

Land Use Plan for the Churchrock Chapter

Final Report

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Architectural Research Consultants, Incorporated
In association with:
Churchrock Chapter Comprehensive Land Use Planning Committee

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This section explores:

- Chapter planning initiative
- Local Governance Act (LGA)
- NAHASDA
- Chapter land use planning process.

The purpose of the Churchrock Land Use Plan is to provide guidance for housing development.

The plan is an initiative of the Local Governance Act and was funded by a grant from NAHASDA.

The Local Governance Act (LGA) grants Chapters authority over local issues relating to economic development, taxation and revenue generation, infrastructure development, and land use planning.

1.0 Purpose of Chapter Planning Initiative

The purpose of the Land Use Plan is to provide a guide for future housing and other development in the Churchrock Chapter. This document will provide long-range guidance to the Churchrock Chapter through the identification of the most suitable sites for housing development, as well as sites for other community needs. The recommendations provided by this document are based on careful assessments of the housing, community development, and facility needs of the Chapter; infrastructure capabilities and needs; and the suitability of the sites for development. The document is intended to function as a working resource for the Chapter's Land Use Planning Committee in its efforts to plan effectively and appropriately for the future. While future development of housing and commercial activities should comply with the recommendations of the plan, the nature of this document is one of flexibility and adaptability to local and regional changes.

The development of the Churchrock Chapter Land Use Plan is driven by the Local Governance Act, which sets forth a process by which, through the development of a land use plan, local chapters are given authority to administer their land, and by the 1996 Native American Housing and Self Determination Act (NAHASDA), which has provided the funding for the plan.

1.1 Local Governance Act

The 1998 Navajo Nation Local Governance Act (LGA) grants chapters authority over local issues relating to economic development, taxation and revenue generation, infrastructure development, and land use planning. By assisting chapters in becoming self-governing entities, the LGA creates opportunities for the improvement of the chapter members' quality of life by:

- developing opportunities for economic development
- conserving natural resources and preserving Navajo heritage and culture
- ensuring government accountability
- creating an atmosphere of experimentation and learning
- developing experienced, professional administrators.

The LGA requires that chapters adopt the "Five Management System" of public administration, and develop a comprehensive, community-based land use plan.

The LGA sets forth a process by which local chapters are granted power over local issues. As part of this process chapters must adopt a *Five Management System* which sets up policies and procedures for chapter administration of 1) personnel, 2) property, 3) procurement, 4) accounting, and 5) record keeping.

Chapters must also develop and adopt a comprehensive, community-based land use plan which provides local chapters the tools to administer their land. This comprehensive plan, according to the LGA, section 2004 (B), is based on "the guiding principles and vision as articulated by the community; along with information revealed in inventories and assessments of the natural, cultural, human resources, and community infrastructure." The LGA also states that such a plan shall include "a land use plan which projects future community needs, shown by location and extent, [and] areas to be used for residential, commercial, industrial and public purposes." While the main intention of this planning document is to develop a land use plan specific to housing, the information presented in this plan will also provide technical and informational support to the Churchrock Chapter in the development of their comprehensive land use plan.

NAHASDA has provided funding to the Navajo Nation for the development of Chapter land use plans for housing. It is the intention of NAHASDA to support Indian self-determination and tribal self-governance.

1.2 NAHASDA

The Native American Housing Assistance and Self-Determination Act of 1996 (NAHASDA) has provided the funding for this planning effort. NAHASDA provided money to the Navajo Nation for 3 years to fund 90 Chapter land use plans. One additional year of funding is anticipated.

NAHASDA reorganized the system of federal housing assistance for Native Americans. It replaced several housing assistance programs with one block grant program that recognizes the right of Indian self-determination and tribal self-governance. The guiding principles of NAHASDA state that public housing programs modeled for urban America should not be forced on Native America, and that local communities should be financially assisted in developing private housing and capital opportunities, so that they may have the flexibility to devise local solutions for local problems.

There are four phases involved in this chapter planning process:

- *Community Participation Plan*
- *Community Assessment*
- *Suitability Analysis*
- *Infrastructure Analysis*

While the focus of this plan is on housing, the plan also identifies and addresses community issues that affect housing development, such as economic development and community service needs.

1.3 Chapter Planning Process

There are four phases involved in this chapter planning process, all culminating in a final Chapter Land Use Plan (Exhibit 1).

The first phase is the development of a community participation plan. The community participation plan specifies the plan of operation, frequency and manner of committee meetings, and the methods to be used to educate and involve community members in the planning process.

The second phase involves a community assessment. The community assessment will assess individual chapter community needs such as housing, economic development and community facilities.

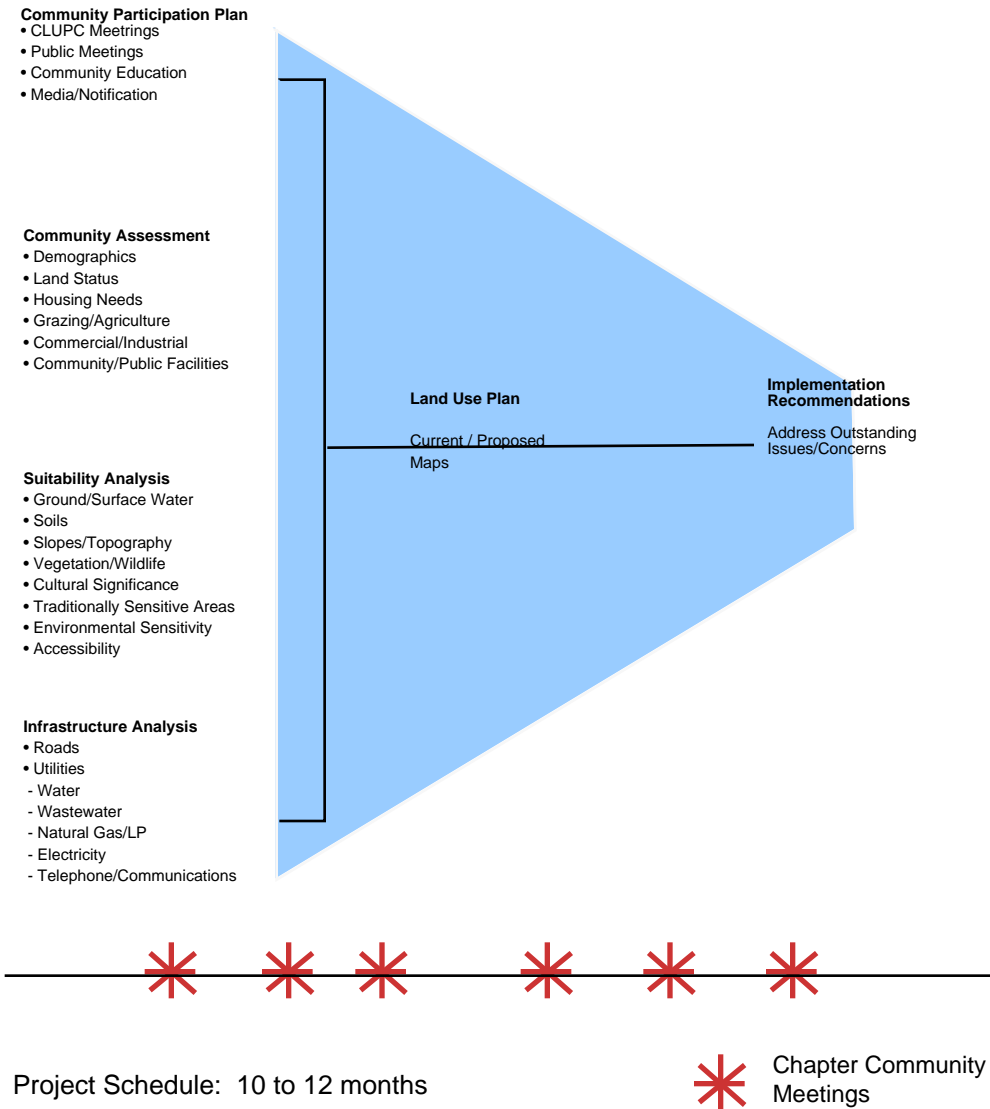
The third phase of the planning process includes a suitability analysis. The suitability analysis examines the natural and cultural resources and environmental constraints affecting development, general to the Chapter and specific to sites under consideration for housing construction.

The fourth phase includes an infrastructure analysis. The infrastructure analysis will consider transportation and utilities needed for development to occur on specific housing sites under consideration for housing construction.

The final product will be a Chapter Plan that identifies the most suitable housing development sites, as well as sites for other community needs.

Exhibit 1: Planning Process

**Typical Planning Process
for Individual Chapters**



B. Community Assessment

The Community Assessment section addresses the following topics:

- *Chapter Background*
- *Socio-economic Trends*
- *Housing Needs*
- *Land Status*
- *Grazing Uses*
- *Commercial/Industrial Uses*
- *Community Facilities*

The Community Assessment Section provides background information on the Churchrock community; an analysis of socio-economic trends; a summary of land status; descriptions of the community's conditions and needs related to housing, grazing and agriculture, commercial and industrial development, and community facilities; a discussion of community issues; and a list of community goals.

The community assessment incorporates information from a survey conducted during the Summer of 2001. ARC surveyed Churchrock Chapter members to gain information about Chapter members, their lives and living conditions, and their opinions on what is needed to improve the quality of life in Churchrock. One-hundred forty-seven surveys were completed and analyzed. This number reflects approximately 20% of the Chapter's households as reported in the 2000 Census, which lists 725 occupied year-round houses. Information from the survey is interspersed throughout the community assessment and is also contained in Section C, the infrastructure analysis.

1.0 Chapter Background

This section provides background material on the Churchrock community, including information on its location, history, government and leadership, relationship to Fort Wingate, environmental issues, education, health care, and fun, games, and sports. Section 1.9, Community Vision, summarizes the results of the "visioning" process in which community members were asked to describe what makes Churchrock Chapter unique, what they would like to preserve in the Chapter, what they would like to change, and what they would like the Chapter to be like in twenty years.

1.1 Location

The Churchrock Chapter is situated east and southeast of the City of Gallup in McKinley County in the northwest quadrant of New Mexico. The Chapter is divided into southern and northern portions by the Rio Puerco Valley, the Old Santa Fe Trail, remnants of Old Highway 66, the Burlington-Santa Fe Railroad, and Interstate Highway 40.

The Churchrock Chapter was officially certified as a chapter by the Navajo Nation on December 5, 1955.

1.2 History

Churchrock has been greatly influenced by its history and geology. Archaeological studies show the Churchrock area was occupied by Archaic people in 3000 B.C., the Basketmaker people in 300 A.D., the Anasazi between 1000 and 1100 A.D., and Apache and Navajo ancestors by 1500 A.D.

After the Navajos settled in the Four Corners area, they had positive contacts with the Pueblo and Spanish peoples. These contacts resulted in intermarriage and development of livestock industries and arts and crafts, such as weaving and jewelry making.

United States Troops led by General Stephen Kearney took possession of New Mexico from Mexico in 1846. Fort Defiance was also established in 1846, to help keep peace with Navajos. Fort Fauntleroy, established in 1851, was renamed Fort Lyons in 1861, and renamed again as Fort Wingate in 1863.

Hostilities between tribes and the United States, including raids on white wagon trains and settlements, continued. Colonel Kit Carson retaliated against the Navajos with his "scorched earth" campaign in 1863. He camped at Kit Carson's Cave, which is about 4 miles north of the junction of Highway 66 and New Mexico Road 566. In 1864, the Navajos were rounded-up and interned at Fort Sumner.

The Treaty of 1868 recognized the Navajos' permanent homeland and established the reservation system with the federal trust responsibility for the land and its resources. It also established compulsory education for the Navajos and set the stage for various land, natural resource and social programs that later evolved (Note: Fort Wingate was later used for these social programs, as a hospital and Indian boarding school).

As hostilities ended, westward expansion moved through the

area along the Santa Fe Trail and the railroad. The expansion brought logging and mining industries into the area. The City of Gallup began as a coal mining town. Logging forced Navajos off the McGaffey area of the Zuni Mountains.

Charles Leslie Frederick, who ran a freight business, built the Outlaw Trading Post in 1888 in what is now Red Rock State Park. Other traders in the area included the Springsteads and the Carsons.

World War II took many young Navajos into all branches of the armed forces. Some became Navajo Code Talkers in the U.S. Marine Corps. The war also led to the development of Wingate Army Depot within the Chapter. This created local jobs. The Indian Village housing was built for the Depot employees and became home to many outsiders from across the Navajo Nation. They had no long-term stake in the community and created a drain on community resources. Most of them departed at the end of the War, leaving the remnants of Indian Village behind. The Depot's function has since been deactivated, and portions have been decontaminated and returned to the Navajo Nation.

Geology:

The spectacular red rock geologic formations seen around the Red Rock State Park are from the Jurassic Period, the Quaternary and Triassic eras. The Westwater Canyon portion of the Jurassic Morrison Formation is mostly hidden underground, but is visible at the top of Navajo Church (as originally known) or Churchrock.

The Westwater Canyon also has some of the area's groundwater and most of its uranium deposits. Between 1952 and 1986, tons of ore containing uranium, vanadium, and other substances were mined in the Church Rock Chapter. High levels of toxic and radioactive wastes were discharged from underground mines into tailings ponds. On July 16, 1979, United Nuclear Mining Company had one of the largest uranium tailings spills in United States' history into a tributary of the North Fork of the Puerco River.

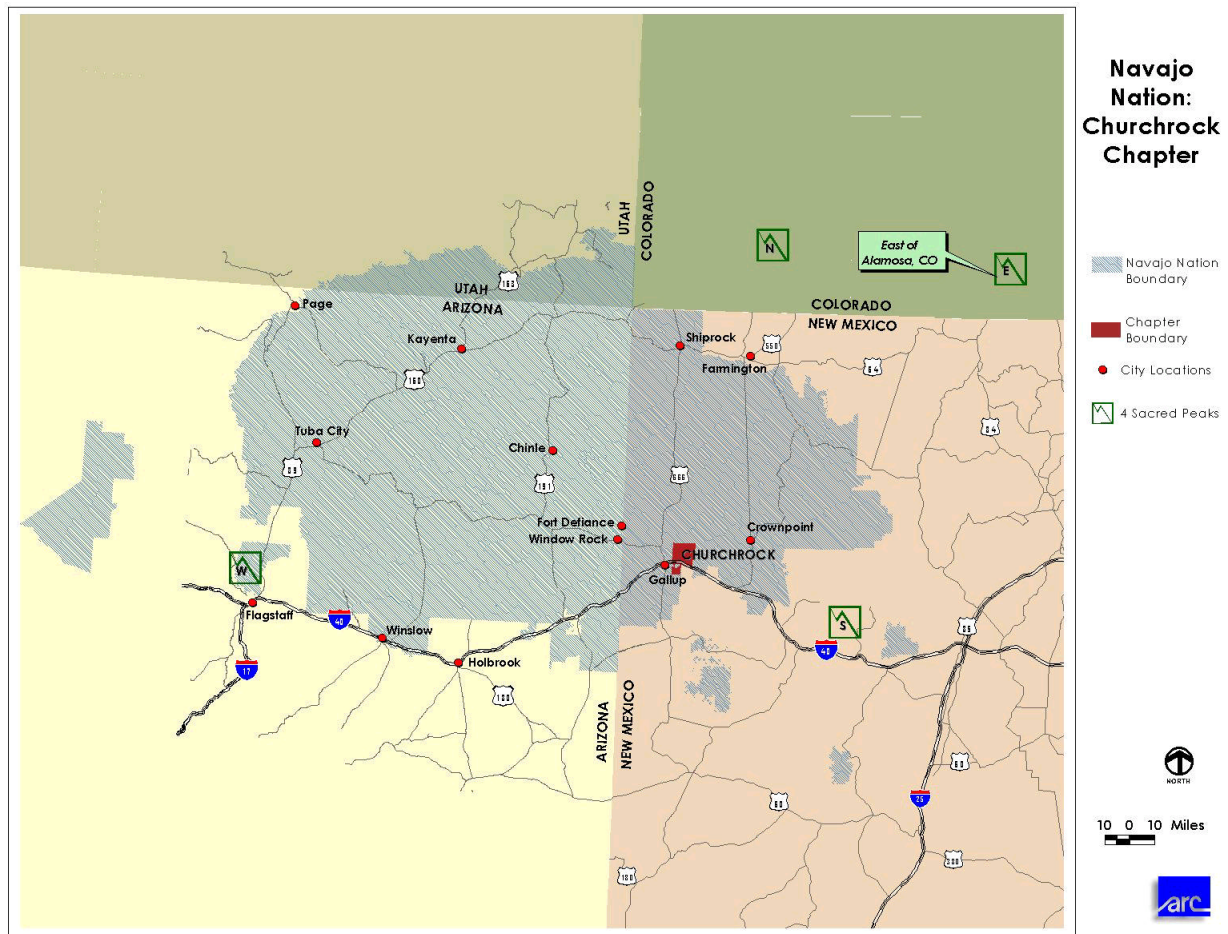
1.3 Government and Leadership

The Chapter government had a humble beginning, but always had rich traditions. Older members say the first Chapter meetings were all-day meetings held under the cottonwood tree on the north side of the Chapter warehouse. Community leaders Charley Casuse, Charley Livingston, and Willie Harrison maintained order and facilitated community development through their common-sense oratory and persuasion. Later, Ted Silversmith, Florence Whitman, Margaret Chischilly, and Julia Smith ably carried on the government's economic opportunity programs.

Churchrock Leaders

- Wilson C. Skeets, former Council Delegate and Vice President of the Navajo Nation
- Edward T. Begay, former Vice President of the Navajo Nation, Speaker of the Navajo Nation Council, and Council Delegate, Chapter officer, and New Mexico Highway Commissioner. Instrumental in government development initiatives such as the constitutional convention in the 1960s, government reform, local empowerment, tribal taxation, local governance, and contracting of federal programs
- Ernest Becenti, Sr., former Chapter President, McKinley County Commissioner. His contacts with county and state officials led to improvements in Chapter roads, including paving of State Road 566.
- Ernest Becenti, Jr., former Council Delegate
- Tom Becenti, retired Judge of the Crownpoint District Court
- Sherman Woody, former Chapter President
- Herbert Benally, former Chapter President
- Gloria Barney, former Chapter Secretary-Treasurer
- Charles S. Damon, II, Chapter President
- Dolly Pine, Chapter Vice President
- Evangeline Touchine, Chapter Secretary-Treasurer
- Charley Y. Begay, Land Board member; helped formulate the Tri-Party Agreement among the Navajo Nation, Bureau of Indian Affairs, and Bureau of Land Management. The agreement allows for land exchanges that will consolidate tribal land holdings.
- Albert Smith, Educator and Navajo Code Talker

Exhibit 2: Navajo Nation Location Map



- George Smith, Navajo Code Talker
- Anselm Davis Jr., Educator
- Ralph M. Davis, Educator
- Sisters, Shirlene Bowman-Capitan, Educator and Shirley Bowman-Begay, Cultural-Traditional Leader, Fort. Wingate High School
- Alfred Dehyia, Director of Navajo Land Administration
- Frederick Marianito, Director of Navajo Design and Engineering
- Hurley Benally, Physician Assistant, Gallup Indian Medical Center
- Jean Cometsevah, Nurse, Gallup Indian Medical Center
- Stewart Barton Jr., Coach, Fort Wingate High School
- William Livingston, former Supervisor, Heavy Equipment
- Donald Smith, Supervisor, Road Maintenance, Western Navajo

Fort Wingate Depot Area Entrance



In 1860, a military post was established at Fort Wingate. Today, Fort Wingate has been decommissioned and plans are in development for the return of the land to both the Navajo Nation and Zuni tribe.

1.4 Fort Wingate

In 1860, the U.S. government established a military post at Bear Springs to protect westward travelers. In 1868, the post was renamed Fort Wingate and became an active military training post until it was abandoned in 1910. In 1914, the fort was temporarily used as a refugee camp for Mexican immigrants. In 1918, the fort became, under the

auspices of the Ordnance Department, a warehouse for explosives. Since the 1920s, the fort has continued to serve as a military base or weapons storage, testing and demolition. During World War II, Navajo families were forced out of the area, leaving behind homesteads, hogans, livestock, personal items and family remains so that the land could be used to support the war effort.

The base covers an area of approximately 21,812 acres, of which 46% was designated for ammunition storage, demolition activities and administrative purposes. The remainder of the land was set aside for buffer/security zones and undisturbed forest.

The Defense Base Closure and Realignment Act of 1988 closed the military facilities at Fort Wingate in 1993. Since then, the base has remained under U.S. Army caretaker status. The Navajo Nation, the City of Gallup and the Zuni Tribe have attempted to negotiate with the U.S. Army for the return of the land. However, several factors, including the U.S. Army's low priority for cleanup of the site, their reluctance to relinquish the site, and the competing interests of the claimants, led to a breakdown in negotiation.

The Navajo people occupied the area long before the establishment of the base by the U.S. Army and have aboriginal claims to the lands. In 1870, by virtue of Executive Order, the land was transferred from the Navajo Nation to the U.S. Army, with the intention that this was a temporary transaction, and that the land would be returned to the Navajo Nation. A resolution by the Navajo Council, Number CMY-20-89, stating the Navajo peoples' ancestral claim and the original conditions of the land transfer, formally requests that the entire Fort Wingate be transferred back to the Navajo Nation. Churchrock, Iyanbito, and Bread Springs Chapters have also made their own claims to the land.

An economic development study for the Navajo Nation estimates that the development of the Fort Wingate area could create approximately 4,180 direct and indirect jobs. Gross lease revenue to the Navajo Nation would be between \$5.2 and \$7 million per year, and with the addition of a modest sales tax of 1%, another \$700,000 per year in revenue would be generated.

According to the 1994 report, *Navajo Nation Economic Reuse Masterplan for Fort Wingate Depot Activity*, the transfer of the base to the Navajo Nation could result in significant economic benefit to the Navajo Nation. The report determined that through the commercial and

industrial development of the land and through the expansion of 638 contracts (programs affecting the administration of the land), economic benefits would be realized by the tribe within eight years. As summarized in the 1994 report, these benefits would include:

- The creation of 1,520 direct jobs at the Fort Wingate development.
- The creation of 2,660 direct and indirect regional jobs.
- Approximately \$34 million in wages paid to workers at the Fort in the eighth year of the development program.
- Nearly \$70 million in retail/service sales generated by firms and businesses located at the Fort; nearly \$122 million in regional direct and indirect sales generated because of businesses located at the Fort.
- A demand for over 40,000 square feet of retail, commercial and industrial space during the first eight years of development at the Fort.
- Gross lease revenue to the Navajo Nation ranging between \$5.2 and \$7 million per year.
- Another \$700,000 per year in revenue generated by a modest sales tax of 1%.
- Over 600 residential homes developed in eight years for an economic value of over \$48 million to the Navajo Nation and the region.

