

**LEGISLATIVE SUMMARY SHEET**

Tracking No. 0025-20

**DATE:** January 30, 2020

**TITLE OF RESOLUTION:** PROPOSED STANDING COMMITTEE RESOLUTION, AN ACTION RELATING TO RESOURCES AND DEVELOPMENT COMMITTEE, CERTIFYING KIN DAH LICHII' CHAPTER GOVERNANCE COMMUNITY-BASED LAND USE PLAN WHICH HAS REEVALUATED AND READJUSTED KIN DAH LICHII' CHAPTER'S PREVIOUS COMMUNITY-BASED LAND USE PLAN

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

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

5-DAY BILL HOLD PERIOD: High  
Website Posting Time/Date: 5:35pm 01/31/20  
Posting End Date: 02-05-20  
Eligible for Action: 02-06-20

PROPOSED STANDING COMMITTEE RESOLUTION  
24<sup>th</sup> NAVAJO NATION COUNCIL—Second Year, 2020

INTRODUCED BY

Vincent James M. D. D.  
Primary Sponsor

TRACKING NO. 0025-20

AN ACTION

RELATING TO RESOURCES AND DEVELOPMENT COMMITTEE, CERTIFYING  
KIN DAH LICHII' CHAPTER GOVERNANCE COMMUNITY-BASED LAND USE  
PLAN WHICH HAS REEVALUATED AND READJUSTED KIN DAH LICHII'  
CHAPTER'S PREVIOUS COMMUNITY-BASED LAND USE PLAN

BE IT ENACTED:

**SECTION 1. AUTHORITY**

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

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

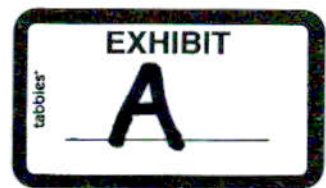
## 17 18 **SECTION 2. FINDINGS**

- 19 A. Pursuant to Kin Dah Lichii’ Chapter Resolution KDLC 11-076-2019, attached as  
20 **Exhibit A**, the Kin Dah Lichii’ Chapter approved the Community-Based Land  
21 Use Plan which is attached as **Exhibit B**.

## 22 23 **SECTION 3. Certification of Kin Dah Lichii’ Chapter Reevaluated and** 24 **Readjusted Community-Based Land Use Plan**

- 25 A. The Resources and Development Committee of the Navajo Nation Council hereby  
26 certifies the reevaluated and readjusted Kin Dah Lichii’ Chapter Community-  
27 Based Land Use Plan, attached hereto as **Exhibit B**.
- 28 B. Certification of this Community-Based Land Use Plan shall not delineate adjacent  
29 chapter boundaries. Any chapter disputes rest solely with the Courts of the  
30 Navajo Nation.





## KIN DAH LICHII' CHAPTER

Larry Curtis  
PRESIDENT

Brunella Yazzie  
VICE PRESIDENT

Mike Tsosie  
SECRETARY/TREASURER

Kerrie Begaye  
CHAPTER MANAGER



Vince James  
COUNCIL DELEGATE

Theresa Watchman  
ADMINISTRATIVE ASSISTANT

Terry Kelewood  
GRAZING OFFICIAL

Minifred Lilly  
OFFICE ASSISTANT

KDLC 11-076-2019

### RESOLUTION OF THE KINDAHLICHII CHAPTER

#### Approving and Adopting the Revised/Updated Kindahlichii Community Land Use Plan.

#### WHEREAS:

1. Kindahlichii Chapter is government certified pursuant to 26 N.N.C., Section 102(B) which permits the Kindahlichii Chapter to exercise local governance authorities contained within 26 N.N.C., Section 103; and
2. The Kindahlichii Chapter pursuant to 26 N.N.C., Section 1 (B) is vested with the authority to review all matters affecting the community and to make appropriate decisions when necessary and make recommendation to the Navajo Nation and other local agencies for appropriate actions; and
3. The Land Use Plan for the Kindahlichii Chapter was reviewed and recommendations were made for language to be deleted or to be added at the first public hearing in August 2019; and
4. A sixty-day period was scheduled for additional public comment or input in the Land Use Plan. The second public hearing was scheduled and held October 25, 2019; and
5. The final review of the Land Use Plan was done Tuesday, November 5, 2019; and
6. The Kindahlichii Land Use Plan, after community approval, will be forwarded to the Navajo Nation Department of Justice for review of the manual, language and compliance with Navajo Nation laws and regulations
7. The name of Kindahlichii Chapter was changed since the first Land Use Plan manual and changes were made throughout the manual from the Chapter's former name "Kinlichee."



