter area currently receives electrical service from the Navajo Tribal Utility Authority (NTUA). Most of the homes and all of the community facilities and business buildings receive electrical power. Homes receiving electrical power are located within the Piñon Kintah and along primary roads.

Electrical service to the Chapter area is currently 60KV. There is some concern that this level of service will not be adequate to serve Piñon's growth. Currently, 150KV has been installed with a substation in Pinon.

Electrical Service Extension Strategies

For existing homes without electrical service, the CLUPC is recommending the use of alternative sources of electrical power such as solar panel systems, generators or fuel cells. (See below for a description of alternative sources of electricity.) Use of these systems will provide residents with electrical service sooner and at less cost than waiting for NTUA to schedule the extension of existing power lines.

The CLUPC is also recommending that in the future, larger projects such as housing sub-divisions or the expansion of community facilities either consider the use of fuel cells for individual buildings or the use of micro-turbine generators for clusters of buildings. The use of these technologies will allow projects to be built sooner without waiting for electrical service availability, will reduce the long term cost of electrical service and provides non-polluting sources of energy.

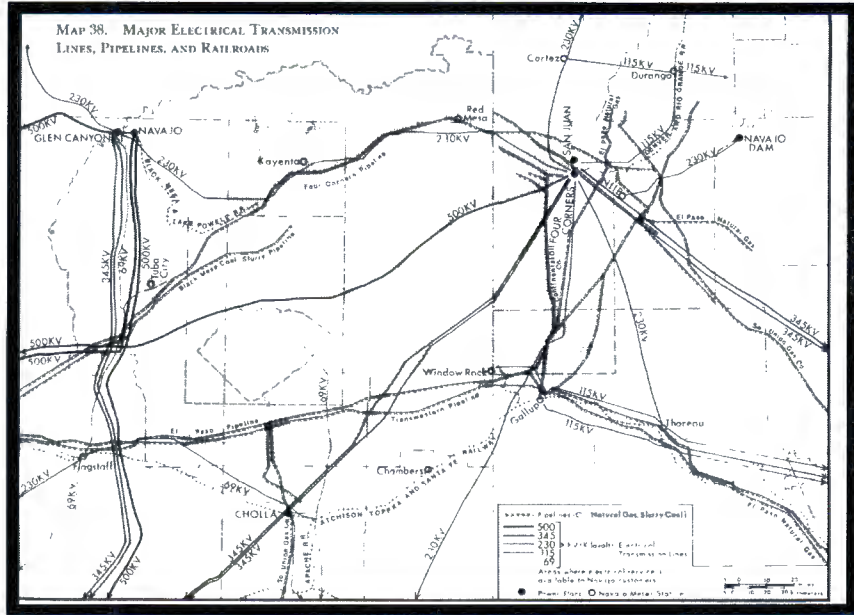
Solar Panels

The solar electrical generating systems are greatly improved from when they were first commercially available in the 1970's. The system uses panels which contain silicon crystals that turn the energy coming from the sun into electricity. Very thin and flexible solar collectors are now available and are even available as roofing shingles. Solar panels manufactured from the mid-1980's on are very durable and rarely need maintenance or replacement.

Homes using solar panels can either use DC (direct current power) or AC (alternating current power). In DC systems, the

electrical power from the solar cells goes to a storage battery and then to the power outlet. In an AC system the electrical power from the solar cells goes through an alternator before it goes to the power outlet. AC is the type of electricity used mostly in the United States.

Alternative Sources of Electricity Generation



Major electrical transmission lines, pipelines and railroads on the Navajo Reservation⁹

The CLUPC is also recommending that the Chapter research the most economical alternative electrical generating systems for Piñon. As part of this research, the CLUPC is recommending that companies providing consulting and/or installation of alternative systems be contacted regarding conducting workshops in Piñon so that Chapter Officials and community members can receive some additional education on how these systems work.

COMMUNICATION SYSTEMS

Availability of Communications Systems

Landline telephone service and satellite internet is provided by Frontier Communications. Service is very limited in the chapter area in both the number of residences and buildings being served and in the types of services being offered.

Cellular One and NTUA has a transmission tower in the Pinon area. Cellular phone and internet services off of these towers by: Cellular One, NTUA, and AT&T.

⁹ *The Navajo Atlas*, James M. Goodman, University of Oklahoma Press, Norman; 1971. p. 78.

Communication Strategies

Radio wave coverage has the same problems that the cellular phone systems have. The chapter area is able to receive stations primarily from the Northern Arizona area. *Chapter Images* lists KNAZ and KAFF in Flagstaff, Arizona; and KTNN in Window Rock, Arizona as stations received in the area. The report also says that the Chapter has regular television reception.

The chapter area has access to two newspapers: *The Gallup Independent* in Gallup, New Mexico and the *Navajo Times* in Window Rock, Arizona.

One of the community's objectives is to have service extended into the Burnt Corn Wash and White Valley areas and to improve access to emergency response numbers. ~~There has been some discussion about the addition of a new wireless communications tower in the area.~~

The community would also like to see a more competitive telecommunications environment serving the Chapter area. The Chapter would like to encourage the Navajo Nation to open up franchises for more companies such as AT&T and Sprint. The Chapter has also discussed Chapter based satellite systems and extension of the Chapter's internet service to businesses and residents within the Piñon kin tah.

INFRASTRUCTURE PLAN

A proposed infrastructure plan for Piñon Chapter is shown on the Infrastructure Plan Map in the Map section of the Comprehensive Plan.

Pinon Chapter's 2014 Infrastructure Capital Improvement Plan (ICIP) adopted the following community projects as its priorities:

1. Dzilyiijiin Judicial and Public Safety Complex
2. Inter-Agency Multi-Purpose Building
3. Local Roads
4. Utilities Expansion
5. Housing – Navajo Housing Authority & Workforce Housing
6. Demolition of old Chapter House building
7. Senior Center
8. Rural Addressing