In late 1996 and early 1997, the Navajo Nation government made a commitment to the Zuni Tribal Council to enter into an agreement to divide up the military reservation. The Zunis have an interest in the south part, or the high areas of the land area. By June 1997, the Navajo Council and the Zuni Tribe had co-signed a Memorandum of Understanding stating their joint interest and accommodation in the development of the Fort.

In early 2000, the federal government entered into final negotiations for the transfer of the Fort Wingate lands to the BIA to be held in trust for the Navajo and Zuni tribes. As of June 2000, the first phase of that transfer had begun with the transfer of the southern portion of the Fort to the BIA. According to the agreement signed by the interested parties, the BIA will offer leases for the land to the Zuni tribe and the Navajo Nation.

The Economic Reuse Master Plan identifies 21 parcels within

Fort Wingate. In June 2000, the first 15,000-acre parcel was transferred to the Navajo Nation. Another parcel is currently in the process of transfer. Subsequent parcels will be transferred over time.

This master plan report does not specifically cite any Churchrock claims to Fort Wingate, but rather discusses a general transfer to the Navajo Nation.

As of February 2002, an environmental cleanup at Fort Wingate had begun. The future uses of this property depend upon the amount of effort that is being put forward to decontaminate and rehabilitate the site.

Fort Wingate today- view from Churchrock Chapter House



1.5 Environmental Issues and History

The Churchrock Chapter has a number of significant environmental issues that are impacting the community. There are two major gas pipelines running through the Chapter, a number of contaminated uranium mine sites, an old coal mine site, and significant erosion problems.

- *Gas Pipelines* - El Paso Natural Gas pipeline was put through the Churchrock area in 1957, and is located north of Interstate-40. Another pipeline in the Chapter

is the Transwestern Pipeline that passes through the area, also north of Interstate-40. There is a right-of-way of 30 feet on either side of each pipeline. If there is to be construction where large numbers of people will be concentrated (housing for example), the minimum used for safety should be 200 to 300 feet on either side from the center of the pipeline. Two hundred-twenty feet is a standard often used, according to a spokesman for the state of New Mexico. Unfortunately, many people have built homes within this distance from the pipeline and could be in danger if an explosion occurred. A fire-break in the form of a berm or wall should be constructed to protect them from a fire if one should occur.

- *Mining*

There are nine non-operating mines within the Chapter. These include the Williams and Reynolds Mines, Amcoal Mine, Hyde Mine, Rocky Cliff Mine, Heaton Mine, Churchrock and Kerr-McGee Mines, and two unnamed smaller mines. There are also four abandoned gravel pits.

- *Uranium Mines and Waste* - There is a legacy of radioactive land in the Churchrock area from the mining operations of the late twentieth century. In 1979, a tailings dam at Churchrock burst, sending eleven-hundred tons of radioactive mill wastes and ninety-million gallons of contaminated liquid into the North Fork of the Puerco River. As it flowed through Gallup on its way through Arizona to the Colorado River, the flood left residues of radioactive uranium, thorium, radium, and polonium, as well as traces of metals such as cadmium, aluminum, magnesium, manganese, molybdenum, nickel, selenium, sodium, vanadium, zinc, iron, lead, and high concentrations of sulfates in its wake. With the exception of nuclear weapons testing, Churchrock was probably the biggest single release of radioactive poisons on American soil. The spill degraded the western Rio Puerco as a water source. It carried toxic metals readily detectable at least seventy miles downstream. The operator of the mine, Uranium Nuclear Corporation (UNC), sent crews downstream with shovels and 55 gallon drums to begin cleaning up the

contamination. According to a spokesman for the company addressing hearings on the issue held by Congressman Morris Udall of Arizona, "We have removed more than 3500 tons of potentially affected sediment from the streambed to a distance of more than 10 miles from the mill. The combination of these clean-up efforts, and natural effects, such as rain, have largely restored normal conditions to the area." There are still concerns about contamination of the North Fork and scattered locations throughout the Chapter.

New concerns are being voiced within the Churchrock Chapter. The Hydro-Resources Corporation is waging an intensive campaign to reopen the Churchrock Uranium Mine for leach mining by water injection. Strong opposition to this proposal is being led by the Eastern Navajo Dine' Against Uranium Mining (ENDAUM). The group contends that injection of recycled water back into the aquifer will contaminate the groundwater with radioactive waste. Community residents and allottees who want to lease lands for mining are divided on this issue. A resolution was passed by the Chapter urging the Navajo Nation Council to withhold approval of leach mining of uranium within the Chapter. At this time, however, it appears that approval may be granted.

Post law lands refers to lands affected by mining activity after the Surface Mining Control and Reclamation Act of 1977, and they are subject to the provisions of this act.

Pre-law lands are lands affected by mining before the Surface Mining Control and Reclamation Act of 1977 was enacted.

- *Coal Mining* - The Amcoal Mine is a surface coal mine located about eight miles southeast of Gallup in the southern end of the Churchrock Chapter. First mined in the 1930s, the 300 acre site was last mined in 1981. Reclamation of the mine land is governed by several different government acts including the Surface Mining Control and Reclamation Act of 1977 (post law lands). Lands mined before this time are subject only to reclamation provisions within the lease with the Navajo Nation and the 1972 Coal Surface Mining Act of New Mexico. Reclamation began on 67 post law lands in 1977 and was completed in 1984. Reclamation on the 233 pre law lands is currently ongoing and will be completed in

Coal mine reclamation at the Amcoal Mine

three to five years. The lease for the mine is on Tribal Trust land and once the land is reclaimed, the property will be returned for use by the Navajo Nation. The end use goal is to return the land to grazing.



Erosion in the southern end of the Chapter



- *Erosion* - Significant problems with erosion have arisen within the Churchrock Chapter. Loss of vegetation due to overgrazing results in heavy rains washing out culverts and roads. Without vegetative cover, there is nothing to hold back the soil and water. Over time, deep fissures have been cut into the terrain within the Chapter boundaries. Better livestock management, revegetation, and physical restoration methods are necessary to prevent the continued degradation of land within the Churchrock Chapter.

Additional environmental and resource problems to be addressed include loss of wildlife habitat, environmental pollution of air and water quality, illegal dumping, toxic and hazardous wastes, and pollution of streambeds and open waters. Sixty-five percent of respondents to a question in

the ARC survey said that they have concerns about environmental issues in Churchrock Chapter. Health issues (22%) and mining issues (22%) were the main concerns of respondents, followed closely by water pollution (21%) and air pollution (21%). Noise pollution and other environmental concerns comprised the remaining 13%. Respondents could list more than one concern.

1.6 History of Education

Compulsory education was a provision of the Treaty of 1868 between the United States and the Navajo Tribe. President Ulysses S. Grant's policy to "civilize" Indians fostered the establishment of church schools in Indian country. Rehoboth Mission Schools, located about five miles southwest of Churchrock, was established under this program. Many church schools eventually failed due to tensions between traditional Navajo and church school teachings, as well as the failure of the U.S. Congress to adequately fund these schools (Rehoboth was not one of these and continues to the present day).

With their demise, many of the church schools were replaced by Federal Bureau of Indian Affairs (BIA) schools. Fort Defiance had the first BIA school located on the Navajo Reservation. Others soon followed as enrollment and enforcement of education policies increased. Schools were established around the country, including schools in Albuquerque, Santa Fe, and at Fort Wingate near Churchrock. These schools served all the tribes in the Southwest and resulted in both intertribal conflicts and intertribal marriages.

Today, the remaining boarding schools serve the needs of the most rural students and of families with special needs. They, too, foster active parental involvement, which has dramatically changed the school environment.

Children were often taken against their own and their parents' will. The schools were boarding schools that were run in military fashion. Students wore military uniforms and marched to class, to meals, virtually everywhere. Discipline was strict. Students suffered from malnutrition and were susceptible to disease. Many students ran away from school,

and were often hidden by relatives.

Eventually, the so-called off-reservation schools were phased out and local schools were established, allowing Navajo children to go to school in their home communities. These schools fostered the idea of local control, and provided for some economic development in the communities where they were located. Today, the majority of Navajo students attend public schools due to the Johnson-O'Malley Act sponsored by President Lyndon Johnson, which provides additional funding to schools with large numbers of Indian students attending.

A number of schools have had difficulty meeting state performance standards as measured by student performance on standardized tests. Impact Aid Funds were allocated for school districts on or near Indian and military reservations to hire additional staff and upgrade or replace educational facilities.

Unfortunately, much of this money was distributed among all the school districts in the state regardless of the legislative intent to provide additional support for Indian and military-dependent student populations. In order to remedy this situation, the school districts of Zuni, Gallup-McKinley County and Grants-Cibola filed a lawsuit against the State of New Mexico. To end this lawsuit over the way it distributes school construction money to districts, New Mexico passed legislation that would make available \$600 million over the next decade for capital-outlay projects and give preference to cash-poor communities.

Under the new law, the state will issue bonds totaling \$60 million a year for the next 10 years backed by proceeds from its severance-tax fund, which is drawn from taxes paid by mining concerns. The law sets aside a portion of the new money generated by the bonds for districts less able to raise money through property taxes.

The new law allocates money for a study of the state's school construction and repair needs and establishes a task force to investigate a more permanent solution to the problem of the funding formula.

Assistant Attorney General Bennett Cohn acknowledged that the way the state has distributed capital-outlay funds shortchanged the cash-poor districts because the formula failed to adjust sufficiently for such districts' inability to raise money locally. The law represents "some serious dollars" for needy districts, he said. However, the districts must still struggle to meet the needs of their students.

1.7 History of Health Care

The subject of death is taboo among Navajos. You do not talk about it or plan for it. Many Navajos consider buying life insurance as inviting death or some major tragedy into the home.

Burial sites or places where people have died are to be avoided. Thus, hospitals built by various churches and the Indian Health Service were avoided for a long time. The Catholic Church built St. Mary's Hospital in Gallup. The Christian Reformed Church built Rehoboth Mission Hospital as part of their ministry to the Zunis and Navajos.

The introduction of Christianity, World War II, personal crusades, and effective public health programs began to change the traditional attitude towards health care. Veterans of World War II came home with new experiences, including the acceptance of modern medicine and rejection of some of the old ways. Dr. Annie Wauneka led a long-term nutrition program to fight against tuberculosis, and a prenatal care program under the sponsorship of the Pet Milk Company. Dr. Wauneka received the Freedom Medal for exceptional peacetime achievement. New programs were created for Navajos, including Mother and Baby Care, the Community Health Representative Program, the Elderly Home-Care Program and Senior Citizens Program, the Women, Infants and Children's Program, among others.

From the 1950s through the 1980s, there was heavy uranium and coal mining in the Churchrock area. People living here are suffering from a number of ailments including diabetes, heart disease, alcoholism, and various

types of cancer. Medical evidence seems to indicate that the illnesses are related. While no ultimate cure has been developed for these illnesses, treatments developed so far involve a lot of patient education and self-help.

1.8 Fun, Games, and Sports

Raising livestock has been a traditional means of earning a living among the Navajo. Children learn to work with livestock early in life. The Navajo have also enjoyed activities associated with raising livestock such as horseracing.

Horse racing used to be one of the favorite sports in Churchrock, with numerous racing families in the area including the Arvisos, Begays, and Damons. Rodeo is now the favorite sport, with youngsters joining the junior rodeo circuit and moving into the various Indian professional rodeo associations throughout the Navajo Reservation and the western states. Some of the early rodeo promoters were the Arvisos, Bates, Bowmans, and Becentis. Today, some of the biggest rodeos are held at Red Rock State Park, including the June Lion's Club Rodeo, the Gallup Inter-Tribal Indian Ceremonial Rodeo, and the New Mexico State High School Rodeos.

Dancing is a favorite activity. Those raised in the traditional way have fond memories of Navajo ceremonies and the related social dances. The ceremonies established alliances among families from different communities, and the dances brought young people together from Churchrock and other chapters such as Pinedale and Iyanbito. These summer social dances created romances. The Fort Wingate Valley Boys' swinging guitars and foot-stomping music kept the Chapter Houses rocking far into the night.

Red Rock State Park, created by the City of Gallup, McKinley County, and the State of New Mexico has made a major contribution to the Churchrock economy. The purpose of the park is to promote local economic development, to advertise and preserve Native Indian arts and crafts, Native cultural traditions, songs, and dances. The wholesome inter-tribal camaraderie and friendly competition in this picturesque setting creates numerous

opportunities for joint investment for tourism development. However, Chapter members need to work collaboratively with government agencies to maximize these opportunities.

A “Visioning” exercise was held with the Community Land Use Planning Committee at which time these questions were asked:

1. *What’s unique and different about Churchrock?*
2. *What do we want to preserve ?*
3. *What do we want to change?*
4. *What would we like Churchrock to be in twenty years?*

1.9 Community Issues

As part of the Chapter’s community visioning process, the Churchrock Chapter community identified its concerns and hopes for the future. At various meetings, participants were asked to comment on the following areas in response to a set of questions:

- Business/Economic Development/Tourism
- Service: Health, Safety, Recreation, Social Services, Elderly, Pre-School
- Education
- Families
- Housing
- Environment
- Transportation
- Culture/Tradition
- Land Uses
- Governance

1. What’s unique and different about Churchrock?

Historic/Cultural Features:

- Kit Carson Cave
- Outlaw Trading Post
- Fort Wingate/Army Depot
- Inter-tribal Ceremonial
- Red Rock State Park
- Red Rock Balloon Rally

Natural Features:

- The red rocks (beauty)
- The Pyramid (rock formation)

Infrastructure/Facilities

- Churchrock Elementary School
- Post Office
- Interstate—40
- Industrial Area/Park (opportunities/location)
- Close to Gallup (resources, opportunities)
- Railroad
- Outdoor Market

The Community

- Traditional and Christian People
- Changes in living patterns
- Developing a sense of place (many Chapter members came from elsewhere)
- Tolerant people (accepting of all that goes on around them)
- Checkerboard Area
- Multiple jurisdictions – need to work together

2. What do we want to preserve?

Historic Places

- Kit Carson Cave
- Outlaw Trading Post
- Anasazi Ruins

Facilities

- Red Rock State Park
- Outdoor Market
- Churchrock Elementary School

Culture

- Song and Dance
- Pow Wow
- Inter-tribal Ceremonial
- Elderfest
- Churches
- Navajo language

Natural Features

- Red Rocks (beauty of the land)
- Churchrock (the rock formation)
- The Pyramid

Environment:

- The land, the environment
- Clean air and water
- Clean water/natural resources
- Rural character

3. What do we want to change?

Infrastructure

- Need an Interstate-40 interchange

- Four-lane frontage road (old Route 66)
- School – Community involvement
 - More parent involvement
- Housing
 - Repair
 - Replace Indian Village
 - Elderly group home
 - Home improvement

Water Issues

- Water supply
 - Repair of windmills
 - Dredge old stock tanks (ponds)
 - Recycle mine water
 - Diversion project
 - Retain storm water
- Water quality

Emergency Services

- Local fire department
- Adequate water system for fire protection
- Ambulance
- Police Station housing all law enforcement agencies

Economic Development

- Local businesses
 - Mini-market
 - Wal-Mart
 - Laundromat
 - Bakery
 - Auto parts/Garage
 - Barbershop/Beauty Salon
 - Veterinarian's office

Community Development

- Don't change too fast
- Planning and zoning/especially for Sundance area
- Outdoor recreation
- Beautification – practical landscaping
- Improved land conditions
 - Sustainable
- Wellness clinic, especially for mothers-to-be and children ages 0-5

4. What would we like Churchrock to be in 20 years?

Stores/Retail

- Wal-Mart (mini)
- Supermarket – Basha's
- Fast food restaurants

Services

- Bank
- Optician
- Service Station

Economic Development

- Overnight stables for livestock
- Create wealth and keep it here!
 - Jobs
 - Industry
- Have a golf course
- Horseracing and casino
- Job Training Center
- Industrial uses
 - Environmentally friendly (dry)
- Arts and crafts
- Cooperative wool/weaving organization and store
- Trash recycling plant
- Precious metals smelting
- Tourism activities
 - Tours
 - Travel Center
- Motel
- Bed & Breakfast
- Hotel

Educational Facilities

- High school
- New elementary school
- Branch college

Youth/Recreation

- Recreation center
- Pool and Recreation Center for Youth
 - Water Park
- Sports complex
 - Skate Boarding

- Softball
- Fitness Center
- Rodeo Grounds
- Indoor rodeo

Community Services

- Cultural Center
- Elderly
 - Senior Center
- Group Home and Day Care
- Public Library
- Local Cemetery
 - For local people and especially veterans
- Mortuary and Chapel

Government

- City government – laws, services, own jurisdiction – local government
- Kayenta model?
- New Office complex for Chapter services

Miscellaneous

- 100th anniversary of Ceremonial
- I am from Churchrock!
- Alternate energy

The Churchrock Survey: What the Community Tells Us

During the Summer of 2001, ARC conducted a survey of Churchrock Chapter members to gain information about Chapter members, their lives and living conditions and their opinions on what is needed to improve the quality of life in Churchrock. One-hundred forty-seven surveys were completed and analysed. This number reflects approximately 20% of the Chapter's households as reported in the 2000 Census, which lists 725 occupied year-round houses.

The Surveyed Households: Demographics

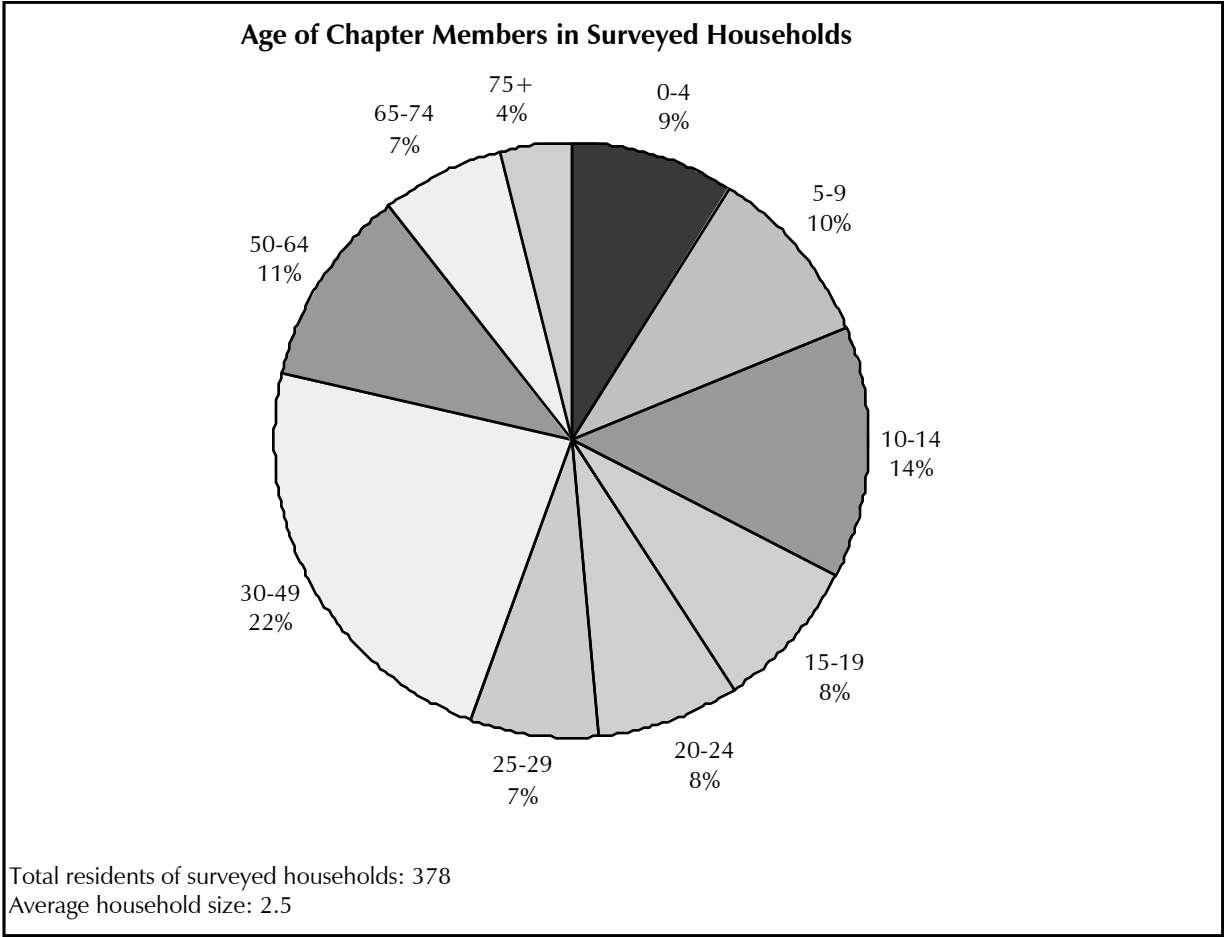
Within the surveyed households, there were a total of 378 household members. The average number of people per household was 2.5. According to the 2000 Census, the average number of people per household was 4, so the survey results must be reviewed with some caution.

- **Age of Household Members**

Forty-one percent of the household members within the surveyed households were under the age of 20. Forty-eight percent were between the ages of 20 and 64, while the remaining 11% were 65 and older. The 2000 Census showed that 45% of Chapter residents were under age 20, 50% were between 20 and 64, and 5% were 65 or older.

A pie chart on the following page shows age ranges for Chapter members.

Exhibit 3: Age of Chapter Members



- **Education Levels**
The household member who responded to the survey was asked about his or her highest level of education. The numbers in the following chart reflect their replies. The 2000 Census statistics for education will not be available until Fall 2002.