NOW THEREFORE BE IT RESOLVED THAT:

The Kindahlichii Chapter hereby approves and adopts its revised Kindahlichii Community Land Use Plan to be used in developing future request for funding proposals and projects development.

CERTIFICATION:

We hereby certify the foregoing resolution was duly considered by the Kindahlichii Chapter at a duly called meeting at which a quorum was present and that same was approved by a vote of 32 in favor, -0- opposed, and 1 abstained on this 17th day of November 2019.


MOTION: Harrison Williams

SECOND: Jimmie Wilson

  
\_\_\_\_\_  
Larry Curtis, President

  
\_\_\_\_\_  
Brunella Yazzie, Vice-President

  
\_\_\_\_\_  
Mike Tsosie, Secretary/Treasurer

  
\_\_\_\_\_  
Terry Kelewood, Grazing Official

**Mr. Larry Curtis**  
PRESIDENT

**Mrs. Burnella Yazzie**  
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**Mr. Mike Tsosie**  
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**Ms. Kerrie Begaye**  
CHAPTER MANAGER

**Mrs. Theresa Watchman**  
Administrative Assistant

## CLUPC (KCDRC) Membership

Terry Kelewood, Chair

Gilbert Belini, Vice Chair

Lavina Curley, Secretary

Jimmie Wilson, Member

Harrison Williams, Member

# Land Use Plan for ~~Kinlichee~~ Kin Dah Lichii Chapter

Revised  
August 2019





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# Introduction

## 1.0 Purpose of Chapter Planning Initiative

The purpose of the Land Use Plan for ~~Housing~~ future community development is to provide a guide for future ~~Navajo Housing Authority, (NHA), scattered housing, and commercial development, adequate improvements on chapter facilities, premises, including parking lot, veterans building, thoroughfare, addressing roads, open spaces to be retained in their natural state for recreation purposes, and livestock grazing in the Kin Dah Lichii Chapter community.~~ This document will provide long-range guidance to the 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 a careful assessment of the housing, community ~~needs~~ development and facility need of the chapters, an assessment of infrastructure needs and capabilities and the suitability of the sites for development. It is intended to function as a working resource for the chapter's land use planning committee in their efforts to plan effectively and appropriately for the future. While future development of ~~housing projects~~ 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 ~~Kinliehee~~ Kin Dah Lichii Chapter Land Use Plan for ~~Housing~~ is driven by the 1996 NAHASDA legislation, which has provided the funding for this plan for housing, and 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 the land.

## 2.0 Local Governance Act

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. 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 preservation of Navajo heritage and culture
- ensuring government accountability
- creating an atmosphere of experimentation and learning, and
- developing experienced, professional administrators. 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 personnel, property, procurement, accounting and record keeping.

Chapters must also develop and adopt a comprehensive, community-based land use plan, which grants local chapters the authority 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, areas to be used for residential, commercial, industrial and public purposes". While the main intention of this plan 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 chapter in the development of the comprehensive land use plan.



### 3.0 NAHASDA

The Native American Housing Assistance and Self-Determination Act of 1996 (NAHASDA) has provided the funding for this planning effort. NAHASDA provided \$86 million to the Navajo Nation for the first year and \$88 million in the second year for the purpose of planning for and constructing housing. Three additional years of funding are anticipated. In total, \$1.2 million has been set aside for 30 chapters plans in subsequent years.

NAHASDA reorganized the system of federal housing assistance for Native Americans. It replaced several assistances for Native Americans. It replaced several housing assistances programs with one block grant programs that recognizes the right of Indian self-determination and tribal self-governance. The guided principles of NAHASDA states that public housing programs modeled for urban American should not be forced on Native American, 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.

### 4.0 Chapter Planning Process

There are three (3) phases involved in this chapter planning process, all culminating in a final Chapter Land Use Plan (Exhibit 1)

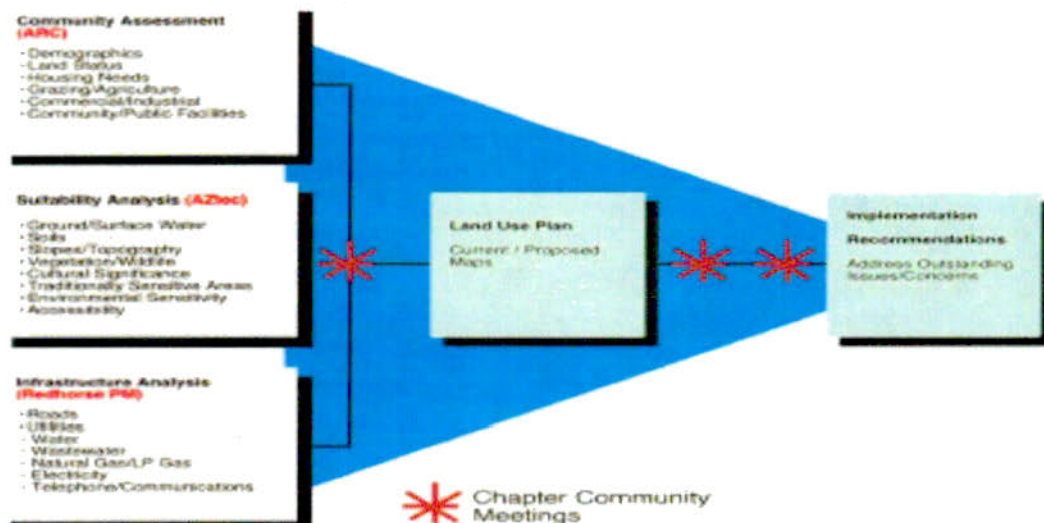
The first phase involves a community assessment. The community assessment assesses individual chapter community needs such as housing, economic development and community facilities.

The second phase includes an infrastructure analysis. The infrastructure analysis considers transportation and utilities needed for development to occur.

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.

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

#### Typical Planning Process for Individual Chapters



The community assessment section addresses the following topics:

- Chapter background, including history and planning issues and goals
- Socio-economic trends
- Housing needs
- Land status
- Grazing uses
- Commercial/Industrial Uses
- Community facilities

## 1.0 Chapter background

### 1.1 History

The ~~Kinlichee~~ **Kin Dah Lichii Chapter** house is located about two miles off of Arizona State Route 264 on the north side. However, the remainder of the chapter area is remote and isolated.

The terrain of the chapter area slopes to the west, rolling off the Defiance Plateau. The area is densely wooded with pinon, juniper and ponderosa in the higher parts of the plateau. The undercover is mainly sagebrush.

The Navajo name is derived from a historic Anasazi ruin; the ruin is protected by the Navajo Tribal Park system.

The first ~~Kinlichee~~ **Kin Dah Lichii Chapter** House was located about ¼ mile north of the current chapter house, by the ~~Kinlichee~~ **Kin Dah Lichii** Wash, which is termed in Navajo, Be Hi Lini', or, the gathering place. The structure was made of sandstone and was about 30 feet by 30 feet, the foundation of which still stands. There were other buildings which served as the school building (classrooms) and dormitory.

Old Kinlichee School





The old [Kinlichee Kin Dah Lichii](#) BIA school and dormitory was built in the early 1930s and still stands. It had 80 students. Later, in the 1960s, a dormitory, cafeteria, and additional classrooms were added. During the first years of the school, Mrs. Hudgenson was the principal, Ms. Katherine Luepp, the teacher, and Richard Shirley, recently returning from the armed forces, was the bus driver. Charles Peshlakai was the maintenance person, shoveling coal and firewood into the furnace to keep the building warm for the students. Mr. Frank David traveled into the community recruiting students for the school. He also worked for the Police Department, riding around on horseback, taking community members to court in Fort Defiance for their hearings. Usually, these members did not have transportation, so they had to ride one horse sitting in back of Mr. Peshlakai to and from Fort Defiance.

The new [Kinlichee Kin Dah Lichii Olta](#) community school opened in 1998 as a K-6<sup>th</sup> BIA school and has since converted to a grant/charter K-8<sup>th</sup>.

As described in the Notah Dineh Trading Company website, trading posts began appearing:

...in the 1860's when mobility was limited to horse and wagon. Trading posts were supplied with items the Navajo could not produce for themselves like coffee, flour, tools, hardware, etc. Until the end of World War II, government licensed traders brought the outside world to the Navajo.