Exhibit 4: Education Levels

How much education has this person completed?				
Some School	Attended High School	HS Diploma or GED	Some College	Technical School
21%	22%	31%	16%	11%
Military Training	Certificate	Associates	Bachelors	
8%	30%	3%	1%	

- Employment

Among the respondents surveyed, an unemployment rate of 35% was reported. The 2000 Census data on employment will not be available until Spring 2002. The majority of employed respondents worked in places other than those listed in the survey followed by a large percentage of respondents reporting Gallup as their place of employment.

Exhibit 5: *Employment Status*

Employment Status				
Employed	Unemployed	Self-employed	Retired	
47%	35%	6%	12%	
Where Employed				
Gallup	Albuquerque	Crownpoint	Chapter	Other
47%	1%	1%	2%	49%

- Household Income

Seventy-six percent of respondents reported a household income of fifteen thousand dollars or less. Only three percent of respondents reported a household income of thirty thousand dollars or more. The Census 2000 statistics for income will not be available until Fall 2002.

Exhibit 6: *Household Income*

Household Income		
\$0 - \$15K	\$15K - \$20K	\$20K-\$25K
76%	11%	12%
\$25K - \$30K	\$30K - \$40K	\$40K - \$50K
3%	2%	2%

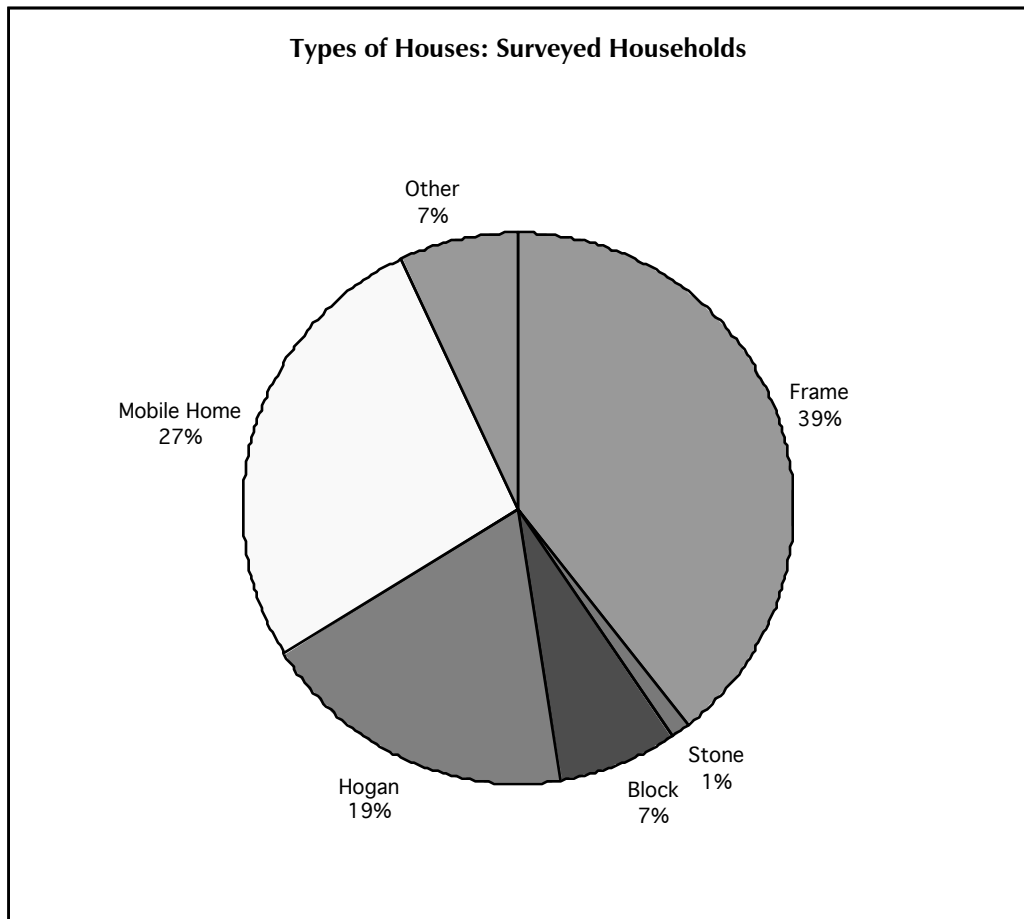
Housing and Utility Conditions and Needs

Community members were asked a number of questions about their houses and the utilities that serve them. This section presents that information.

- House Construction

Among the surveyed households, the most common house construction type was frame (39%), followed by mobile homes (27%) and hogans (19%). Cement block and stone construction accounted for 8% of all houses. Other building materials accounted for the remaining 7% of construction. Some of the respondents indicated more than one choice, which may reflect the use of more than one material in the construction of their home or that they have both a house and a hogan.

Exhibit 7: *Types of Houses*

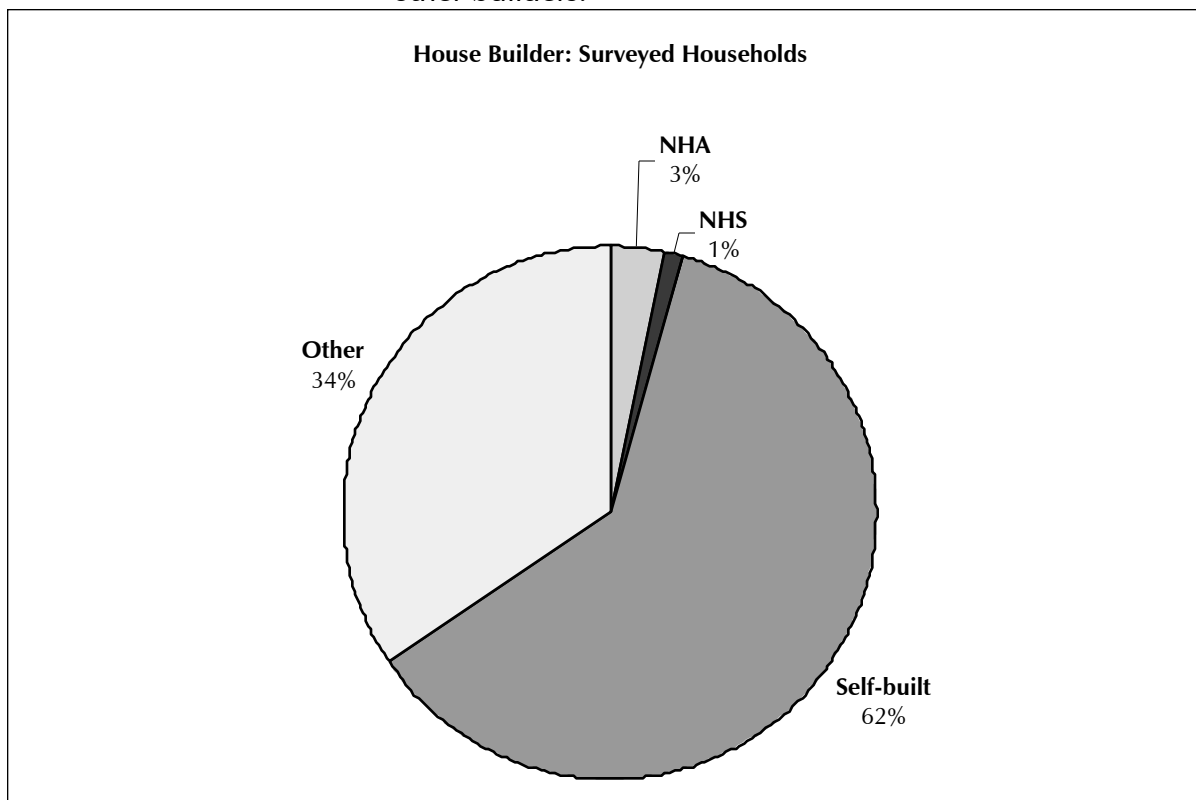


- House Builder

NHA and NHS reportedly built only 4% of the houses among surveyed households. Sixty-two percent of respondents reported that they had built their own homes,

Exhibit 8: House Builder

while 34% of houses were reported to be constructed by other builders.



- **Reported Housing Condition**

Survey respondents were asked their opinions about the condition of their houses in terms of various housing systems such as the foundation, roof, walls, etc. In all cases, the median system condition was reported as “good” with rather large numbers of responses (>25%) of “fair” condition for wall, roofs, floors, and heating/cooling systems.

Exhibit 9: Reported Housing Conditions

Reported Housing Condition: Surveyed Households			
	Good	Fair	Poor
Foundation	60%	21%	19%
Floor	50%	26%	24%
Roof	49%	25%	26%
Walls	54%	31%	15%
Electrical	78%	19%	2%
Plumbing	75%	11%	14%
Heating/Cooling	68%	25%	7%

- Owner Status

Ninety-four percent of respondents reported that they owned their own houses. A number of respondents (6%) described themselves as homeless and reported that they were living with friends or relatives, or in buildings other than those meant for housing (a tool shed, for example).

- Utilities: Overview

Seventy-nine percent of respondents reported that they have electric service. Sixty-four percent had water, 65% had sewer or septic service, 69% had LP or other gas for heating and cooking. Fourteen percent of respondents reported that they had telephone service.

- *Primary Source of Heating*

Many people used a combination of sources for heating. Seventy-one percent of respondents stated that they used wood as a primary heat source. Sixty-one percent used coal, 53% used LP gas, and 33% used electricity.

- *Electricity*

Eighty-two percent of respondents received power from the electric utility. Five percent of respondents used gas generators for electricity, while 14% reported that they used other sources.

- *Plumbing*

Seventy-three percent of respondents reported that they have full plumbing, both kitchen and bathroom. One percent reported kitchen plumbing only, and 2% reported using privies. An additional 27% reported using other alternatives to kitchen and bathroom plumbing.

- *Domestic Water*

Sixty-four percent of respondents reported that they get water through the Chapter's water lines. Thirty-seven percent had to haul in domestic water, 9% used a windmill, and 1% had a cistern. The rest of the people (24%) surveyed mentioned "other" as their water source. Some respondents reported using more than one source of water.

- **Waiting Lists for New Housing**

Fourteen percent of survey respondents reported that they are on waiting lists for new housing.

Grazing and Agriculture

- **Grazing**

Forty-four percent of those surveyed grazed livestock. Among those respondents, 64% hauled water. When asked for their opinions on the condition of their rangeland, 81% reported that it was fair to good.

**Exhibit 10: Livestock
Grazing**

Do you graze livestock?	Yes 44%	No 56%		
Do you haul water for your livestock? (among those that graze)	Yes 64%	No 36%	Avg. Gals/Mo. 39	
What is the condition of the range that you use for livestock? (among those that graze)	Poor 8 13%	Fair 14 22%	Good 38 59%	Excellent 4 6%

- **Transportation**

Eighty percent of those who responded to this question said they had their own vehicles on which they relied for transportation. One percent carpooled. Nineteen percent used some alternative means of transportation.

- **Use of the Chapter House**

The majority of people living in the Chapter (88%) visit the Chapter House at least monthly, while 12% do not visit the Chapter House. Many people use the Chapter House for a variety of reasons, the most common of which are voting, attending chapter meetings, for water, and to attend social events.

Exhibit 11: *Use of the Chapter House*

Do you go to the Chapter House?	Yes 88%	No 12%
Among those who said yes, how often do they go?	Daily 3%	Weekly 4%
	Monthly 91%	No Answer 2%
Why do you go to the chapter house? (can be more than one answer)		
Chapter Meetings		20%
Vote		20%
Other		18%
For Water		11%
Social Events		9%
Project Planning		6%
Senior Programs		5%
Health Clinic		5%
Social Services		2%
Veterans Group		2%
Youth Programs		1%
Thrift Store		1%
To use a Computer		1%

- **Familiarity with LGA and the Land Use Process**

A good percentage of survey respondents were familiar with the LGA and the planning process. Thirty-two percent were familiar with the LGA and 52% with the planning process.

- Environmental Concerns within the Churchrock Chapter**

Sixty-five percent of the respondents who answered this question, stated that they have concerns about environmental issues within the Churchrock Chapter. Health issues (22%) and mining issues (22%) were the main concerns of respondents followed closely by water pollution (21%) and air pollution (21%). Noise pollution and other environmental concerns comprised the remaining 13% of responses. Respondents could check more than one response, which may account for the relatively equal distribution among the various concerns.

Exhibit 12: *Environmental Concerns*

Do you have concerns about any environmental issues in your chapter?	Yes	No
	65%	35%
What issues concern you?		
Water Pollution	Health Issues	Mining Contamination
21%	22%	22%
Air Pollution	Noise Pollution	Other
21%	9%	4%

Open-Ended Questions

The people who responded to the survey were asked a number of open-ended questions, that is, questions in which they were not prompted for specific responses, but were encouraged to come up with their own ideas.

- **What do you like best about Churchrock Chapter?**

The first question was to ask people what they liked best about the Chapter and living there. The chart below summarizes the responses. Many people did not respond to this question.

Exhibit 13: What People Like Most About the Chapter

What People Like Most	Percent
Peace and Quiet	43%
No Complaints	11%
Police Protection	3%
People Help Each Other	3%
Family	3%

- **Family Needs**

Survey respondents were asked what they felt their families needed. Needs were many and varied, as stated below:

Exhibit 14: Family Needs

Family Needs	Percent
New or Better Roads	52%
Telephones	41%
Water	37%
House	29%
Home Improvements	26%
Electricity	22%
Firewood	16%
Septic/Sewer	14%
Coal	14%
Solid Waste/Trash Service	11%
Jobs	7%
A bridge	7%
Land	5%
Job Training	4%
Fire Services	4%
School Bus	4%
Health Services	4%
Food	3%
Police Services	3%

- **Community Needs**

Survey participants were asked for their opinions on what is needed to improve the Churchrock community. Their responses are presented below:

Exhibit 15: Community Needs

Community Needs	Percent
Road Improvements	44%
Trash Dump Sites	18%
Home Improvements	18%
Running Water	17%
Wood for Fuel	16%
Fire Protection	16%
Coal	15%
Telephone	13%
Livestock/Agricultural Assistance	11%
Electricity	10%
Sewer System	10%
Housing	8%
Bridge	8%
Police	7%
Transportation	7%
Job Training	6%
Jobs	6%
School Bus	5%
Store	5%
Land	5%
Emergency Services	5%
Water Tanks	4%
Education	4%
Community Services	3%
Road Signs	3%
Laundromat	3%
Home Site Lease	3%
Teen Summer Programs	2%
Gas Station	2%
Windmill Repair	2%
Ranger	2%
Health Services	2%
Irrigation	2%
Senior Center	2%
Recreation	2%
Road Maintenance Equipment	2%
Food	2%

1.10 Chapter Planning Goals

Using the information gathered in the visioning exercises and community survey, the following were identified by the CLUP Committee as desirable goals for the Churchrock Chapter. Policies, as outlined in Section E of this document, have been developed to attain these goals.

A. Grazing and Agriculture

- Ensure there is adequate land for grazing and agriculture.
- Identify and set aside suitable lands.
- Ensure land becomes, and remains, healthy and productive.

B. Environment

- Make Churchrock a healthy, clean place for people to live.

C. Natural Resources

- Protect existing resources and ensure for future use.
- Mitigate impacts and manage resources wisely.

D. Economic Development/Tourism

- Create business and industry in the Chapter.
- Keep money in the Churchrock community.
- Provide needed businesses, goods, and services (two-way)
- Develop cooperative business associations between Churchrock community members, and with others beyond the Chapter.
- Create jobs in the Chapter.
- Develop tourism, which has a good potential for success due to the Chapter's location.

E. Services: Health, Education, Safety, Recreation, etc.

- Create educational opportunities for people of all ages.
- Provide health care, recreation services, adequate police and fire protection.
- Provide services that improve the quality of life.
- Provide services for elderly, veterans, and so on.

F. Infrastructure

- Ensure that there is quality, safe housing with all services provided.
- Provide basic utilities of water, sewer, gas, power, and telephone to the entire community.
- Provide all-weather roads throughout the community.
- Improve access to the community by building an I-40 interchange and widening the frontage road.

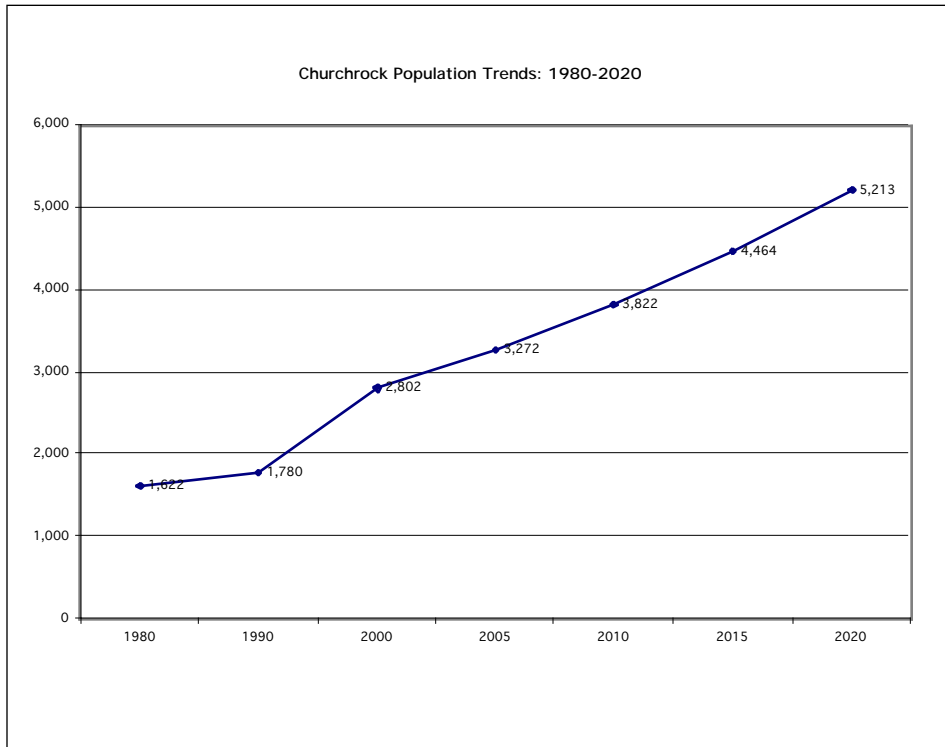
G. Governance

- Develop a township or other municipal form of local government.

2.0 Community Socio-economic Trends

This section describes population, demographic and

Exhibit 16: Population



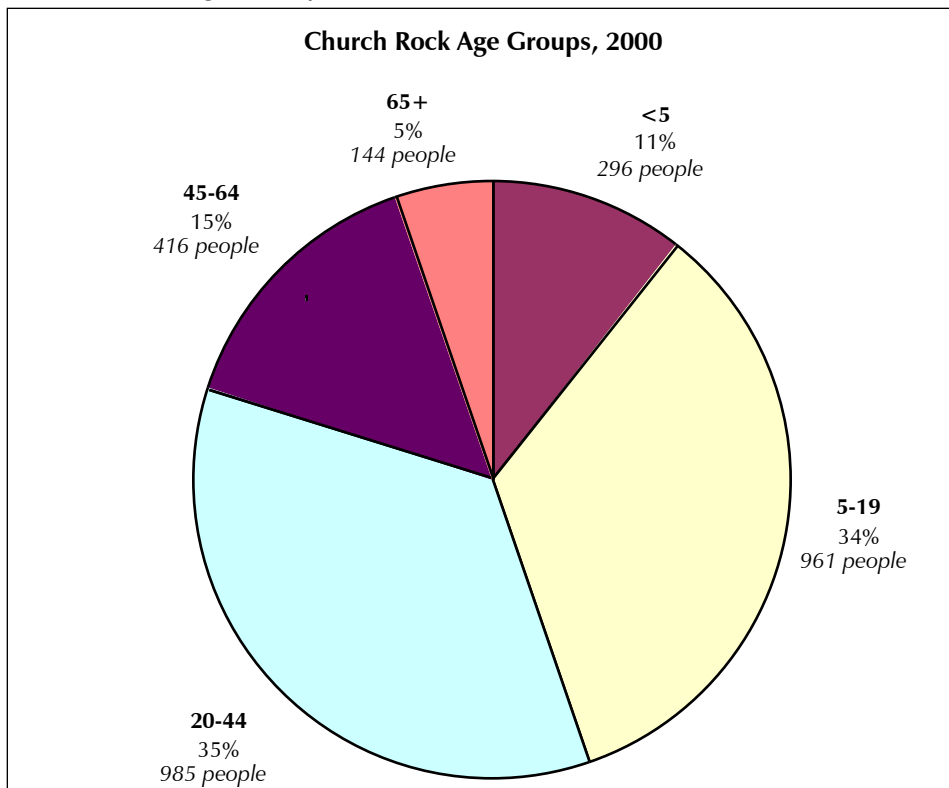
economic trends in the Churchrock community. Future housing and other community needs are determined by these factors.

2.1 Population Trends

Churchrock community had a population of 1,780 persons in 1990 (U.S. Census). Since that time, the Chapter has been growing at a steady rate. According to the 2000 census the population of Churchrock Chapter was 2,802 people.

If the current growth rate continues, projections are that the Chapter will grow to 3,822 in 2010 and 5,213 by 2020.

Exhibit 17: Age Group Distribution



2.2 Demographic Characteristics

The 2000 U.S. Census also found that 34% of the Churchrock population are near school-aged, 5 to

19. Another 35% are ages 20 to 44. About 15% of the population are in the 45 to 64 age group. Churchrock's senior population (age 65+) comprises about 5% of the total. A household survey conducted by ARC found forty-one percent of the household members within the surveyed households were under the age of 20. Forty-eight percent were between the ages of 20 and 64, while the remaining 11% were 65 and older.

2.3 Employment and Income

The Navajo unemployment rate on the reservation is 58%, while the unemployment rate for the U.S. is approximately 5%. The unemployment rate in 1997 for the Eastern Agency of the Navajo Nation was 67.9% and 9% for McKinley County. (Navajo Nation Economic Development, 1997 and Bureau of Labor Statistics)

Only 49% of Reservation income is derived from wages and salaries. Forty-two percent is derived from social security, retirement, interest/dividends and other. (Navajo Nation Transportation Plan, 1998)

Among the Chapter members surveyed by ARC, an unemployment rate of 35% was reported. The 2000 Census data on employment is not available at this time. The majority of employed respondents worked in places other than those listed in the survey, followed by a large percentage of respondents reporting Gallup as their place of employment.

Major employers in the Churchrock area are:

- Meridian Oil Company
- Rehoboth Christian School
- Hamilton Construction Co.
- Navajo Nation
- Indian Plaza
- Churchrock Elementary School
- Red Rock State Park
- Head Start
- Thompson's Store
- Thriftway
- Churchrock Mine

Income is also generated by livestock grazing, jewelry making, silversmithing, sewing, stone carving, wood carving, and weaving.

Seventy-six percent of respondents to ARC's survey reported an annual household income of fifteen thousand dollars or less. Only three percent of respondents reported a household income of thirty thousand dollars or more.

2.4 Leakage of Income and Revenue

Leakage of Navajo Nation income and revenue outside the reservation is a serious problem. Only about 24% to 30% of personal income is spent on the reservation.

2.5 Education Levels

For the Navajo Nation in 1990, 43.5% of people over age 25 had a high school diploma and 5.5% had graduated from college. In comparison, 31% of the respondents (the household member who answered the questions) in the ARC survey had a high school diploma, GED, or higher education. Of these, 4% had college degrees including Associates, 3%, and Bachelors, 1%. A high percentage of respondents, 65%, had some college or other types of training including military training, technical schooling, and certificates.

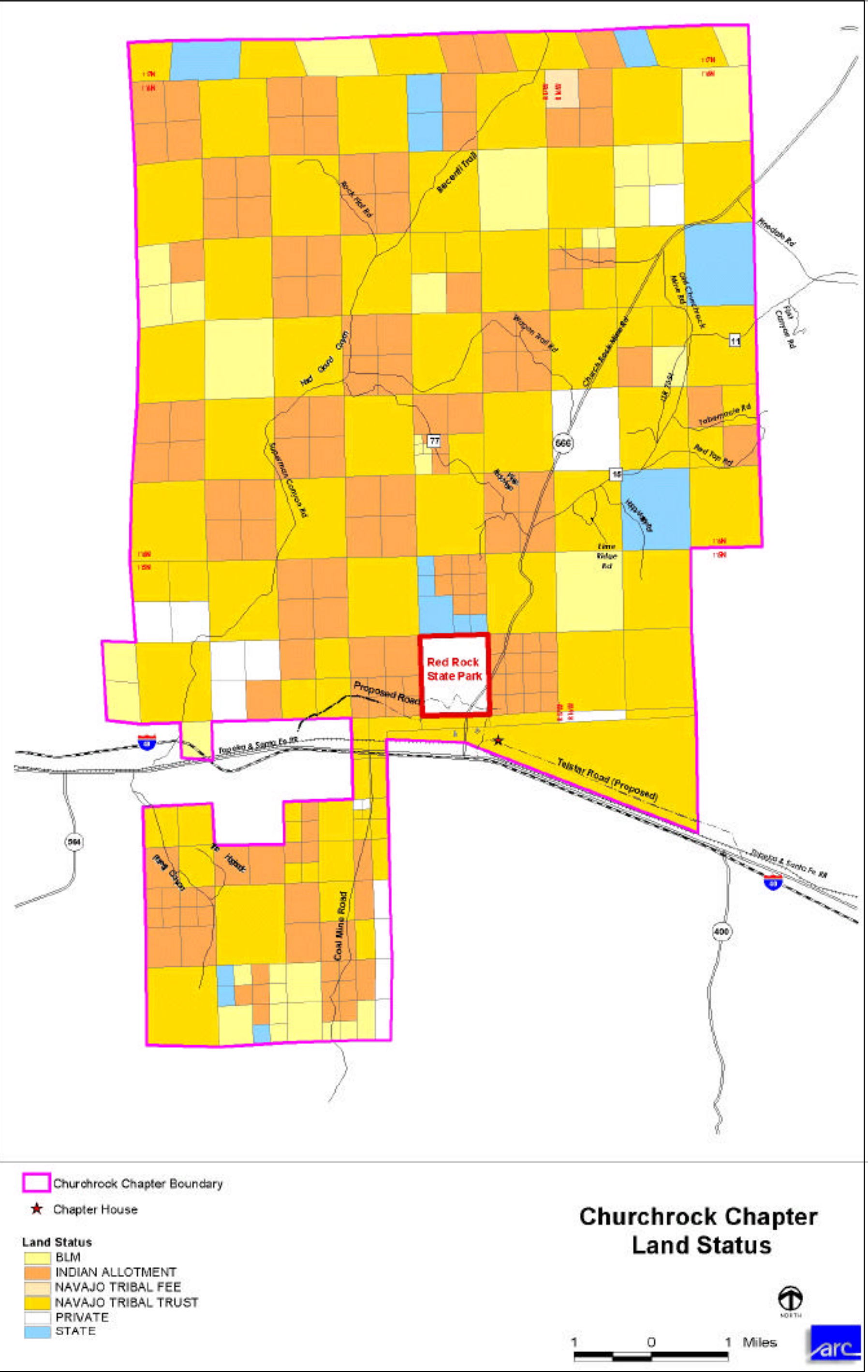
3.0 Land Status

Treaties with the United States government established the Navajo Indian Reservation as a homeland for the Navajo people. As the population grew, additional tracts of land were added by Executive Order, land exchanges, and the purchase of fee lands. The Navajo Reservation is divided into five agencies and 18 grazing management units.

The total Chapter area is approximately 57,827 acres (Exhibit 18)

- Trust: 30,504.91 acres, 52%
- Fee: 124 acres, 2%
- Indian Allotted: 15,317.56 acres, 26%
- BLM: 5,862.68 acres, 10%
- Private 3492.1 acres, 6%

Exhibit 18: Land Status



- State: 2486 acres, 4%
- Status unknown: 40 acres, less than 1%

About 37 sections consist of rugged mountain ranges, canyons, and highlands including the Red Rocks, Hogbacks, White Cliffs, Cliff Dweller Canyon, White Rock Mesa and Canyon, Hard Ground Canyon, Nose Rock Mesa, and Ram Mesa. They are not suitable for community or industrial development. Tourist development may be a possibility in these areas.

4.0 Housing

This section describes existing housing, housing needs, and proposed housing in the Chapter. housing needs for the Chapter. Existing and proposed housing uses are shown in Exhibits 24 and 25.

Existing Housing and Planned Housing

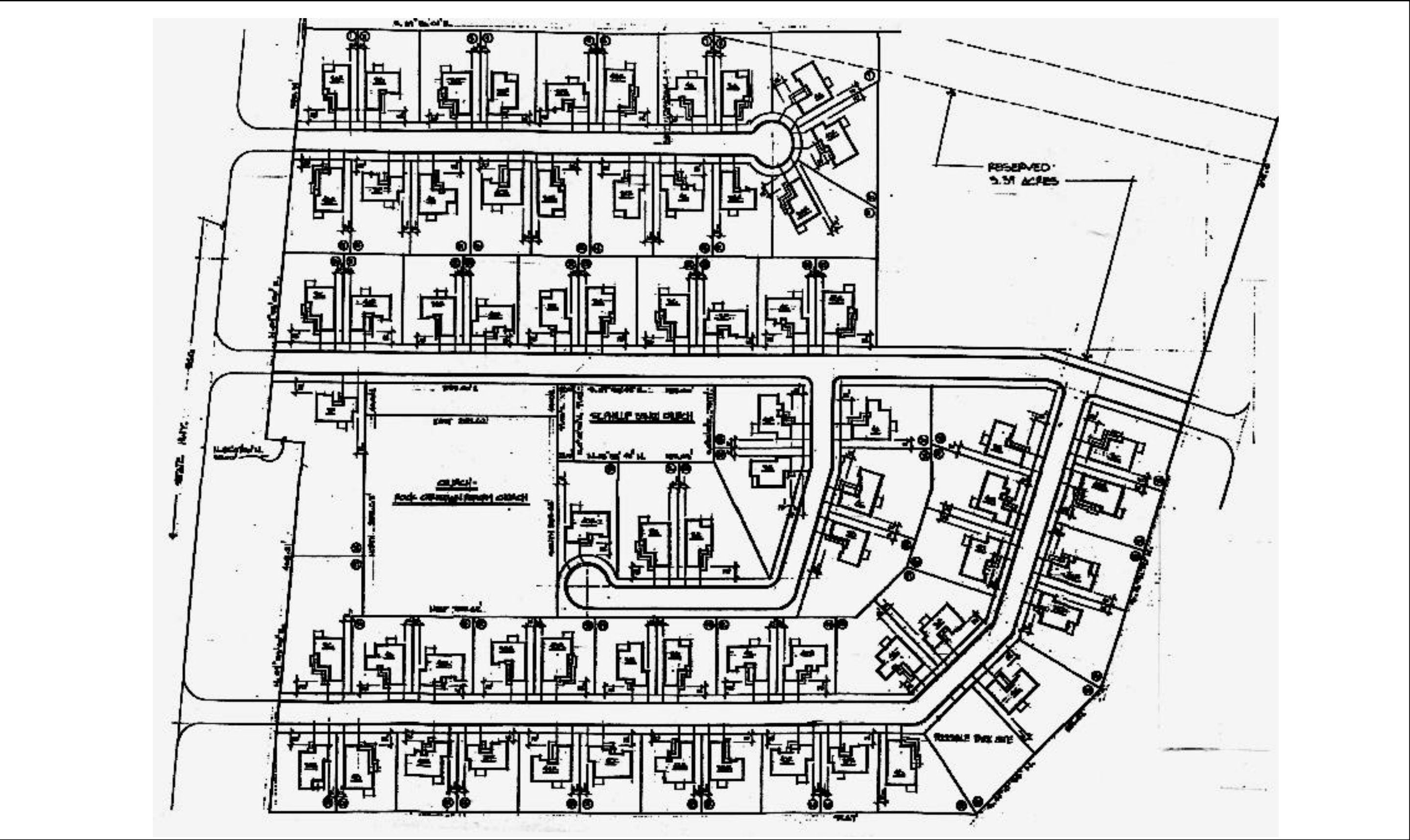
Churchrock people tend to live in clustered homes on the ridges or upper valleys in family groups. The Churchrock Chapter also has five housing subdivisions: one on Global Road, the NHA Subdivision west of State Road 566 and immediately northwest of the Burlington Northern-Santa Fe Railroad, the old Indian Village east of State Road 566 constructed for Fort Wingate Depot employees during World War II, which has been mostly replaced by the Churchrock Estates subdivision being built by Fort Defiance Housing Corporation, the Sundance Subdivision south of I-40, and the Coalmine Subdivision south of the Sundance Subdivision. While some homes have electricity, running water, and indoor plumbing, many do not and are substandard. Exhibit 18 is the count of housing units reported in the 2000 Census.

Exhibit 19: Churchrock Housing Units, 2000

Churchrock Housing Units, 2000			
Total	Occupied	Vacant	Seasonal
1020	725	212	83

The reported number of housing units has increased from 421 in 1990, a 42% increase
Source: U.S. Census 2000

Exhibit 20: Churchrock Estates (old Indian Village) Subdivision Plan



The Southwest Indian Foundation is working with the Chapter to build low-cost homes (\$6,000 each) in Churchrock. U.S. Air Force Cadets are designing and building the homes as part of their studies. A non-profit organization, Twilight Dawn, has been contracted by the Navajo Nation to coordinate another rent-to-own housing program.

The Fort Defiance Housing Corporation is planning a subdivision, which they are calling Springstead, on a section of private land within the Chapter. The Springstead Subdivision has the potential for 1000 homes, a commercial area, and a school. While anyone may purchase a home there, Churchrock Chapter members will be given first preference.

Various types of loan programs will be available to potential buyers, some of which will be based on qualification by income. Some high end housing as well as rent-to-own housing may be built. Homes will be on 1/4 acre lots. Costs of the homes are estimated to be between \$140,000 and \$150,000.

Housing Needs

It is estimated that about 50 families need to be relocated from the Old Indian Village for health and safety reasons. The Fort Defiance Housing Authority was authorized to demolish the old structures and build a new subdivision. It plans to provide a right of first refusal to the people who are being displaced. Between sixty and seventy housing units are to being built on the site of the old Indian Village in the new Churchrock Estates subdivision.

Old Indian Village



*New housing in Churchrock
Estates under construction*



In addition, 26 families have applied for scattered housing homesites to NHA, and 5 families have applied for housing assistance to the Southwest Indian Foundation.

As of June, 2001 there are 55 housing requests, 75 homesite lease requests (the Churchrock Chapter has put a freeze on any new leases, but the Navajo Nation is still issuing permits), 35 or so requests for surveys.

Proposed Housing

The Navajo Housing Authority has offered to build 20 more homes for individual ownership and 15 rental units within Churchrock. There appear to be six vacant lots in the Coalmine Subdivision. According to the Navajo Land Administration, another housing addition may be located west of SR 566 on Tribal land known as Brownsville.

**5.0 Natural Resources, Grazing and Agriculture
Existing**

The Churchrock Chapter is in the Eastern Navajo Agency in Grazing Management District 16. There are a few fenced

range management units in Churchrock, but most of the land is in open range for livestock. The hillsides and valleys are generally overgrazed and the range is in fair to poor condition. According to the results of the survey conducted by ARC, forty-four percent of those surveyed grazed livestock. Among those respondents, 64% hauled water.

Some families raise food and livestock feed for their own use. There are 44 family farms, which are often located in the bottomlands. Major interstate utility lines that run through the valleys also make it difficult to continue agriculture in the lowland areas.

Churchrock Sheep

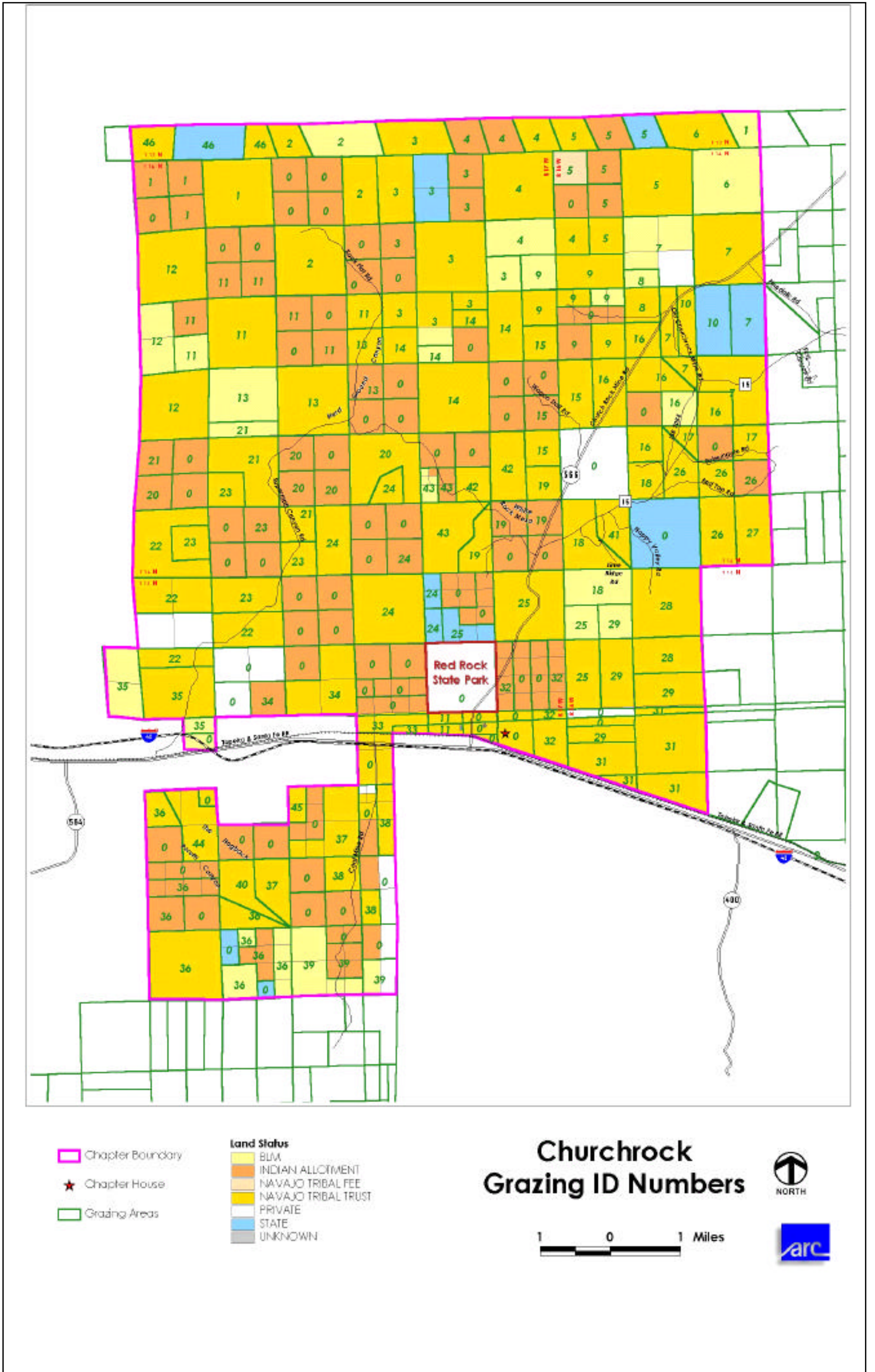


Proposed

Grazing and agriculture problems that need to be addressed include overgrazing, water and wind erosion, reduced income potential from farming and ranching, loss of wildlife habitat, environmental pollution of air and water quality, illegal dumping, toxic and hazardous wastes, and pollution of streambeds and open waters.

A need exists for a professional natural resources inventory of the Chapter. There is a need for a range and grazing management plan for the Chapter, especially in Peretti Canyon, Superman Canyon, Hard Ground Canyon, and up the valley east of Nose Rock and White Mesa along the

Exhibit 21: Livestock Grazing



north fork of the Puerco River and its tributaries to Ram Mesa. This planning should include land restoration, revised stocking rates of numbers of livestock, water development, and conservation of land and resources.

In the past, crops including corn and alfalfa were grown in Churchrock. Farming is disappearing from the Chapter due to the lack of water and poor soils for agricultural use. Churchrock is in a semi-arid climate with limited rainfall and periodic droughts. The only reliable source of water for agricultural use, in terms of both quality and quantity, is purchase from Gallup. Organizations that used to provide water for agricultural use have changed their policies to limit allocations to domestic use only or have stopped providing water altogether.

The Chapter has a number of windmills; however, almost all of them are out of order. It is difficult to keep them operating due to vandalism. A windmill near the Church Rock mine is currently functioning but may be pumping contaminated water. A windmill near the Sundance subdivision is functioning but not drawing water. Windmill 16T-606 is under the Crownpoint Operations and Maintenance Substation. The Vanderwagen Substation is responsible for the following windmills: 16T-510, 16T-534, 16T-336, 16T-608, 16T-559, and 16K-340.

The Chapter would like to see educational programs that teach good agricultural practices and methods of generating income from agriculture.

6.0 Commercial and Industrial Development

This section describes existing, needed, and proposed business uses, and possibilities for tourism development, in the Chapter.

Existing Business Uses

Existing business uses within the Chapter are as follows:

Red Rock State Park
Convenience Stores (2)

Indian Market
Industrial Park
Inter-Tribal Ceremonial
Outlaw Trading Post

Commercial and Industrial Development Needs

The Chapter needs facilities for various programs and businesses. The welfare-to-work program, Temporary Assistance to Needy Families (TANF), needs an office to provide clients of the Chapter with services. A solar electric company would like to put in a plant in the Chapter. The Navajo Nation Department of Economic Development would like to locate an economic development corporation within the Chapter. The lack of space is preventing these and others from locating in Churchrock. One possibility the Chapter would like to explore is possibly using some of the buildings at Fort Wingate for office and training needs.

Proposed Commercial and Industrial Development

In a Business Development Plan developed in 1989 by Bohannon-Huston and Associates, Albuquerque, New Mexico, it was recommended that an Arts and Crafts Outlet, Light Industrial Offices, Warehouse and a Commercial Area, and an IHS Clinic would be built in the Churchrock Industrial Park. Applications for these projects were incompatible with the purpose of the withdrawn area.

Because of Churchrock Chapter's close proximity to I-40, the Santa Fe Railroad, and Red Rock State Park, it appears that some of the projects are still feasible. There is a need to reconsider them and find alternative sites if necessary.

The Chapter proposed that a freeway interchange be established on Interstate-40 near Churchrock. The project has been delayed by a dispute over sovereignty between the Navajo Nation and the State of New Mexico.

The Indian Market has some potential as a flea market, but needs to be relocated due to traffic congestion, lack of parking, and problems with traffic control and safety.

Due to its close proximity to Gallup, I-40, and Red Rock State Park, the Chapter could encourage a motel, restaurant,

and conference center to locate in Churchrock.

The Fort Defiance Housing Authority is considering building a mini-mall along SR 566 in its plans for the Springstead subdivision. The Authority would like to acquire the lease for the Mustang gas station presently located in the area.

There have been recent discussions with the Rehoboth-Red Mesa Foundation about the possibility of joint ventures, especially commercial development, between the Foundation and the Churchrock Chapter. The Foundation's mission is to create revenue to sustain the activities of the Rehoboth Christian School, located on the western boundary of the Chapter. Possibilities include the creation of tourism facilities such as open space along the Hogback (a rock ridge running on both parties land) with trails, an arts and crafts center, and some type of lodging facilities. Other commercial ventures are being explored as well.

6.4 Tourism

The Navajo Nation Department of Tourism would like to establish an office in Churchrock, but there is no facility available that is affordable. The following are tourist destinations located in or near the Chapter:

- **Red Rock State Park**
This state park, with elevations from 6600 to 7000 feet and encompassing 640 acres, has a large campground, convention center, concessions, museum, restaurant, amphitheater, and an 8,000-seat outdoor arena. The park also contains the historic Outlaw Trading Post, built in 1888. Two major annual events are held at the Park: the Inter-Tribal Indian Ceremonial and the Red Rock Balloon Rally. Facilities for tourists en route to the park could capture additional revenue for the Chapter.
- **Gallup**
The nearby City of Gallup has more than 100 trading posts, shops, and galleries, making the city an important center for authentic Native American art. The city has a new Gallup Cultural Center, housing the Ceremonial Gallery, Storyteller Museum, Kiva Cinema, and Visitor Center. Located next door, Churchrock is in a prime location to capture some of the area's tourist dollars.

Possibilities for tourism-related development in the Chapter include a restaurant, motel, and a market center as described below.