The traders and trading posts also served as the source for the outside work to buy the items the Navajo produced such as jewelry, wool, and the finest "woven textiles" for which they became famous. By 1900, through encouragement and higher prices paid for quality weavings, the traders and weavers worked together developing certain design characteristics in certain regions of the reservation.

By the 1920's, numerous styles of rugs had developed such as Two Grey Hills (New Mexico), Ganado, Teec Nos Pos, and Chinle (Arizona) to name a few. They were named for the trading post in the area where they were developed.

Some of the community leaders have been:

- Kee McCabe, President
- Paul Curley, President
- John Abe, President
- Burnell Hubbard, Secretary/Treasurer
- June Curley, Secretary/Treasurer
- John Billy, President
- Scott Preston, Navajo Nation Tribal Vice President
- Hosteen Blacksheep, President
- Samuel Billison, ~~former and current~~ Council Delegate and President
- Lawrence Yazzie, Secretary/Treasurer
- Desales Ashley, Secretary/Treasurer
- Jimmie Tsosie, Secretary/Treasurer
- Wilbur Nez, Secretary/Treasurer
- Ambrose McCabe, Vice-President
- Nelson McCabe, Council Delegate, President
- Benjamin Curtis, President, Council Delegate, Vice-President
- Benjamin Curley, Council Delegate, [Chapter](#) President
- Guy Morgan, Council Delegate
- Brunella Begay/[Yazzie, Vice-President-Secretary/Treasurer](#)
- Johnny Curtis, Vice-President, Planning Board member



- Willie Wilson, Grazing Member
- David McCabe, Grazing Member
- Austin Albert, Grazing Member, President
- Frank David, Grazing Member
- Jonas Hubbard, Jr., Vice-President
- Jim James, President
- Helen Martinez, Vice-President
- Mike Tsosie, Secretary/Treasurer
- Bertha Wilson, Secretary/Treasurer & Grazing Member
- Libby Valteau, Vice President
- Roger Shirley, President
- Edward David, Vice President/Grazing Member
- Alfred David, Grazing Member
- Larry L. Curtis, President
- Terry Kelewood, Grazing Member
- Alfreda Lee, Secretary/Treasurer
- Christine Wallace, President
- Alton J. Shepherd, Council Delegate
- Vince James, Council Delegate

Cross Canyon Trading Post



Before the Navajo Nation implemented the current election process, the community people elected their leaders based on the livelihood of the individual.

During the time the current chapter house was being built in 1960, some of the construction workers were: Johnny Curtis, Sr., Navy James, Billie James, Clarence James, Henry James, Clyde Claw Tah Baha Nez with Desales Ashley as the timekeeper and Descheenie Nez as the chief of construction supervisor.

## 1.2 Community Issues

As part of the Chapter's visioning process, questionnaires, discussions with ~~CLUP~~ K.C.D.R.C committee members and responses at community meetings, were used to identify the following issues:

- need for housing renovations
- need for additional housing for residents and teachers
- need for local businesses and more jobs
- unpaved school bus routes
- need youth and senior programs and facilities
- ~~removal of old gas storage tanks~~
- infrastructure: water, power, telecommunications, etc.
- livestock overgrazing
- stray dogs
- conflicts over religious beliefs

- resistance to change and acceptance of new ideas
- need for leaders to be involved and give back to their community
- land disputes:
  - chapter boundaries
  - conflicts with grazing
  - Illegal dumping
  - Wood hauling
  - Pinon harvesting
  - Feral horses
  - Lack of zoning and ordinances
  - Eminent domain

### 1.3 Chapter Planning Goals

#### 1. Promote job opportunities for community members and revenue sources for the chapter.

- Develop basic commercial services:
  - laundromat
  - bank
  - discount store, grocery store
  - beauty parlor
  - movie theater
- Develop tourist services:
  - casino
  - recreation at lakes and canyons
  - motel
  - museum
  - gift shop
  - Anasazi ruins

#### 2. Provide additional community facilities for ~~youth~~ senior citizens

- Senior center meal site
- Congregate housing
- Skill site/nursing home
- Day care

#### 3. Provide additional community/facilities for youth

- Group home for youth
- Day care center
- Recreation center
- Rodeo ground
- Summer youth camp
- Recreational areas: basketball, baseball, soccer, skateboarding, bike trails
- Playground as part of the NHA subdivision



4. **Provide educational facilities and opportunities within the community**
  - Head Start
  - special education center/home
  - new grade 7-8 classroom facility
  - new dormitory
  - develop a history project to involve the Veterans, elders, and other leaders in the community
  - involve the seniors and young people in storytelling during the winter and summer
  - teach younger generation weaving and other traditional crafts
5. **Ensure the health and safety of all community members by developing necessary community facilities**
  - Police/fire station
  - Clinic
6. **Provide safe and adequate housing for all community residents**
  - Develop more standardized housing
  - Housing renovation projects
  - Mobile home park
  - Scattered, ~~elustered~~, subdivision type housing development
  - Housing for teachers
7. **Provide for customary land use in the chapter area including, farming and grazing**
  - Vet clinic
  - Develop irrigation facilities to expand agriculture
  - Market wool products
8. **Provide other community uses in the chapter**
  - Traditional game room (card, storytelling in the winter and summer, stick game, etc.)
  - Small peacemaking court
9. **Expand the community cemetery**
10. **Provide all-weather roads to serve the community school and housing area**
  - Navajo Division of Transportation (NDOT) has plans to pave N203 and N9252
  - The chapter would like the road to the cemetery paved
  - NDOT will be replacing 3 bridges over the Kin Dah Lichii wash N39 scheduled FY'00
  - NDOT will be replacing Lone Tule Wash Bridge N641
  - ADOT is proposing to widen AZ 264 to 4 lane from Burnside Junction to Kin Dah Lichii and from St. Michaels to the Summit are.
11. **Transit and airport modes should also be considered in long-range plans.**
  - NDOT has scheduled closing the existing airport and construction of a new airport located in Kin Dah Lichii or Ganado

- NDOT will be adding several bus routes originating in Window Rock with stops in Kin Dah Lichii:
  - Route 1 to Chambers
  - Route 6 to Chinle
  - Route 7 to Holbrook
  - Route 8 to Flagstaff

## 12. Provide water, power, and telephone to scattered housing area

- IHS-OEH is planning new water line projects in the chapter
  - Cross Canyon area southwest/southeast
  - Kin Dah Lichii northeast
  - Woodsprings area
  - ~~Cool~~ **Cool** Fields area
  - Black Soil area
  - Fluted Rock
  - Summit area
  - ~~Toh' lie tsoi'i~~ **Toh' li tsoi'** area
  - ~~Tse'akai'i~~ **Tséya Kinsikaad** area

## 2.0 Community Socio-economic Trends

### 2.1 Population Trends

Population trends are used to determine housing and community facility needs over the next 10-20 years (Exhibit 2). Population trends are as follows:

- Approximately 98.8% of residents are Navajo or Native American; and the remainder ~~predominately~~ white (1990 U.S. Census)
- Kin Dah Lichii Chapter has increased in population from 1,305 in 1990 to 1,489 in 1998. ARC estimates a population of 2,085 based on housing count. Apache County had a population in 1990 of 61,591 persons and has a current (1998) estimated population of 66,205.
- Population projections indicate Kin Dah Lichii Chapter will grow to 1,519 in 2000 and 2,000 in 2020. Apache County is projected to grow to 67,925 in 2000 and 76,645 in 2010