- **Market Center**
The Navajo Nation Division of Economic Development, in association with the Tourism Department of the Navajo Nation, is developing Vendor/Market Centers throughout the Navajo Nation. Facilities that can be developed and operated in these centers include:
 - A Museum/Souvenir Shop/Information Center
 - Administrative Offices
 - Food Concession Area and Court
 - Arts and Crafts Vending Booths
 - Outdoor AmphitheaterThe Churchrock Chapter is actively exploring this program.
- **Zuni Mountains**
The Zuni Mountains run southeast to northwest, and the Continental Divide runs along their spine. There are several areas developed for recreation in the Zuni Mountains south of the Churchrock Chapter. These include the McGaffey Campground and Picnic Area eight miles south of Fort Wingate and Quaking Aspen Campground located six miles south of Fort Wingate. There may be opportunities for the Chapter to tap into tourism revenues as people travel into the mountains.
- **Route 66**
The Churchrock Chapter is located along Historic Route 66, which has been designated a National Scenic Byway. This designation creates opportunities for funding of development projects related to revealing the history of Route 66 and the areas through which it travels.

7.0 Community Facilities

7.1 Chapter House

Existing

The Chapter House was built in 1960. It is located about six miles east of the Gallup City limits overlooking the junction of Old U.S. 66 and New Mexico Road 566. The Chapter administration, Community Health Representative, the Adult

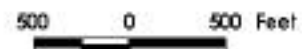
In-Home Care Worker, and the Senior Citizen Center are located in the Chapter House at the southern end of the compound. Other services provided at the Chapter House include:

- Helping people in working with the Navajo Nation and McKinley County with housing assistance, home repairs, water line extensions, power line extensions, and road improvements
- Helping people with paper work in obtaining homesite leases
- Providing facilities for the IHS nutrition counselor
- Helping people in obtaining assistance through various programs including Social Security
- Working with the Southwest Indian Foundation to obtain housing
- Providing Public Employment Program (PEP) - 10 day work programs
- Conducting a food distribution program
- Providing a polling place for elections
- Conducting Chapter meetings
- Providing an adult education program
- Providing space for Social Services - a Gallup worker comes every week or so
- Providing space for behavioral health services
- Housing and providing computers to the public with a Technology Development Lab
- Providing meeting space for Dine Legal Services

According to the survey conducted by ARC, the majority of respondents living in the Chapter (88%) visit the Chapter House. Of those who do go to the Chapter House, 98% go there at least monthly. Many people use the Chapter House for a variety of reasons, the most common of which are voting, attending chapter meetings, for water, and to attend social events.

This aerial map illustrates the Churchrock area in New Mexico, highlighting several key features and proposed developments. The map is overlaid with various colored lines and shapes to delineate different zones and infrastructure.

- Red Rock State Park:** Located in the upper left corner, outlined in red.
- Churchrock Elementary School:** Situated in the upper right, marked with a red building icon.
- Possible School Site:** Indicated by a black dot and line near the school.
- Challenge Road:** A road running horizontally through the center of the map.
- Old Indian Village / New Churchrock Estates:** A residential area on the left side, outlined in orange.
- Chapter Warehouse:** A building located near the center, outlined in orange.
- Proposed Open Space / Drainage Area Park:** A green-shaded area in the center, outlined in green.
- Hot Springs:** A location marked with a red dot and line near the center.
- Proposed Development Site:** A green-shaded area in the lower center, outlined in green.
- Teklar Road (Proposed):** A road running diagonally from the bottom right towards the center, outlined in blue.
- Other Features:** Various other roads, including a red-dashed line on the right and a magenta line at the bottom, and several smaller orange-outlined areas.



Churchrock Chapter House



Proposed

During the summer of 2001, the Chapter House was repainted inside, which improved the appearance of the building. However, there is a need for major repairs and renovation to the aging building. The Chapter is in the process of applying to the Navajo Nation's Abandoned Mines Land Trust Fund community projects program for a grant for renovation and expansion of the building. Renovation will include replacing lights, flooring, plumbing, and the heating and cooling system.

There are tentative plans to expand the building in the front to accommodate more office space and a possible library facility. There is land south of the Chapter House as well as the old Head Start facility east of the Chapter House that may also be used for future office space for Chapter use.

7.2 Public Safety

Existing

The Chapter has a growing population of its own and receives many visitors annually to Red Rock State Park. The 1989 Business Development Plan identified law enforcement and a fire station as community needs, confirmed during the land use planning process. Churchrock has a police substation located one mile

northeast of Thompson's Store on Solar Road. There are three officers assigned to the Chapter. Fire protection is currently provided by the City of Gallup Fire Department.

Needs

With the increase of domestic violence and numerous events at Red Rock State Park, emergency medical services and a peace-maker court should also be considered along with a detention center and fire station.

There are no fire hydrants in the Chapter. While there are no proposals to install fire hydrants, the Chapter is interested in exploring the possibility of installing flush-out valves along the water lines for fire protection.

Proposed

The Chapter is trying to set up a combination police/fire/emergency services center under joint administration with McKinley County. The County is willing to fund the center when a site is chosen. A site may be located at the Springstead housing subdivision or possibly south of Red Rock State Park.

7.3 Education

Existing

Educational facilities include:

- Church Rock Head Start Centers
- Church Rock Academy (Grades K-5), Public
- Gallup High School (Grades 10-12), Public, Gallup
- John F. Kennedy Middle School (Grades 6-7), Public, Gallup
- Rehoboth Christian School (Grades K-12), Private, Gallup
- Wingate Elementary School (Grades K-8) BIA, Fort Wingate
- Wingate High School (Grades 9-12) BIA, Fort Wingate

Higher educational facilities nearby include:

- University of New Mexico-Gallup Campus, Gallup

Needs

Children at Churchrock Academy have had difficulties performing at grade-level. It is essential that first-rate Head

Start-Child Care Programs be developed in the Chapter. These programs need to work with public school kindergartens to close the education gap before children start first grade. The Child Care Program will assure that the children receive proper nutrition and health care, as well as provide health care for new mothers, and additional employment in the community.

The modified mobile home units for the current Head Start Program need to be replaced. There is not enough playground equipment for the Head Start programs.

Due to growing enrollments and declining student performance, there is a need for a larger elementary school that can provide the space and services needed to improve academic achievement. A possible site for a replacement school for the elementary grades and a headstart facility is located east of Highway 566; however, the land is included in the boundary of Red Rock State Park and is presently unavailable for development. A land exchange, purchase, or other arrangements are necessary before this site can be utilized.

Churchrock Academy was formerly known as Churchrock Elementary School. The name signifies a new program begun at the beginning of the 2002-2003 school year. As previously mentioned, due to poor student performance, changes in the administration and in curriculum have been made. A significant change is a new school year that now runs for ten months instead of nine as before. This allows for time off to be given to students who perform well, and time for teachers to work with students who need further attention.

Proposed

The Bureau of Indian Affairs anticipates that a full replacement school for the elementary grades at Fort Wingate will be constructed, beginning in 2002. The replacement school should be completed in middle to late 2004. A planning study is being finalized for replacement of the Wingate High School, and is pending approval by the BIA.

John F. Kennedy Middle School in Gallup has plans to add 8th grade in the 2004-05 school year.

7.4 Health Care

Existing

The nearest Indian Health Service (IHS) hospital is the Gallup Indian Medical Center. Dental services are provided at the Fort Wingate Dental Clinic at Fort Wingate. There are reports that both facilities are suffering from inadequate funding, inadequate professional staff, and obsolete equipment. In light of continuing reductions in funding, a growing population, and a proposed takeover of the care system by the Navajo Nation, Navajo clients may need to buy health insurance to pay for a portion of the medical costs.

Proposed

A small health clinic is desired by the Chapter for pre-natal care, small emergencies, and other medical needs.

7.5 Community Centers

Existing

The Senior Citizen Center is located in the Chapter House. The kitchen for food preparation for the senior citizens is located on the southside of the building. The senior citizens eat in the main auditorium. It is difficult to keep non-kitchen personnel out of the kitchen, which compromises health regulations and security for food supplies. There are no conference rooms for small group meetings or individual interviews.

Arts, crafts, and other activities are conducted in the stage area of the Chapter House.

Proposed

The senior citizens would like to have their own center, which would have classrooms, specialty areas, conference rooms, and offices. A three-acre site for a new senior center is being set aside on land presently located in old Indian Village.

7.6 Recreational/Open Space

Existing

There is no recreation center in the Chapter. Some open space is preserved in the Chapter within Red Rock State Park.

Proposed

The community would like to see a recreational area developed at Sundance for youth activities. The San Juan Baptist Association is proposing to build a new church and youth center in the Sundance area on land that was initially proposed for a new Head Start facility. The Chapter also needs a community center to serve youth with programs.

North of Challenger Road lies an area that may be suitable for use as a recreation area, particularly soccer fields.

An area proposed as open space lies directly north of the Chapter House. It currently drains much of the surrounding area when it rains. While building here is not feasible due to flooding, the community would like to see it developed as a park that could be used when the area is not wet.

There is also a natural hot springs in this area that may be available for development as a tourist attraction.

There are large tracts of land within the Churchrock Chapter that have been identified by Navajo Nation Fish and Wildlife Service as Zone 1: Highly Sensitive/No Development (see Section D, 2.2). These areas tend to be unsuitable to development due to the rough terrain of rugged cliffs and mesas. Designation of these areas as open space will not only protect the wildlife in the Chapter, it may create low-impact recreational opportunities such as hiking and hunting for Chapter members and tourists.

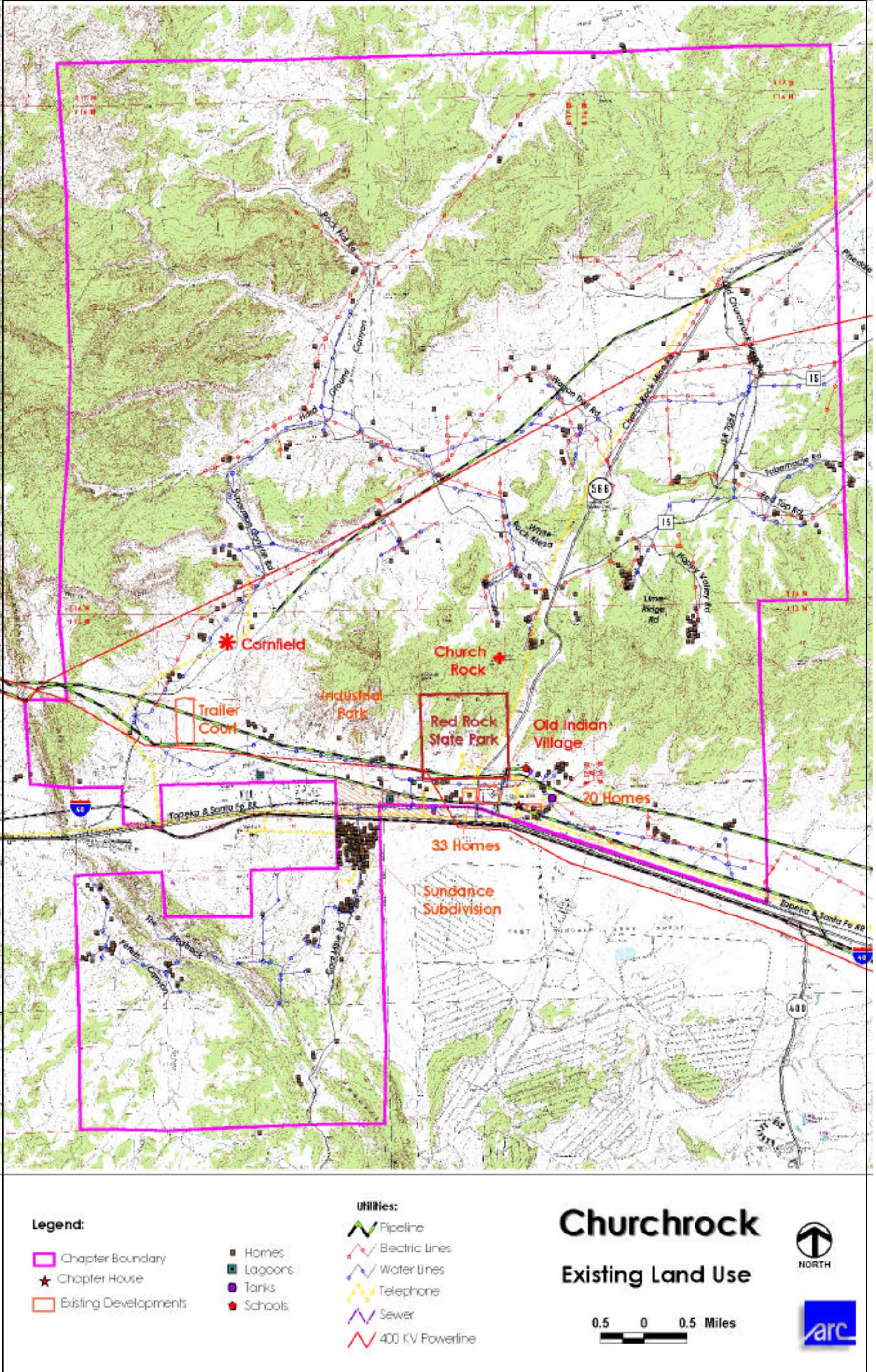
7.7 Other Community Uses

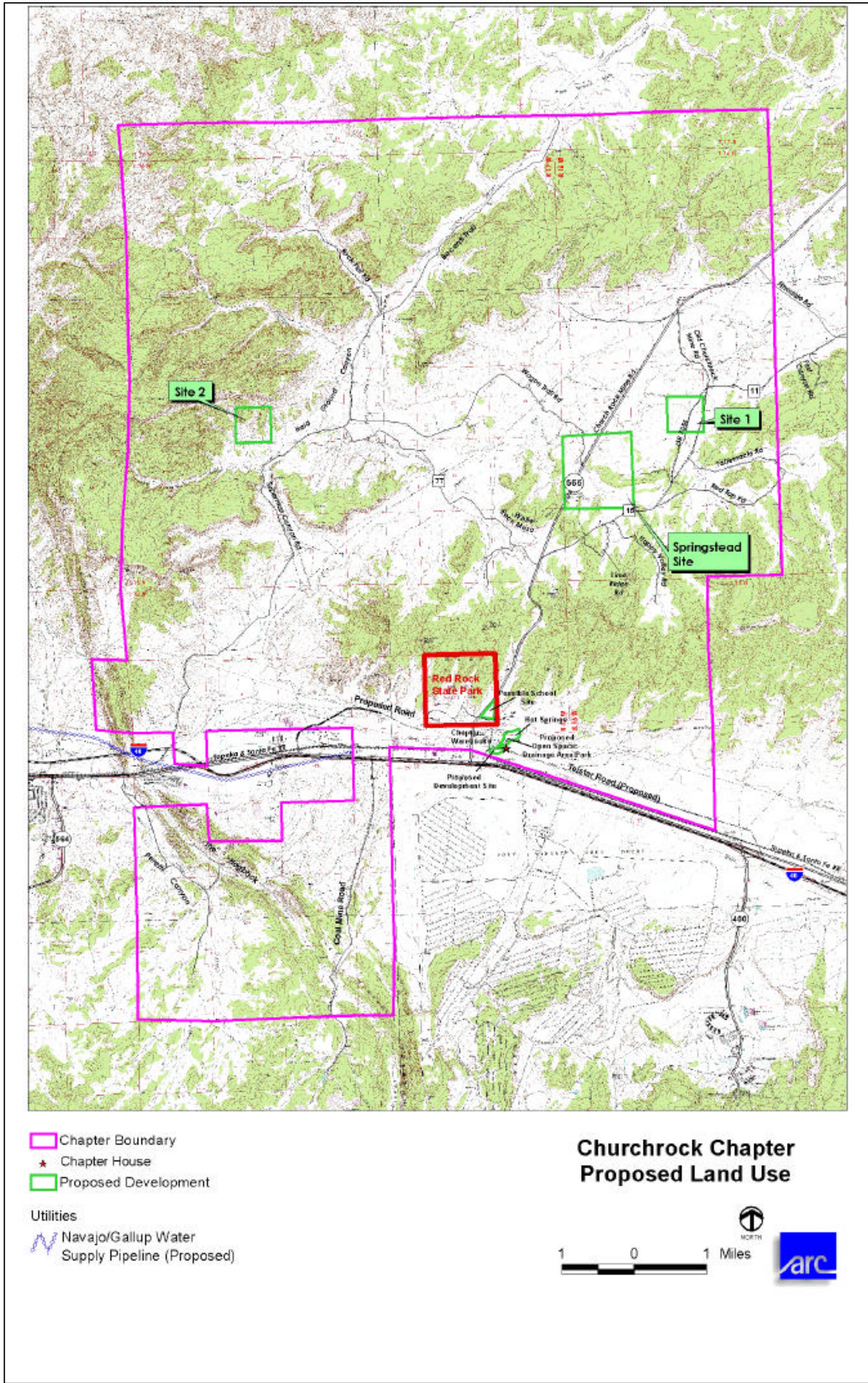
The Chapter is holding discussions with the Fort Defiance Housing Corporation about the possibility of developing a multi-purpose facility at Springstead. This facility might include the public safety facility mentioned in Section 7.2 as well as the proposed recreational facility mentioned in Section 7.6.

Exhibit: 23: Summary of Community and Land Use Projects

	Location	Existing Uses	Acreage	Proposed Uses	Withdrawn
1	Chapter House Compound	Chapter House	1.6 acres	More office space with attached library	Yes
2	Area north of Chapter	Drainage area Hot Springs	20 acres	Drainage/Park/Open space Tourism	yes
3	Site 1	Grazing	158 acres	Housing	BLM
4	Site 2	Grazing	150 acres	Future Housing, scattered or clustered	BLM
5	Site 3: Springstead	Grazing	626 acres	Housing	Private
6	Area south of Chapter House	Vacant land	7 acres	Office building	no
7	Red Rock State Park (eastern)	Vacant land east of Park area	16 acres	Elementary School Headstart Facility	New Mexico State Land
8	Area south of Red Rock State Park	Vacant land	5 acres	Fire station	no

Exhibit 24: Existing Land Use





C. *Infrastructure Analysis*

1.0 **Infrastructure**

This section describes the existing and needed infrastructure in the Churchrock Community. Infrastructure is shown in Exhibit 24.

1.1 **Transportation**

Eighty percent of those who responded to this question on the ARC survey said they had their own vehicles, on which they relied for transportation. One percent carpooled. Nineteen percent used some alternative means of transportation.

Roads

- Existing

An inventory of existing roads is as follows:

State Roads:

- 566 - paved

County Roads:

- 30 - graveled
- 43 - part dirt and part graveled
- 77 - graveled
- Churchrock Elementary School West Access - chip-sealed
- Topeka-Telstar Road - part chip-sealed, part dirt
- Sundance Road - .5 miles has been chip-sealed. The remaining road is dirt or graveled
- Santa Fe Trail Road - closed pending acquisition of a bypass at Sundance
- White Cliff Access Road to Red Rock State Park - dirt
- 15 - dirt.

B.I.A. Roads

- none

- Proposed

The following are projects needed to improve the roads in the Churchrock Chapter. The projects are prioritized by importance, beginning with the first one within each listing.

County Roads - Chip Seal Projects

- 30 - Zuni Drive-In road south to turn-around (funded)
- 77 and Becenti Trail Road from SR 566 to turn-around in Hard Ground Flats (funded)
- Sundance Road from end of pavement to turn-around.

County Roads - Grade and Drain Projects

- 30 - Hassler Road Junction northeast to junction with 77
- Sundance Road turn-around to Amcoal Mine fence
- Telstar Road from end of pavement to Fort Wingate-Overpass (Wingate bus loop/Head Start bus route). Formerly had county approval, but was blocked by someone who built a house in the right-of-way. Need to go back to county for approval and survey what was done.

Surveys Needed

- Telstar Road
- White Cliffs Access Road to Red Rock State Park (Tse Yani Chee Drive)

Gravel

- Churchrock Road - Indian Hills to Sundance (change name to Santa Fe Trail to get tourism/scenic trails funding)
- 15 from junction with SR 566 to Pinedale Junction (There has been discussion that this road may be paved.)

Bridge Stabilization (erosion is wearing away embankment around bridge piers). Requires archaeological and environmental clearances; County would do work afterwards.

- SR 566
- County Road 77
- County Road 43

Transit

- Existing
There is a Navajo Nation Transit Bus Route, Bus Route #5, which runs between Fort Defiance and Gallup. Greyhound Bus Lines also service Gallup. There is no direct bus service in the Chapter.

- Proposed
Nothing is proposed for Churchrock at this time.

Airport

- Existing
The nearest airport to Churchrock is the Gallup Municipal Airport, owned and operated by the City of Gallup. The airport is located three miles west of downtown Gallup. Airline service at the airport is provided by America West Express, a division of Mesa Airlines. There are four flights daily with direct service to Phoenix. Connecting flights allow a Gallup customer to reach any destination in the world. Federal Express provides daily overnight express package service. Other air freight transportation is available. Trained weather observers provide weather information 24 hours a day. The paved 7300' runway has medium intensity lighting, and is able to accommodate corporate jets, turbo prop and commuter aircraft. There are approximately 50 aircraft based at the Gallup Municipal Airport, most of which are hangared. Gallup Flying Service provides air taxi, air ambulance, flight training, and sight-seeing tours. There is a car rental agency located at the airport. The airport covers 359 acres and land is available for commercial development.
- Proposed
Nothing is proposed for Churchrock at this time.

Railroad

- Existing
The following rail services are available in Gallup:
Amtrak: (2) passenger trains going east and west daily.
(2) Package Express shipments daily.
Santa Fe: Daily freight shipments to and from Gallup as requested.
- Proposed
Nothing is proposed for Churchrock at this time.

1.2 Utilities

Gas

- Existing
Liquid propane (LP) gas is the only form of gas service available to Chapter members at this time. The Chapter is interested in tapping into the gas lines running through Chapter lands.
- Proposed
Gas lines are not proposed for Churchrock at this time.

Electric

- Existing
Continental Divide Electric Cooperative in Grants, New Mexico currently serves the Churchrock Chapter under a contract with the Navajo Nation.
- Proposed
A contract between the Navajo Nation and Continental Divide Electric Cooperative allows Continental Divide to provide electricity to 94 unserved homes in the Chapter. An archeological survey has been completed by the Navajo Historic Preservation Office and submitted for approval to the B.I.A. An environmental survey contract has been granted to Jim Analla. Continental Divide and Analla are requesting a contract modification for a breakdown of the contract into smaller components, so that construction can begin where surveys have been completed. The Navajo Nation has not yet responded to the request.

Some of the families on the project list are asking the City of Gallup to provide electricity to the Coyote Canyon (north side of Gallup), Sundance, and Hogback areas. The City of Gallup is conducting surveys to obtain easements in the Continental Divide Service Project Area.

The following electric line projects are prioritized in order of their present status and importance:

- Hassler Valley to Churchrock - Archaeological and environmental clearances have been completed.
- Sundance to the Aamco Coal Mine area -

Archaeological survey has been completed. An environmental survey is needed for BLM lands surrounding the mine.

- Hogback and Peretti Canyon - no firm proposals or contracts have been completed as of this writing.

Water

- Existing

The Navajo Tribal Utility Authority provides domestic water through pipelines from a well in Pinedale. According to NTUA, there is sufficient water to meet current and future domestic use needs. Additional water needs for commercial and industrial development must be evaluated on a case-by-case basis.

Churchrock has a critical need for water for agricultural use due to the area's semi-arid climate with its lack of rainfall and periodic droughts. There are additional needs for water for domestic use, commercial and industrial use, and agricultural purposes. Another potentially serious situation is the lack of water available for fire protection.

An inventory of windmills, dams, and artesian water in the Chapter should be conducted to determine other existing water sources.

- Proposed

Navajo-Gallup Water Supply Project:

The Chapter passed a resolution supporting the Navajo-Gallup Water Supply Project from the San Juan River. According to the draft *Technical Memorandum: The Navajo-Gallup Water Supply Project*, "A long-term, high quality municipal and industrial water supply is needed to improve the standard of living for current and future populations and to support economic growth of the Navajo Nation, the Navajo Agricultural Products Industry (NAPI), and the City of Gallup. The Navajo-Gallup Water Supply Project has evolved over four decades as a major infrastructure initiative to supply approximately 36,000 acre-feet of water annually from the San Juan River to meet these needs."

In addition, a March 2000 draft report on the Navajo-Gallup Water Supply Project describes the short term and long term objectives of the Project for the Churchrock Chapter. According to the report, it is predicted that the Churchrock, Bread Spring, Chichiltah, Iyanbito, Pinedale and Red Rock Chapters will require 4,822 acre-feet of water annually by 2020.

The Navajo-Gallup Water Supply Project has proposed a routing for a lateral line from the main trunkline at Yah-ta-hey to the Churchrock and Iyanbito Chapters. Approximately 6,150 acre-feet per year could be piped easterly. Construction on the project is set to begin in late 2002, with final buildout by 2006.

In order to meet the short-term needs of the Churchrock and Iyanbito Chapters, the report proposes conveying groundwater from the east.

Another project within the Chapter involves planning for water harvesting from rooftops for landscaping in the Chapter. Volunteers from Vista and Americorp are working on the project.

The Chapter is also involved in developing a water conservation plan as part of their involvement in the statewide New Mexico Water Plan.

Sewer

- Existing

There are three sewer lagoons located within the Churchrock Industrial Park that serve the housing in the Chapter compound area and the Sundance subdivision.

Other housing units within the Chapter that are not served by water and sewer systems are on septic systems.

- Proposed

There are no new proposals for sewer lines; however, the new housing replacing Indian Village will have an impact on the existing infrastructure. This new housing will be hooked into the existing line serving the NHA subdivisions and Chapter compound area.

Because the existing sewer lagoon near Red Rock State Park is near capacity, Churchrock and the Rehoboth-Red Mesa Foundation are working together on developing a new sewer treatment plant.

Telephone

- Existing

Currently, Qwest is providing telephone service within the Chapter. According to Qwest, 85 to 90 percent of households in the United States, including Pueblos in New Mexico, have telephones. By contrast, only 12 to 15 percent of people in the Navajo Nation have telephones.

- Proposed

Qwest is offering discounted phone rates through its Tribal Lifeline/Tribal Link-up program. Under the plan, the Navajo Nation has approved a blanket right-of-way for Qwest to run phone lines across tribal lands. Churchrock Chapter passed a resolution approving the plan on August 01, 2001.

The Tribal Lifeline provides reduced monthly charges to telephone customers who qualify under low income guidelines (service is being offered at \$1.00, \$4.00 or \$7.00 per month).

Tribal Link-Up provides reduced connection charges to telephone customers who qualify. Up to \$5,000 per house is available to get lines close enough to provide service. Beyond that distance, the customer is required to pay any additional costs. There is additional money available in the Rural Extension Fund (under the State of New Mexico Public Regulatory Commission), which can raise the \$5,000 up to \$10,000 to \$15,000.

With copper service lines to homes, additional technology is available to the customer, including voice dial-up, 56K data transmission, and T-1 lines to commercial or government facilities. Fiber optic cables are being laid within the Eastern Agency chapters as the backbone to the copper service lines.

Qwest expects the project to take eighteen months to complete.

Solid Waste

- Existing

There is substantial air and water pollution from illegal dumping, toxic and hazardous waste, wind and water erosion due to overgrazing.

- Proposed

The Chapter would like to implement a community education program, to provide a community solid waste transfer program for the Chapter, and to assist in cleaning up open dumps.

Churchrock members in the Sundance area who pay water bills to the City of Gallup receive vouchers to use the city transfer station; however, at the time of this writing these residents are denied access at the transfer stations when they have tried to redeem the vouchers. Community members would like to see this issue resolved.

There may be opportunities for development of trash pickup at scattered housing sites at a reasonable cost as a local business venture.

2.0 Analysis of Individual Sites

This section assesses the three proposed housing sites in terms of their need for additional infrastructure (Exhibit 25).

Several sites for potential housing were chosen for initial review in the Churchrock Chapter. Through research and community involvement, some sites were eliminated from consideration due to conflicts or problems such as potential for flooding, grazing issues, terrain issues, potential hazards such as nearby gaslines, and potential other uses.

2.1 Site One (1): T16N, R16W, Section 20

Site One consists of 158 acres located approximately five miles northeast of the Chapter House. The site is square-shaped.

Site Accessibility

McKinley County Road 15, a graded dirt road, runs through the eastern half of the site.

Site Related Aspects

There are no existing buildings or structures noted on the site.

Site Utilities

- **Water**
A water line enters from the west side of the property and intersects with a north-south running line within the site.
- **Sewer**
No sewer service is available on the site. A subdivision-type housing development will require the construction of a sewer lagoon. A four- to six-acre cell will serve between 20 and 160 homes. A 1,000 foot setback from the lagoon is required.
- **Gas:**
The closest gas lines are located south of the site. There is the possibility of extending gas lines to the site, especially if gas lines are extended to the Springstead site which is nearby. If not, homes built here would most likely be serviced by individual propane tanks.

- **Electrical:**
An electric line ends just inside the western border of the site. Other electric lines run relatively close to the northern (~600') and southern (~2,600') borders.
- **Telephone:**
There is a telephone line approximately 2,250' northwest of the site.

Special Site Development Requirements

This site appears to be well suited for development as there are utilities available and the site has good accessibility. A sewer lagoon will need to be built as mentioned.

Legal Considerations:

The site is located on BLM land which is marked for disposal. An agreement such as a trade, purchase, or otherwise will need to be worked out between the Navajo Nation and the BLM. Once the land is acquired, the Chapter will be required to proceed with the proper land withdrawal process and obtain utility right-of-ways from chapter members.

Site 1



Exhibit 26: Housing Site 1



2.2 Site Two (2): T16N, R17W, Section 20

Site Two consists of 150 acres located approximately five and one-quarter miles northwest of the Chapter House. The site is square-shaped.

Site Accessibility

There are several unmarked dirt roads within the site. Superman Canyon Road lies approximately 1,200' to the southeast of the site.

Site Related Aspects

There are no existing buildings or structures noted on the site.

Site Utilities

- **Water:**
The closest water lines are approximately 1150' southeast from the site border.
- **Sewer:**
No sewer service is available on the site. A subdivision-type housing development will require the construction of a sewer lagoon. A four- to six-acre cell will serve between 20 and 160 homes. A 1,000 foot setback from the lagoon is required.
- **Gas:**
The closest gas lines are located south of the site and a line extension might be a possibility. Otherwise, homes built here would most likely be serviced by individual propane tanks.
- **Electrical:**
The closest electric lines are approximately 300' southeast from the site border.
- **Telephone:**
The nearest telephone lines are approximately 1.5 miles south of the site.

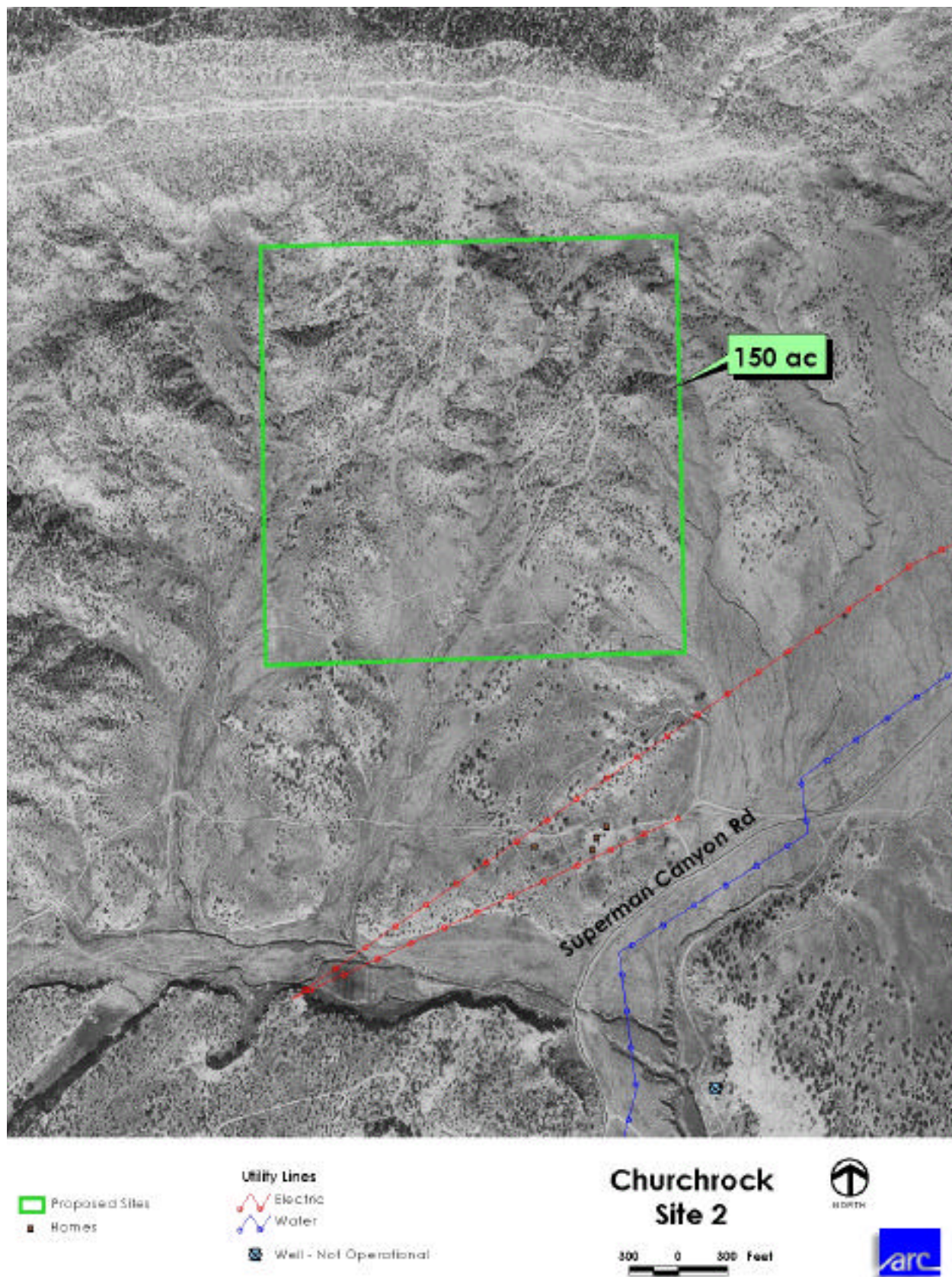
Special Site Development Requirements

Due to the nature of the terrain, only a portion of the site may be suitable for housing.

Legal Considerations

The site is located on BLM land which is marked for disposal. An agreement such as a trade, purchase, or otherwise will need to be worked out between the Navajo Nation and the BLM. Once the land is acquired, the Chapter will be required to proceed with the proper land withdrawal process and obtain utility right-of-ways from chapter members.

Exhibit 27: Housing Site 2



2.3 Site Three (3) Springstead: T16N, R16W, Section 30

Site Three, the Springstead Subdivision, consists of 626 acres located approximately three and one-half miles northeast of the Chapter House. The site is square-shaped.

Site Accessibility

NM 566 passes through the western portion of the site.

Site Related Aspects

There are signs of possible hazardous materials contamination (a building complex with unidentified materials lying around), and illegal dumping on the site.

Site Utilities

- **Water:**
There is a water line running across the southeastern corner of the site. Another water line is located approximately 375' from the northeast corner of the site.
- **Sewer:**
No sewer service is available on the site. A subdivision-type housing development will require the construction of a sewer lagoon. A four- to six-acre cell will serve between 20 and 160 homes. A 1,000 foot setback from the lagoon is required.
- **Gas:**
The closest gas lines are located south of the site and a line extension might be a possibility. Otherwise, homes built here would most likely be serviced by individual propane tanks.
- **Electrical:**
There are electric powerlines located in the western half of the site, as well as a powerline that runs along the eastern border of the site.
- **Telephone:**
There is a telephone line running across the northwest corner of the site.

Special Site Development Requirements

The relatively level area of the site makes it one of the more suitable areas for housing development in the Chapter.

Legal Considerations

The site is located on private land, which is being developed by the Fort Defiance Housing Corporation. As such it will be subject to the subdivision laws and regulations of the State of New Mexico. Affordable housing will be made available to Churchrock Chapter members. This will depend, however, on the results of tests being conducted on possible uranium contamination of groundwater in the area.

Exhibit 28: Springstead Site



2.4 Site Development Costs

A soils test is recommended to determine the extent of expansive soil under a site, the bearing capacity of the soil, and the best engineering means for overcoming limitations.

Clay Soils

The presence of expansive soils, those with a high clay content, can increase the cost of development significantly. These types of soils are unstable when saturated. The cost of preparing the soils for development can be extreme.

A drainage study and site development plan are also recommended. These documents are necessary to ensure proper site drainage. Proper drainage from the site will help prevent future saturation of the soils.

Development costs will need to include the possibility of excavation of the expansive soils from a building site and replacement with engineered fill. On average, the cost for excavation is \$3 to \$4 a cubic yard. Replacement with an engineered fill costs \$17 to \$18 a cubic yard. For a house that is approximately 1500 square feet, with four feet of expansive soil below the surface, it would cost between \$5,500-\$6,500 to prepare the earth for the pouring of the concrete foundation. If the expansive soil extends beyond four feet, excavation becomes an issue and costs increase.

Another option would be to use a pier and beam foundation. In this type of foundation, rather than a slab of concrete as the foundation, structural columns are sunk into the ground until they reach solid bedrock. The columns are then filled with a steel cage and concrete. The columns are level across the top, usually two to three feet above the ground. Beams of wood are placed over the columns. The pier and beam foundation is then covered with a sheet of plywood and the framework for the first floor is ready to be built. Pier and beam foundations can at times be more cost-effective than excavation, depending upon the amount of expansive soil that needs to be excavated or over-excavated, the type of clay that is present, the cost locally of engineered fill, and many other factors, some of which are addressed in soils tests.

Rocky Soils

Rocky soils can easily be dealt with when building a foundation. If the soil is made up of loose rock, removal of the rock and then placement of the foundation on solid ground is the easiest approach. If the site is solid rock, it is best to build up the ground with a engineered fill so that the anchors can be stable, usually about two feet deep. Once the concrete slab is poured, it can then be sloped to ensure proper drainage. If the condition of the land is extremely rocky, costs of infrastructure increase by approximately 10%.

Site Development

When developing a subdivision, it is more cost-effective to complete all of the earthwork at one time. This allows larger equipment to be used, and is a more effective use of time. When constructing a single unit or scattered units, smaller machines must be used and work is done more slowly.

D. Suitability Analysis

The suitability analysis begins with a discussion of the natural resources of the Chapter, including its geology and soils, water resources, vegetation, and threatened and endangered species.

Following this overview is a more detailed analysis of each potential housing site's cultural and environmental suitability.

Cliffs in the Churchrock Chapter

1.0 OVERVIEW OF RESOURCES

1.1 Natural Resources

- **General**

The Churchrock Chapter lies within Navajo Reservation land in McKinley County, in northwestern New Mexico. The elevation ranges from 6650 to 7500 feet above sea level. The dominant landform to the west is the Hogback, a ridge of steeply dipping sedimentary rocks. The area to the south is Fort Wingate and Cibola National Forest land. Six Mile Canyon lies to the southeast and east of the Chapter. The low alluvial floodplain of the south fork of the Rio Puerco lies both north and south of I-40.

Soils

Two major soil associations occur within the Chapter: Moriarty-Prewitt and Thurloni-Savoia-Conchos. The Moriarty-Prewitt association occurs mainly in valley bottoms and on flood plains and terraces along intermittent drainages and is dominated by soils that are slightly to moderately saline and alkali-affected. These soils occupy nearly level to gently sloping landscapes and are formed in fine-textured alluvium weathered principally from shale and other sedimentary materials. Although occurring on gentle slopes, they are susceptible to erosion. The soils in this association have very slow permeability and fine textures.



The Thurloni-Savoia-Conchos association occurs in a variety of topographical settings ranging from nearly level to strongly sloping. The soils in this association are developed residually in parent materials weathered from sedimentary rocks, including shale, sandstone, and limestone or in alluvial and eolian sediments. The major soils are moderately deep, but shallow soils and shale and rock outcrops are also included in this association. The soils in this association are susceptible to erosion.

Due to the possibility of erosion with the soils in the Churchrock Chapter, special attention when building should be given to drainage to avoid potential problems.

Vegetation

The project area consists of piñon-juniper woodland with a big sagebrush understory. A few ponderosa pine also grow on the north and east slopes at the higher elevations. Additional vegetation includes fringed sage, fourwing saltbush, rose heath, snakeweed, summer cypress, winterfat, pale wolfberry, prickly-pear cactus, banana yucca, various wildflowers, and mixed grasses. The vegetative biome is classified as Great Basin Desert Scrub, located on the edge of the Great Basin Conifer Woodlands.

Mariposa lilies in bloom in Churchrock



Climate

Annual rainfall ranges from 10 to 20 inches, and the annual frost-free days range from 140 to 170 days.

- **Water Resources**

Floodplain/Flood Hazard/Drainage

Executive Order 11988, Floodplain Management, requires that any potential impacts to floodplain areas be studied, assessed, and identified to reduce the risk of flood loss; to minimize the impact of floods on human safety, health, and welfare; and to restore and preserve the natural and beneficial values served by floodplains. Therefore, project planning must ensure that the proposed construction will be compatible with the floodplain areas by identifying potential impacts and ways to mitigate them.

Unincorporated areas of McKinley County have been mapped by the U.S. Department of Housing and Urban Development (HUD) on Flood Hazard Boundary Maps. Community Panel Numbers 350039 0020 A, 350039 0021 A, 350039 0022 A, 350039 0029 A, 350039 0030 A and 350039 0031 A show existing flood areas and their associated drainage in portion of the Chapter. The Zone A floodplain boundary, comprising special flood hazard areas inundated by the 100-year flood, where no base elevations have been determined, encompasses a majority of the Chapter's area around 6650 feet, north and south of I-40.

Surface runoff within the project area is primarily ephemeral and comes as runoff from storm water, most of which is provided by summer thunderstorms. Three main drainage channels traverse the Chapter and convey substantial storm water flows. These drainage areas and arroyos are tributary to a main drainage basin, the south fork of the Rio Puerco. These arroyos and others located north and south of I-40 are considered Waters of the United States and if any type of construction or alteration of the drainage area will require a clearance and type of Clean Water Act (CWA) Section 404 permit issued by the U.S. Army Corps of Engineers (COE).

Water Quality

Wells serve the Chapter House and residents in the general area. Glorieta sandstone/San Andres limestone forms the

major aquifer of the region. There is no evidence that the water from wells in this aquifer does not meet current water quality standards. The flow of water in the aquifer is from the southeast to the northwest. Groundwater in the vicinity of the Chapter house can be expected to be encountered at approximately 100 to 150 feet.

Wetlands

Wetland systems and classes are based on criteria set forth in the Clean Water Act (CWA) of 1977, Executive Order 11990, and other regulatory materials. There are known wetlands within the Chapter area, but they have not been delineated.

- **Air Quality**

Churchrock Chapter is located in western McKinley County, which has been designated by the Environmental Protection Agency (EPA) as a rural attainment area, indicating that ambient air quality meets or exceeds the National Ambient Air Quality Standards (NAAQS). Western McKinley County is located within New Mexico state designated Air Quality Control Region (AQCR) Number 1, which corresponds to EPA Region 14, the Four Corners Interstate Region.

An ***endangered species*** is one that is in danger of extinction throughout all or a significant portion of its range.

A ***threatened species*** is one that is likely to become endangered in the foreseeable future.

A ***proposed or candidate species*** is one being considered for listing as threatened or endangered.

An ***extirpated species*** is one that has been eliminated from its range, usually in a specific geographic area.

- **Living Resources**

Threatened and Endangered Species/Species of Concern
Federal and Navajo threatened or endangered species are protected by law. Species currently listed as proposed, threatened, and endangered by the U.S. Fish and Wildlife Service (USFWS) and listed as endangered and under consideration by the Navajo Fish and Wildlife Department (NF&WD) were reviewed during this planning study.