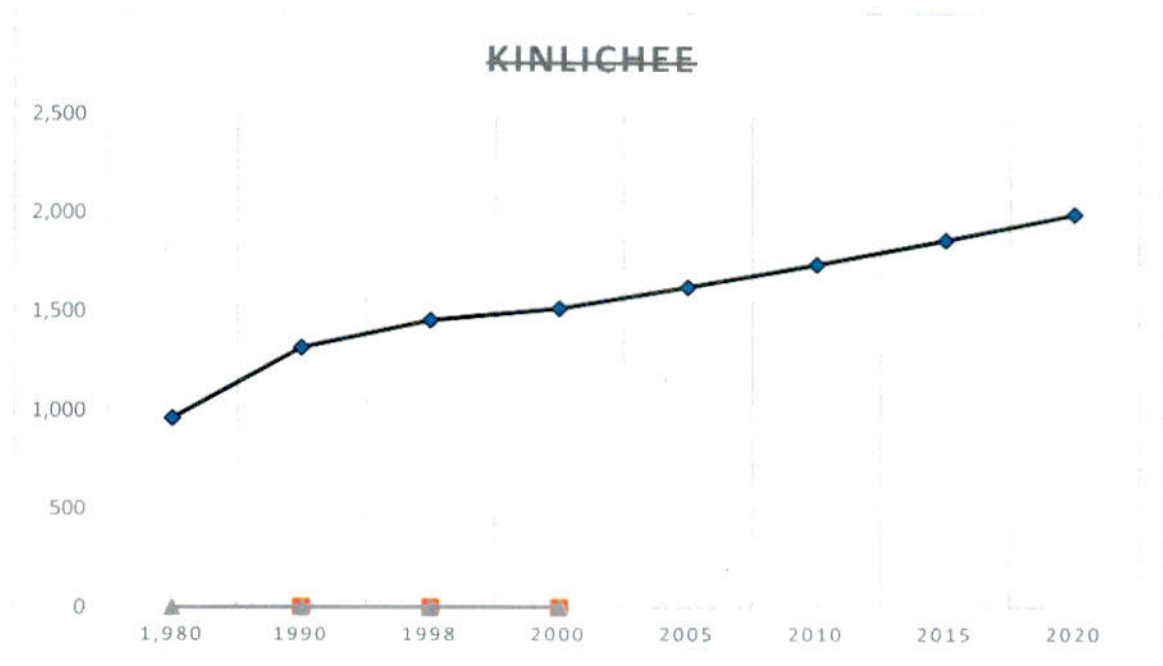
### 2.2 Demographic Characteristics

Age characteristics of Kin Dah Lichii Chapter as reported in the 1990 U.S. Census are as follows (Exhibit 3):

- 11% of the population are under age 5
- 28% are aged 5-17
- 32% are aged 18-39
- 19% are aged 40-64
- 10% are aged 65 and over
- In comparison for Arizona:
  - 26.7% of the population are under age 18

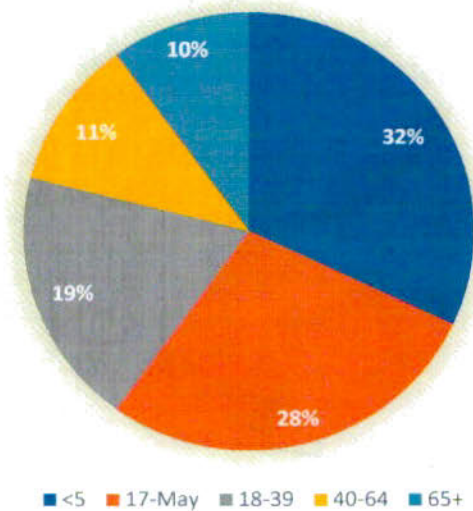
- 60.3% of the population are aged 18-64
- 13% of the population are aged 65 and over
- Over 200 Veterans reside in the area

*Exhibit 2: Population Trends*





### Kinlichee Age Distribution, 1990



### 2.3 Employment and Income

Most residents work in Ganado and Window Rock. Most of the employment is in the government, trade and service sectors for Apache County (Exhibit 4). As described in Chapter Images, the major Kin Dah Lichii area employers are:

-	Kin Dah Lichii Otlá	39
-	Navajo Nation	10
-	Farms	<u>12</u>
-	Total	61

The two major Ganado area employers are Ganado Unified School District with 350 employees and Sage Memorial Hospital providing 236 jobs.

Other economic trends include the following:

- The unemployment rate in 1997 for Ft. Defiance Agency was 37% and 45.8% for the Navajo Nation. In 1988, the Apache County unemployment rate was 16.0% and 4.1% for Arizona (Navajo Nation Economic Development Department 1997).