No federal or Navajo listed plant or animal species was seen during a general reconnaissance of the potential housing sites, and few are likely to occur within the project limits. However, there is suitable habitat and/or foraging area within the general area, and some species of concern could potentially occur. A chart showing these rare animals and plants is found on the following page:

Exhibit 29: Threatened and Endangered Species

**CHURCH ROCK CHAPTER
McKinley County
Federal and Navajo Listed Species**

		STATUS	
Common Name	Scientific Name	Federal	Navajo
Amphibians			
Western Chorus Frog	<i>Pseudacris triseriata</i>		
Northern Leopard Frog	<i>Rana pipiens</i>		Endangered
Birds			
Northern Goshawk	<i>Accipiter gentilis</i>		Consideration
Golden Eagle	<i>Aquila chrysaetos canadensis</i>		Endangered
Ferruginous Hawk	<i>Buteo regalis</i>		Endangered
Belted Kingfisher	<i>Ceryle alcyon</i>		Consideration
Mountain Plover	<i>Charadrius montanus</i>	Threatened	Consideration
Yellow-billed Cuckoo	<i>Coccyzus americanus occidentalis</i>		Endangered
Band-tailed Pigeon	<i>Columba fasciata fasciata</i>		Consideration
Yellow Warbler	<i>Dendroica petechia</i>		Consideration
Southwestern Flycatcher Willow	<i>Empidonax traillii extimus</i>	Endangered	Endangered
American Peregrine Falcon	<i>Falco peregrinus anatum</i>		Consideration
Bald Eagle	<i>Haliaeetus leucocephalus</i>	Threatened	
Sora	<i>Porzana carolina</i>		Consideration
Mexican Spotted Owl	<i>Strix occidentalis lucida</i>	Threatened	Endangered
Tree Swallow	<i>Tachycineta bicolor</i>		Consideration
Fish			
Zuni Bluehead Sucker	<i>Catostomus discobolus yarrowi</i>	Species of Concern	Consideration
Mammals			
Pronghorn	<i>Anilocapra americana americana</i>		Endangered
Navajo Mogollon Vole	<i>Microtus mogollonensis navaho</i>	Species of Concern	Consideration
Western Small-footed Myotis Bat	<i>Myotis ciliolabrum melanorhinus</i>	Species of Concern	
Long-eared Myotis Bat	<i>Myotis evotis evotis</i>	Species of Concern	
Occult Little Brown Myotis Bat	<i>Myotis lucifugus occultus</i>	Species of Concern	
Fringed Myotis Bat	<i>Myotis thysanodes thsanodes</i>	Species of Concern	
Long-legged Myotis Bat	<i>Myotis volans interior</i>	Species of Concern	
Reptiles			
Northern Sagebrush Lizard	<i>Sceloporus graciosus graciosus</i>	Species of Concern	
Plants			
Naturita Milkvetch	<i>Astragalus naturitensis</i>		Consideration
Acoma Fleabane	<i>Erigeron acomanus</i>	Species of Concern	Endangered
Zuni Fleabane	<i>Erigeron rhizomatus</i>	Threatened	
Sivinski's Fleabane	<i>Erigeron sivinskii</i>	Species of Concern	Consideration
Parish's Alkili Grass	<i>Puccinellia parishii</i>	Species of Concern	Consideration

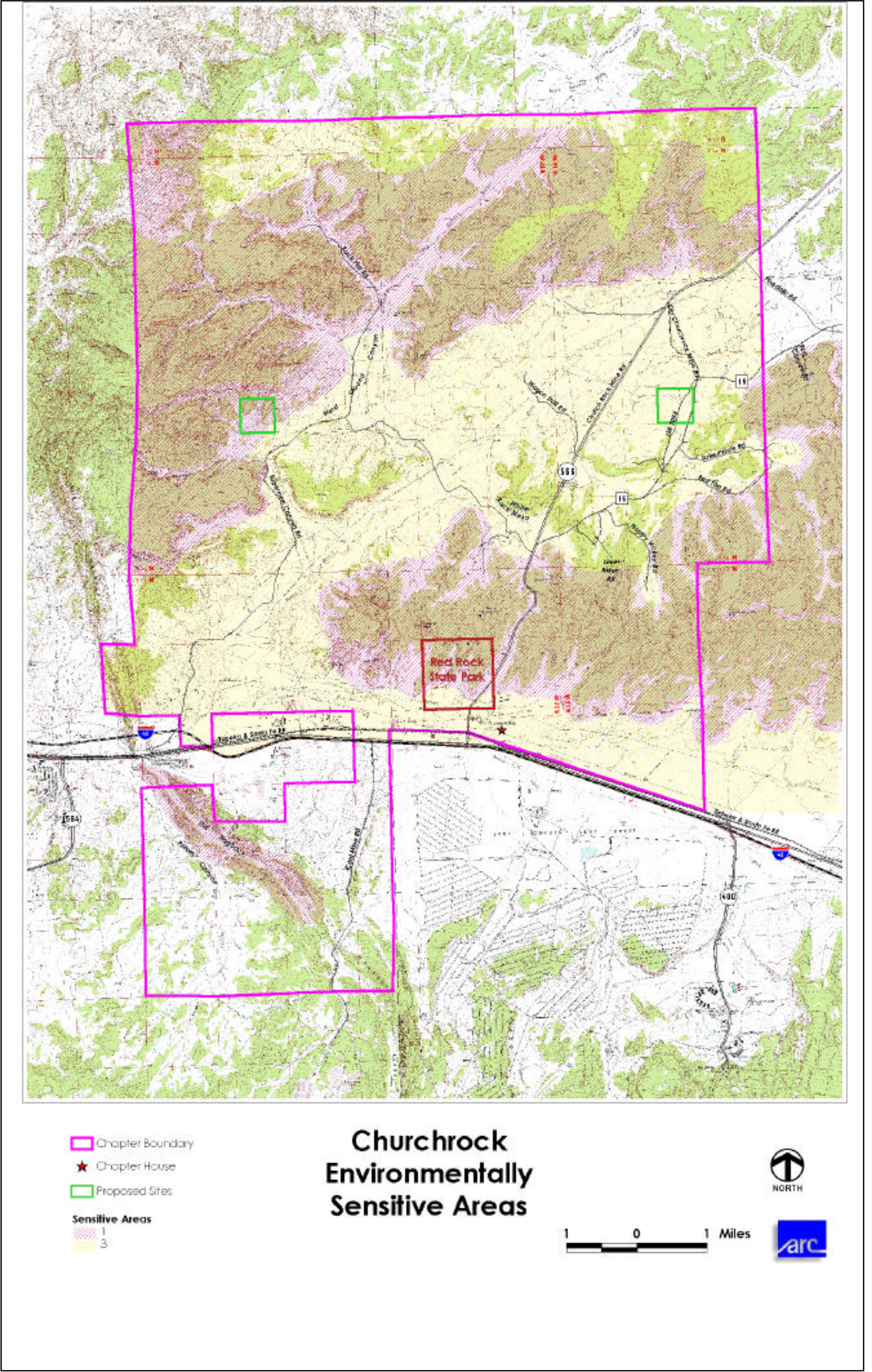
1.2 Historic and Cultural Resources

A cultural resources inventory, including a review of previous research and a site files check, was completed for the potential housing areas. No archaeological, architectural, or ethnographic resources were identified for these areas. However, when a particular site is chosen, a Class III intensive pedestrian survey and ethnographic research must be completed.

1.3 Visual Resources

Visual resources are those physical features that make up the visible landscape, including land, water, vegetation, and human-made elements. No adverse impacts to visual resources are anticipated from the construction of any housing units to be built on the proposed sites.

Exhibit 30: Environmentally Sensitive Areas



2.0 ANALYSIS OF INDIVIDUAL SITES

While several sites were looked at within the Churchrock Chapter, including tribal trust land, they were not selected due to a number of problems. Potential flooding and the presence of natural gas lines are the main obstacles to development on these sites. A total of seven sites were reviewed. Four sites were rejected and the following are recommended for housing within Churchrock Chapter.

2.1 Site One (1): 160 acres

Geology/Soils

Five different soil types are present on this site:

- 230: Sprank-San Mateo-Zia Association - This association consists of well-drained to somewhat excessively drained soils with low to high shrink-swell potential.
- 241: Mentmore - This soil type is well-drained with a moderate shrink-swell potential.
- 245: Buckle-Gapmesa-Barboncito Association - This association consists of well-drained soils with low to moderate shrink-swell potential.
- 255: Fairview - This soil type is well-drained.
- 352: Zia Sandy Loam - This soil type consists of somewhat excessively drained soil with low shrink-swell potential. This soil type appears to be the most suitable for building on in this site.

Surface Water/Drainage

There is a large arroyo bisecting the northeast portion of the site. There are other drainage problems and the potential for sheet flooding in the northern area. There is good drainage on the southeastern half of the site, where the land slopes to the eastern and northern portions.

Vegetation

Vegetation appears to be typical for the Churchrock Chapter as described earlier in this section.

Wildlife

While endangered species may be present on site as previously described in this section, none were noted on a site visit. Bluebirds were observed flitting about the brush and grasses.

Environmentally Sensitive Areas

This site is located in a Navajo Nation Department of Fish and Wildlife Zone 3: Low Sensitivity/Unrestricted Development. This zone has a low, fragmented or unknown concentration of species of concern.

Culturally Significant Areas/Traditionally Sensitive Areas

In the northeast portion of the site there appears to be a traditional ceremonial area that should be avoided.

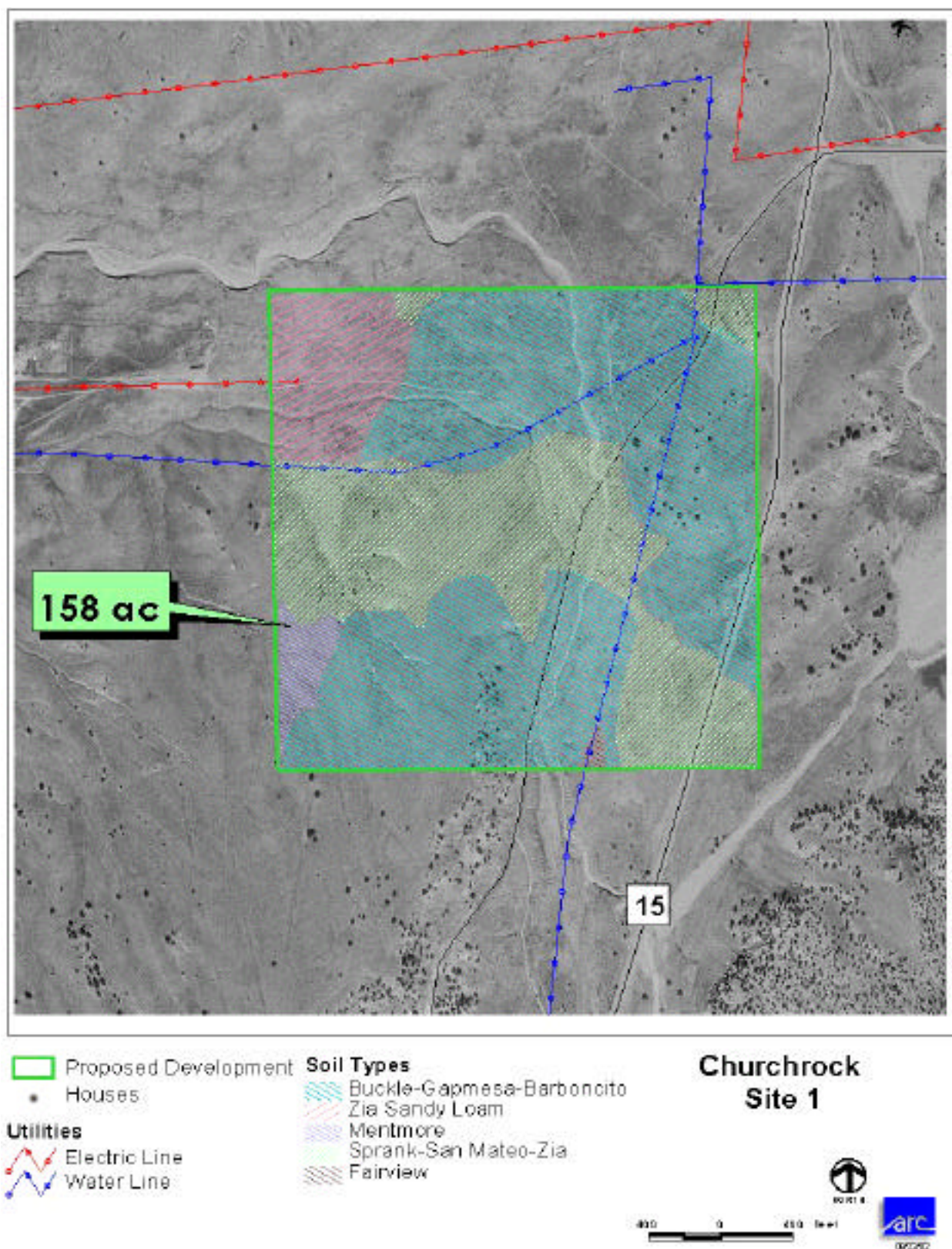
Recommendations

This property is currently managed by the BLM, which has slated it for disposal. The property would have to be acquired from the BLM for use by the Chapter. Due to the land status, it is recommended that acquisition of this site be actively pursued by the Navajo Nation. The site should be reserved for future housing for the Churchrock Chapter.

Site 1



Exhibit 31: Site 1 Soils



2.2 Site Two (2): 160 Acres

Geology/Soils

Two different soil associations are present on this site:

- 245 - Buckle-Gapmesa-Barboncito Association - This association consists of well-drained soils with a low to moderate shrink-swell potential. If the topography is not too rugged, this soil type appears to be well-suited for building.
- 258 - Eagleeye-Atchee Association - This association consists of well-drained soils with a moderate to high shrink-swell potential making it less suitable for building.

Surface Water/Drainage

There are two large arroyos draining the site. Due to these features and the rugged terrain on the northern portion of the site, drainage issues must be carefully addressed before building.

Vegetation

Vegetation appears to be typical for the Churchrock Chapter as described earlier in this section.

Wildlife

There may be endangered or threatened species on this site as the following information on sensitive area indicates.

Environmentally Sensitive Areas

The majority of the land in this site is located in a Navajo Nation Department of Fish and Wildlife (NNF&WD) Zone 1: Highly Sensitive/No Development. This zone has the highest concentration of endangered, rare and sensitive plant, animal and game species, and therefore the best habitat for species on the Navajo Nation. To protect the Navajo Nation's most sensitive species and habitats for plants and animals, the NNF&WD recommends no further business or residential development, permanent, temporary, or seasonal. A Biological Evaluation (BE) would have to be conducted by NNF&WD before any development could proceed.

The southeast portion of the site is located in Zone 3, which is an area that has a low, fragmented or unknown concentration of species of concern. Species in this area

may be locally abundant on 'islands' of habitat, but islands are relatively small, limited in number and well spaced across the landscape. Small-scale development to serve the private needs of individuals, such as homesites and service lines for utilities, can proceed without the development of a BE. However, documentation of the development shall be submitted to NNF&WD for its files. All other development requires preparation of a BE.

Culturally Significant Areas/Traditionally Sensitive Areas

A record search indicates no culturally significant or traditionally sensitive areas.

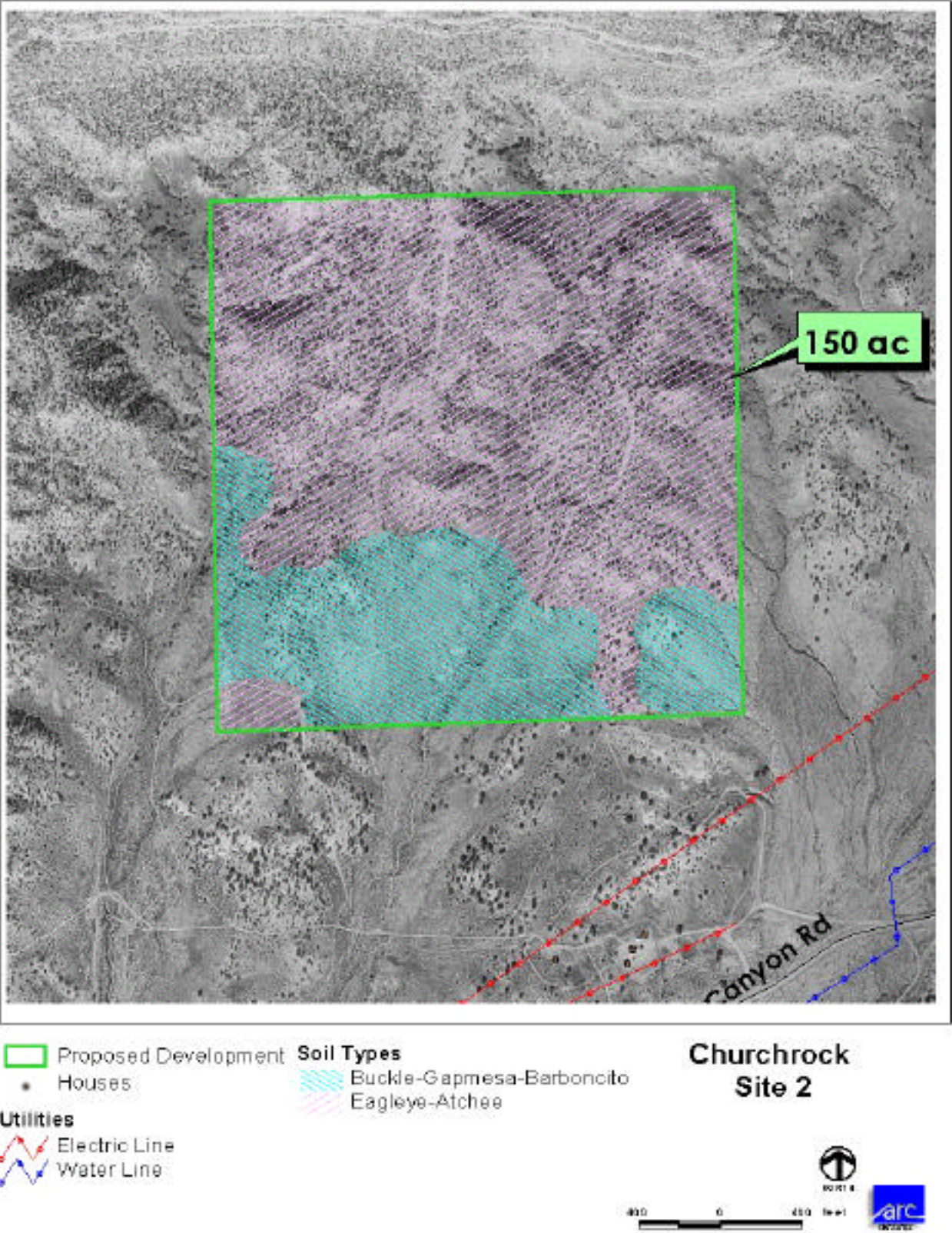
Recommendations

Any proposed development within Zone 1 shall be submitted to the NNF&WD for review and comment. The NNF&WD 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. As such, any proposed housing plan for this area would need their approval.

This property is currently managed by the BLM, which has it slated for disposal. The property would have to be acquired from the BLM for use by the Chapter. Due to the land status and restrictions mentioned above, it is recommended that this site be removed from consideration as a housing area at this time; however, it should be reserved for possible future use by the Chapter.

The data request and assessment of species of concern is intended to provide a summary of the current information that is on file with the Navajo Nation Natural Heritage Program. The report is not intended to represent an intensive survey of threatened or endangered species within the study area.

Exhibit 32: Site 2 Soils



2.3 Site Three (3) Springstead: (626 acres):

Geology/Soils

Two different soil associations are present on this site:

- Camborthids-Torriorthents - Shallow to moderately deep soils of canyons, cliffs and mesas. Runoff is slow and the hazard of erosion is moderate
- Rockland-Torriorthents-Haplargids - Well-drained, shallow soils and rock outcrop on hills and low mountains in hot, arid areas. Haplargids have a high shrink-swell potential.

Surface Water/Drainage

There is a large arroyo bisecting the northeast portion of the site.

Vegetation

Vegetation appears to be typical for the Churchrock Chapter as described earlier in this section.

Wildlife

While endangered species may be present on site as previously described in this section, none were noted on a site visit. Two coyotes, a piñon jay, and a crow were observed; however, none of these is an endangered or threatened species.

Environmentally Sensitive Areas

This site is located in a Navajo Nation Department of Fish and Wildlife Zone 3: Low Sensitivity/Unrestricted Development. This zone has a low, fragmented or unknown concentration of species of concern.

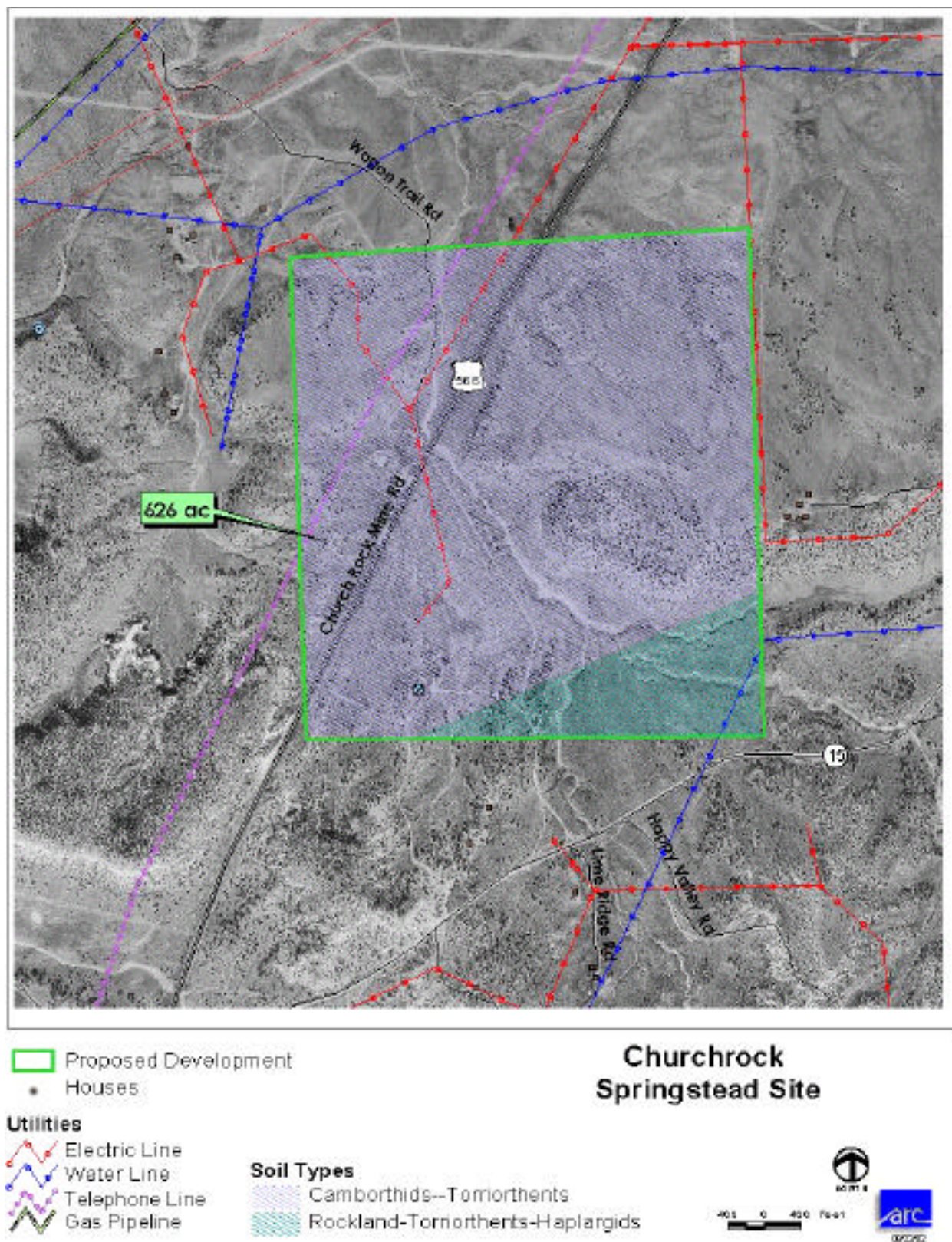
Culturally Significant Areas/Traditionally Sensitive Areas

No archaeological, architectural, or ethnographic resources of significance were identified on a site visit.