#### Exhibit 4: Economic Sectors

Apache County Employment by Sector	
Agriculture	-
Mining	-
Construction	500
Manufacturing	300
Transportation, Communication, Utilities	500
Wholesale & Retail Trade	2,050
Finance, Insurance and Real Estate	725
Services	2,975
Government	11,425
	18,525
(Source: 1998 AZ Dept of Commerce)	

- More than 50 percent of the Navajo families on the reservation live below the federal poverty levels, compared with less than 13 percent of the general U.S. population (Navajo Nation Economic Development Department, 1997)
- Tradition and financial constraints keep most Navajo families living in the traditional style of extended family and livestock raising for subsistence income (Navajo Nation Transportation Plan, 1998)
- Only 49% of reservation income is derived from wages and salaries. Another 42% is derived from social security, retirement benefits, welfare and general assistance. The remainder is self-employment, interest/dividends and other (Navajo Nation Transportation Plan, 1998)
- In 1990, the median family income was only \$11,885 while the U.S. median family income was more than \$30,000. Per capita income for the Navajo Nation in 1990 was \$5,600 and \$10,420 for Apache County and for the State of Arizona was approximately \$22,000. (Navajo Nation Economic Development Department, 1997)

#### **2.4 Leakage**

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

#### **2.5 Education Levels**

For the Navajo Nation 43.5% have a high school diploma and 5.5% have graduated from college. For Apache County, 54.7% of the population are high school graduates and 8.5% have college degrees.

### **3.0 Housing Needs**

Existing and proposed housing needs are described in this section and are listed in Exhibit 8 and shown in Exhibits 9 and 10. Existing and proposed housing sites are also shown in the enclosed large-scale map in the pocket of this report folder.

### **3.1 Existing housing**

The 1990 U.S. Census reported 502 total housing units in Kin Dah Lichii Chapter in 1990. Of these, 65% were occupied. The other units were seasonal units, vacant due to family members living closer to employment, or uninhabitable. Forty percent of vacant units are seasonal. Of the total occupied, 86.2% of units are owned and 13.8% rented. Of the total units, 78.9% were single family, 2.4% multi-family, and 8.0% mobile homes.

#### **NHA Housing**



A 1997 estimate by Navajo Nation Community Development Department lists 359 occupied housing units in the chapter. Of the total, 48 units were constructed by Navajo Housing Authority (29 public rental units), 21 as BIA school quarters, and other units were built by NHS. A 2000 consultant estimated finds approximately 515 occupied houses in the chapter.

### **3.2 Housing needs**

Many homes lack indoor plumbing. More than 50 percent of Navajo homes lack complete kitchens and more than 40 percent of Navajo households rely solely on water hauling to meet daily water needs (Navajo-Gallup Water supply project, 2000). A recent feasibility study of Kin



Dah Lichii Chapter performed by the IHS Office of Environmental Health found 161 housing units without plumbing and 265 units needing bathroom additions.

A waiting list prepared by the chapter indicates the following need:

-	new low income	26
-	new disabled	16
-	replace	<u>2</u>
	Total new	44
-	renovate	8
-	renovate senior	12

### 3.3 Proposed Housing

Based on existing and projected housing needs, 58 new housing units should be constructed by 2010. Ten rental units are currently funded (however, the chapter would like to build only homeowner units) and 10 owner scattered site are planned in FY 2002.

The chapter has identified several housing sites. Extend the NHA housing area to the west. Ten acres have been withdrawn (on a 15-acre tract) in order to build 10 new mutual help units. ~~Other proposed clustered housing site identified include:~~

- Woodsprings/Nazlini turn-off
- North of tribal park
- Southwest of Cross Canyon
- Summit