Recommendations

The relatively level area of the site makes it one of the most suitable areas for housing development in the Chapter. This will depend, however, on the results of tests being conducted on possible uranium contamination of groundwater in the area. If the results are favorable and development proceeds, the Chapter should work with Fort

Exhibit 33: Site 3 Soils



Defiance Housing Corporation to ensure that a wide variety of housing opportunities are available on this site to Chapter members

The data request and assessment of species of concern is intended to provide a summary of the current information that is on file with the Navajo Nation Natural Heritage Program. The report is not intended to represent an intensive survey of threatened or endangered species within the study area.

E. Land Use Plan

The Land Use Plan for Churchrock Chapter is comprised of three sections:

- E.1 Recommendations
- E.2 Implementation
- E.3 Future Land Use Map

In this section recommendations are made for prioritizing sites for housing development. These recommendations are based on each site's infrastructure and environmental assessments as well as comments from community members.

E.1 Recommendations

This section contains a description of the recommended housing sites as shown in Exhibit 13. The sites are evaluated according to their suitability as potential housing areas. A number of areas were looked at in the chapter. Much of the Tribal Trust land within the Churchrock Chapter is unsuitable for housing development due to a number of factors including the rough topography of the area, two major gas pipelines running across the Chapter, and mine contamination. There is suitable land within the Chapter boundaries owned by the BLM, which has already marked the lands for disposal.

E.1.1 Recommended Housing Sites

This subsection presents summary information about each recommended site. Each description is followed by site map on the next page.

First-ranked Site: Site 1

Land Status: Bureau of Land Management

Acreage: 158 acres

This site appears to be well suited for housing development, with minimal environmental impacts. Development will depend, however, on the results of tests being conducted on possible uranium contamination of groundwater in the area. There are utilities available on or close-by the site, and the site has good accessibility (McKinley County Road 15, a graded dirt road, runs through the eastern half of the site).

Site 1



Exhibit 34: Site 1



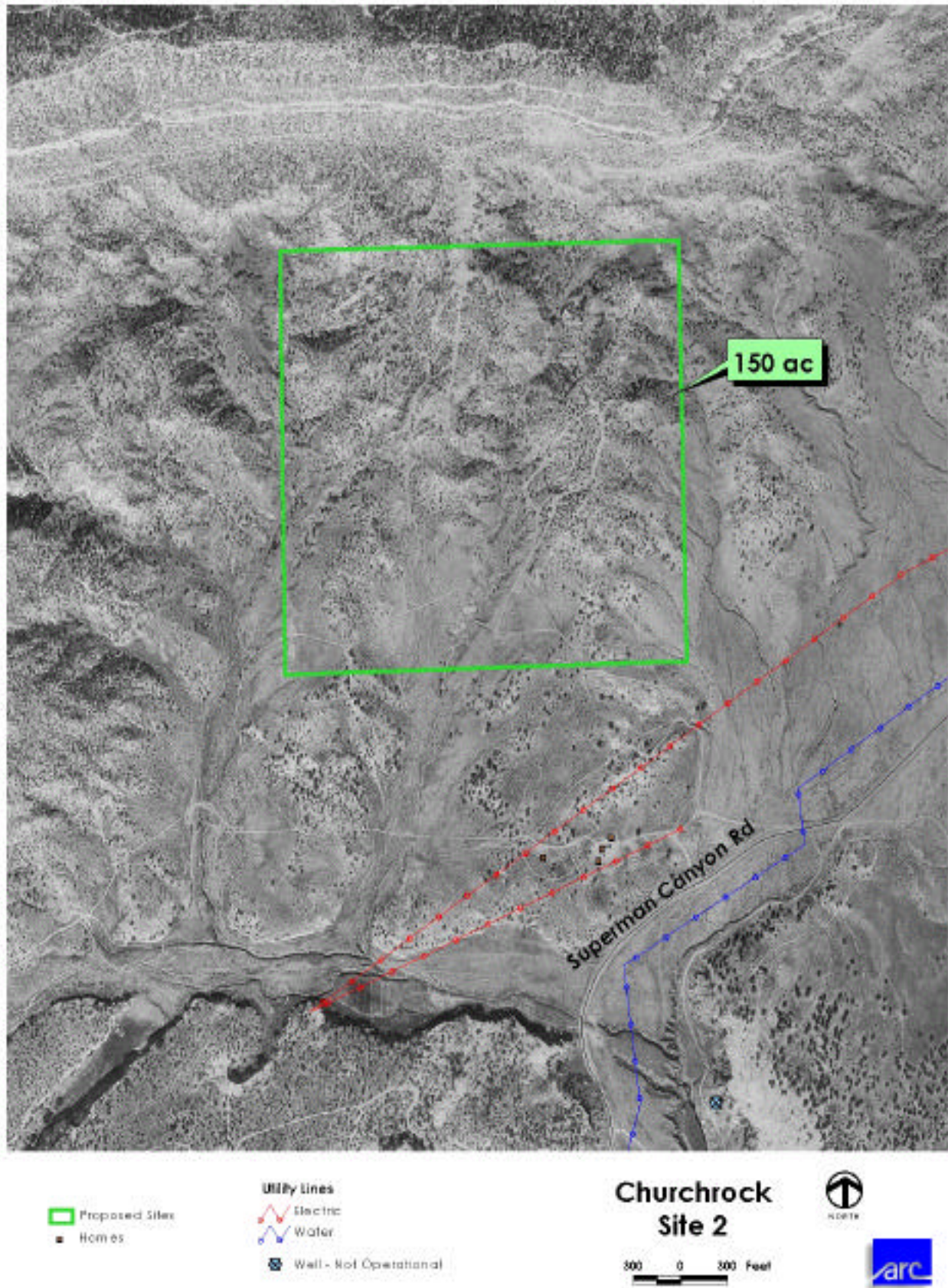
Second-ranked Site: Site 2

Land Status: Bureau of Land Management

Acreage: 150 acres

This site is currently managed by the BLM, which has it slated for disposal. The property would have to be acquired from the BLM for use by the Chapter. Due to the land status and rough terrain that exists here, it is recommended that this site be removed from consideration as a housing area at this time; however, it should be reserved for possible future use by the Churchrock Chapter, which should coordinate with the BLM on long-term planning for the site.

Exhibit 35: Site 2



Third-ranked Site: Springstead

Land Status: Private

Acreage: 626 acres

The relatively level area of the site, available utilities, and access make it one of the more suitable areas for housing development in the Churchrock Chapter. This will depend, however, on the results of tests being conducted on possible uranium contamination of groundwater in the area. The site is located on private land, which is being developed by the Fort Defiance Housing Corporation. They plan to provide affordable housing to Churchrock Chapter members as part of the development.

Site 3: Springstead



Exhibit 36: Springstead Site



Planning policies have been identified to implement the land use plan:

Policy 1: Encourage people to live in the tradition of the beauty way.

Policy 2: Encourage healthy and productive land conditions and promote sustainable farming and grazing in the Chapter.

Policy 3: Preserve and protect the environment in the Chapter.

Policy 4: Preserve existing natural resources and ensure availability for future use.

Policy 5: Preserve and protect historical and cultural features in the Chapter.

Policy 6: Create and promote business and industry in the Chapter.

Policy 7: Provide services to Chapter members including health, safety, educational and recreation services.

Policy 8: Ensure quality, safe housing for both new construction and for housing renovations.

Policy 9: Develop and maintain reliable utilities and roads within the Chapter.

Policy 10: Develop a form of local government that promotes local autonomy.

Policy 11: Seek funding to create a land administration staff.

E.2 Implementation

The following list contains guidelines and information to assist the Churchrock Chapter in the implementation of the Land Use Plan for Housing.

Policy 1. Encourage people to live once more in the tradition of the beauty way.

- a. Respect themselves and others.
- b. Take responsibility as citizens of the Chapter.

Policy 2. Encourage healthy and productive land conditions and promote sustainable farming and grazing in the Chapter.

- a. Ensure land becomes, and remains, healthy and productive.
- b. Limit vehicle use to established roads to reduce erosion.
- c. Seek funding sources for erosion control projects, farm equipment, and irrigation hardware.
- d. Ensure there is adequate land for grazing and agriculture by seeking funds for land acquisition.
- e. Locate additional sources of water for agriculture.
- f. Develop better methods of livestock management with the help of the Land Board, especially in matters of enforcement.

Policy 3. Preserve and protect the environment in the Chapter.

- a. Make Churchrock a healthy, clean place for people to live.
- b. Clean up and reclaim mines and land contaminated by mining activities.
- c. Clean up and restore areas used for sheep-dipping vats.
- d. Organize clean-up days to pick up trash,

- and create an adopt-a-highway litter clean-up program.
- e. Start a house-to-house trash pick-up service.

Policy 4. Preserve existing natural resources and ensure availability for future use.

- a. Mitigate negative impacts of past, current, and future use, and manage resources wisely.
- b. Protect significant natural features from development including the Red Rocks, Churchrock (the rock formation), and the Pyramid.

Policy 5. Preserve and protect historical and cultural features in the Chapter.

- a. Preserve historical places including Kit Carson Cave, Outlaw Trading Post, and various Anasazi ruins.
- b. Encourage continued cultural practices such as song and dance, pow wows, the Intertribal Ceremonial, and the use of the Navajo language.

Policy 6. Create and promote business and industry in the Chapter.

- a. Provide businesses, goods, and services to meet Chapter needs.
- b. Create jobs in the Chapter.
- c. Develop cooperative business associations between Churchrock community members and with others beyond the Chapter.
- d. Develop tourism sites and services.

Policy 7. Provide services to Chapter members including health, safety, educational and recreation services.

- a. Promote educational opportunities for people of all ages.
- b. Improve health care services and facilities.
- c. Provide adequate police and fire protection including residential fire protection.
- d. Involve community members in neighborhood watches and awareness.
- e. Provide facilities that improve the quality of life, including a recreation center/ community gymnasium and a senior day care center.

Policy 8. Ensure quality, safe housing for both new construction and for housing renovations.

- a. Disperse housing sites to ensure a better quality of life, working to promote construction of smaller clustered subdivisions.
- b. Work with NHA, BIA, IHS and other housing providers to secure sources of funding for new housing and renovations.

Policy 9. Develop and maintain reliable utilities and roads within the Chapter.

- a. Extend basic utilities of water, sewer, gas, power, and telephone to the entire community.
- b. Use alternative sources of energy including solar, wind, and sustainable wood cutting.
- c. Where feasible, use constructed wetlands instead of sewer lagoons.
- e. Widen the frontage road (old Route 66) through the Chapter.
- f. Build a freeway interchange within the Chapter.

Policy 10. Develop a form of government that promotes local authority.

- a. Institute a township or municipal style of government.
- b. Elect local government officials to represent geographic areas, such as districts.

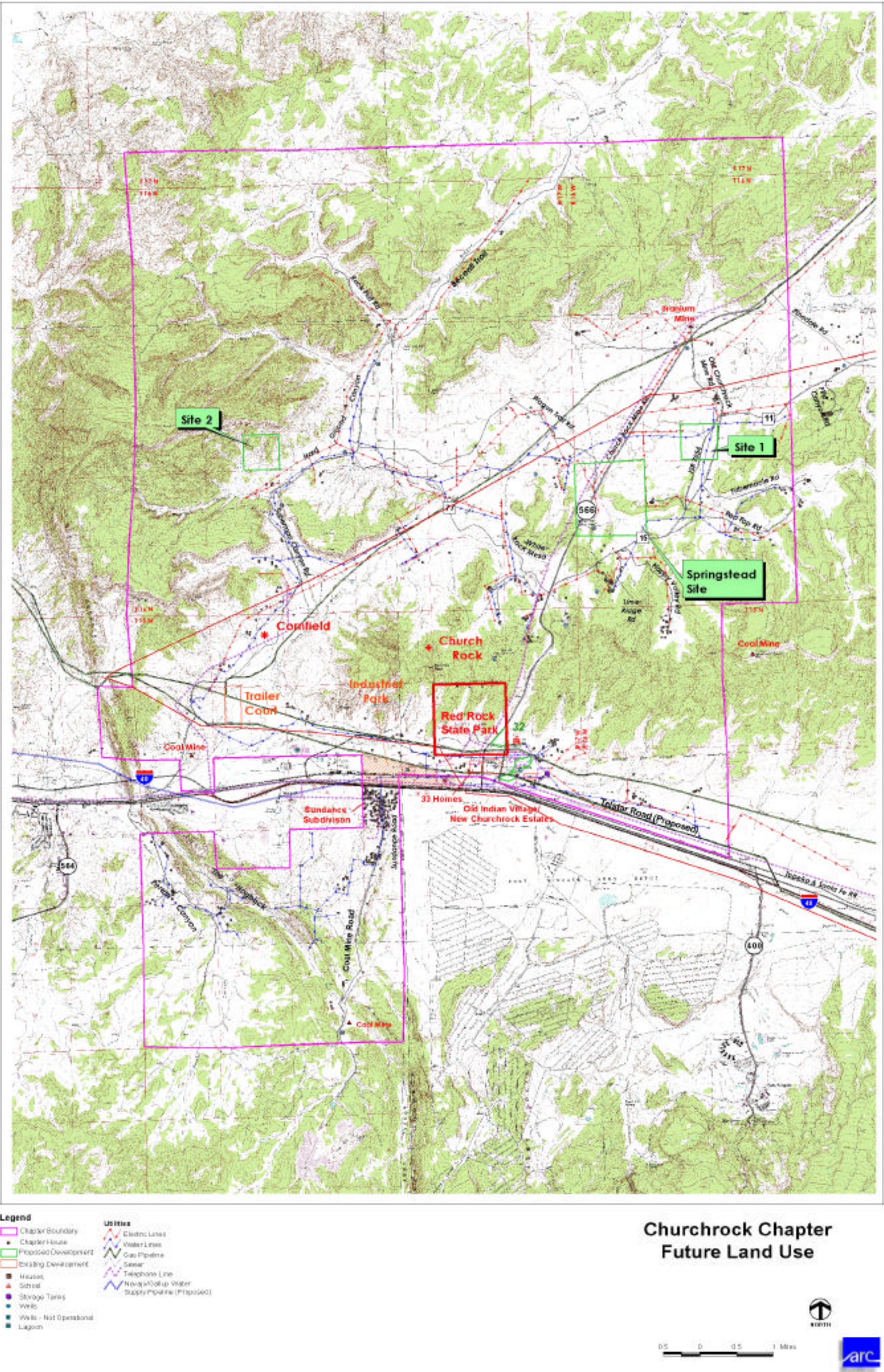
Policy 11. Seek funding to create a land administration staff that will:

- a. Seek grants and funds for government operations and capital projects.
- b. Implement the land use plan.
- c. Provide legal expertise on land issues.

E.3 Future Land Use Map

The map on the following page summarizes all land use recommendations for the Churchrock Chapter. A large-sized version of this map is located in the inner pocket of the back cover.

Exhibit 37: Future Land Use



F. Appendices

Planning Definitions

Average Daily Traffic: a measure of the average number of vehicles that pass through a location along a road in a day.

Candidate Species: a species being considered for listing as threatened or endangered.

Clustered Housing: housing developed in subdivisions or in a close-together pattern.

CLUP Committee: Comprehensive Land Use Planning Committee - committee designated under the LGA to oversee the development of a land use plan.

Community Facilities: schools, preschools, clinics, chapter houses, police/fire stations, recreation and senior centers, etc.

Development Plan: a site plan showing how the land will be developed: location of structures, parking, access, signs, utility connections, drainage, etc.

Economic Development: training programs, taxes or other incentives designed to retain existing businesses as well as create and/or attract new businesses.

Endangered Species: a species that is in danger of extinction throughout all or a significant portion of its range.

Extirpated Species: a species that has been eliminated from its range, usually in a specific geographic area.

Infrastructure: utilities (water, sewer, gas, electric, telephone, solid waste facilities), and roads.

Land Status: type of land ownership as identified below:

Allotment - Land in legal title of the U.S. held in trust for an individual Indian. The BIA has power over this land and the Tribe has no consent privilege. The land can be leased to non-Indians or sold to a tribe with the consent of an individual.

State Land - Lands in legal title of the State of New Mexico.

U.S. Purchase Lands - Lands purchased from 1915 to 1933 using tribal and government funds. Total purchase in New Mexico is 188,342 acres. These lands are held in trust by the Navajo tribe.

Public Domain - Lands owned by U.S. and administered by the BLM.

2198 Land - BLM land slated to be exchanged with individuals to consolidate Tribal lands.

Administrative Reserve - Lands specifically set aside by executive order or statute to be used as administrative sites for agency or school purposes. Lands in legal title of the U.S. conveyed into trust status. These lands are specifically set aside for administrative uses.

Private Land - Lands with legal title owned by a person or legal entity. These lands belong to individuals or legal entities and are taxable. The owner, who can be Indian, has power over the land.

Land Use Plan: a document identifying existing and future land use. It serves as a guide for the orderly development of a community. It generally contains information about current conditions and needs as well as goals, priorities, and vision for the future. Additionally, it identifies recommendations for implementing the plan. A land use plan is only one component of a **Comprehensive Plan** which may also include components on open space, community facilities, transportation, economic development, etc.

LGA: Navajo Nation Local Governance Act of 1998. Law passed by Navajo Nation that grants local authority over local issues related to:

- Economic development
- Taxation and Revenue Generation
- Bonds
- Infrastructure Development

- Land Use Planning/Zoning/Ordinances
- Federal, State and Tribal Contracts
- Public Safety/ Recreation

The LGA has two requirements:

- The adoption of the Five Management System - accounting, personnel, property, procurement, and record keeping policies and procedures.
- If a chapter wants to “administer land,” it must develop and adopt a comprehensive, community-based land use plan.

NAHASDA: Native American Housing Assistance and Self Determination Act of 1996

NAHASDA reorganized the system of federal housing assistance to Native Americans by:

- Eliminating several separate programs and replacing them with a single program
- Recognizing the right of Indian self-determination and tribal self-governance
- NAHASDA provides for tribal governing bodies to name a tribally designated housing entity (TDHE) to prepare an Indian Housing Plan (IHP)

Participation Process: process adopted by the CLUP committee to ensure community participation and education during the preparation of the land use plan.

Performance-Based Zoning: developments are evaluated on a case-by-case basis to ensure that all of the potential impacts are addressed before approval. The land use plan serves as a guide to which uses are appropriate.

Planning Process: steps involved in preparing a land use plan.

Community Assessment - assess community needs for housing, economic development and community facilities.

Infrastructure Analysis - compile data on transportation and utilities needed for development to occur.

Suitability Analysis - examine the natural and cultural resources and environmental constraints to development.

Scattered Housing: housing developed in a spread-apart pattern.

Service Area: the planning area of a chapter encompassing all lands within it. Chapter members may live outside of this area and still be eligible for chapter programs.

Threatened Species: a species that is likely to become endangered in the foreseeable future.

Traditional Zoning: automatically permits and excludes certain types of uses and developments, without regard to how impacts are addressed. A proposed use not listed as permitted requires that the land be 'rezoned.'

Withdrawn Land: sites for which all clearances and approvals have been given.

Acronyms and Abbreviations

ADT – Average Daily Traffic
AHP – Affordable Housing Program
BIA – Bureau of Indian Affairs
BIDF – Business and Industrial Development Fund
BLM – Bureau of Land Management
CHR – Community Health Representative
CIP – Capital Improvement Program
CLUPC - Community Land Use Planning Committee
CR – County Route
CDBG – Community Development Block Grant
EPA – U.S. or Navajo Environmental Protection Agency
EPA – Eagle Protection Act
ESA – Endangered Species Act
FNLB – Federal Home Loan Bank
GED – General Education Degree
HIP – Housing Improvement Program
HUD – U.S. Department of Housing and Urban Development
I.H.S. – Indian Health Service
IHP – Indian Housing Plan
ISR – Indian Service Route
JMEC – Jemez Mountain Electric Cooperative
LGA – Local Governance Act
LIHTC – Low Income Housing Tax Credit
MELP – Micro Enterprise Lending Program
MBTA – Migratory Bird Treaty Act
NAHASDA – Native American Housing and Self Determination Act
NCC – Navajo Communications Company
NDOT – Navajo Department of Transportation
NEPA – National Environmental Protection Act
NESL – Navajo Endangered Species List
NHA – Navajo Housing Authority
NHS – Navajo Housing Services
NRCS – Natural Resource Conservation Service
NSR – Navajo Service Route
NTUA – Navajo Tribal Utility Authority
OEDP – Overall Economic Development Program
OEH – Office of Environmental Health
ONAP – Office of Native American Programs
RBDO – Regional Business Development Office
SBA – Small Business Administration
TDHE – Tribal Designated Housing Entity
USDA – US Department of Agriculture