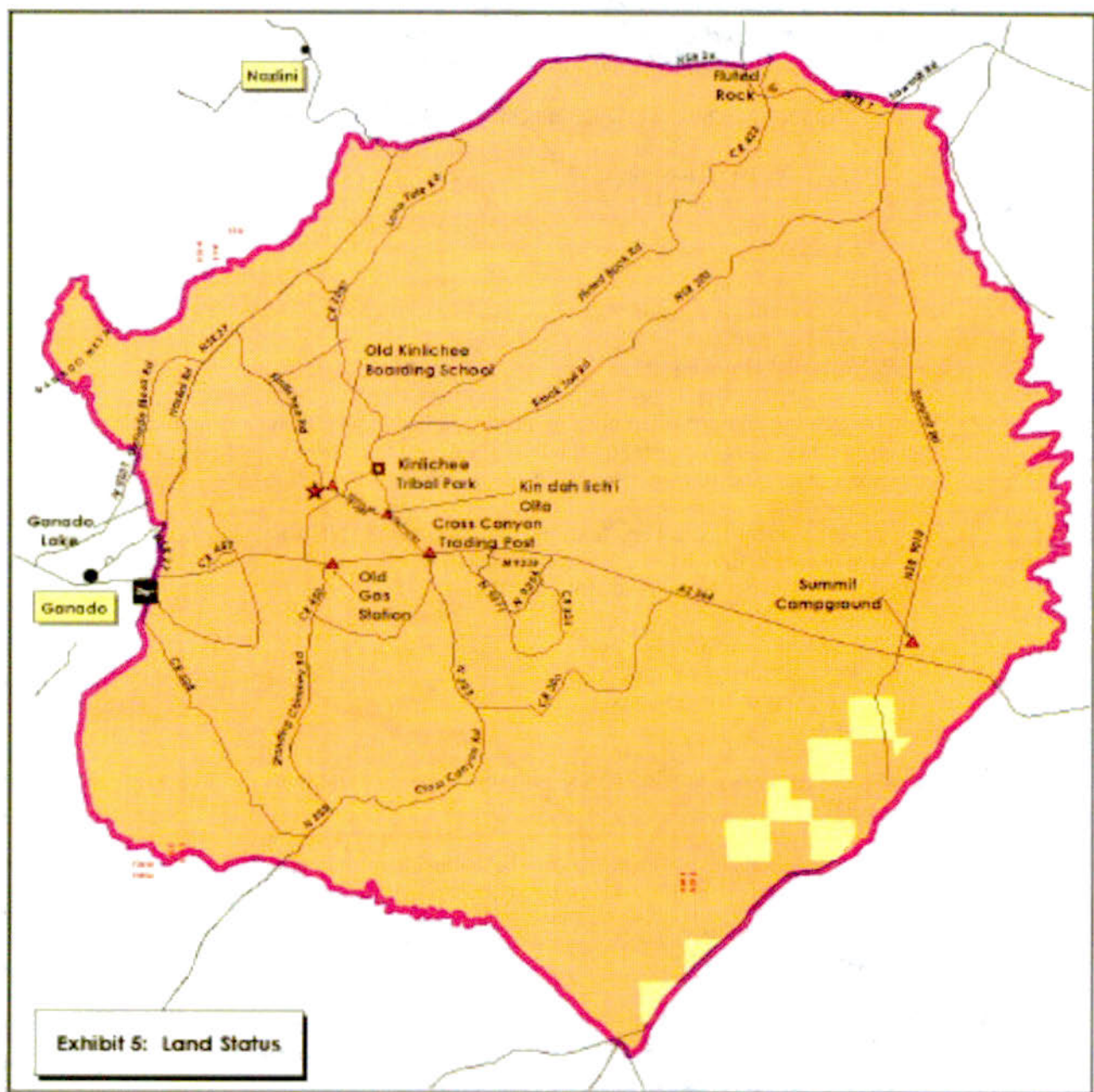
The chapter has requested \$300,000 to build 68-bathroom additions to serve 118 houses (1999 CIP request).

A 20-acre site has also been identified on the southside of the community school to develop 40 teacher housing units (Exhibit 7 – additional school tract)

## 4.0 Land Status

As shown in Exhibit 5, the total chapter boundary acreage is 250,000 acres. Over 90% is trust land. In addition, land status is broken out as follows:

- Allotted – 3,686 acres
- Navajo Forest – 140,200 acres
- Navajo Tribal Park – 672 acres



Chapter Boundary

Chapter House

#### Land Status

Indian Allotment  
Navajo Indian Reservation

**Kinlichee**



1 0 1 2 Miles

Archaeological Research Center/Navajo Nation/Navajo Nation  
April 2001



The chapter is abundant in natural resources:

- sand/gravel pits
- sandstone/flagstone
- timber and firewood
- hardwoods, including oaks, used for carving and ceremonial purposes
- herbal gathering site, including cedar and juniper
- pinons
- natural streams and springs

## 5.0 Grazing and Agriculture

### Existing

Most all of the land in the chapter is used for grazing except at the chapter house. NHA housing area, BIA housing area, and the school. Estimates are that 190 grazing permittee families exist in the chapter. Livestock grazing follows the seasons by moving sheep from winter camps to summer camps and back.

Grazing activity has been declining on the reservation during the past 25 years (Exhibit 6). IN 1993, the number of livestock had declined by a third from its level in 1975.

It is estimated that there are approximately 310 farm fields in the chapter.

### Proposed

A number of actions have been identified to improve farming and grazing activities in the chapter as follows:

- Develop farming areas along the Kin Dah Lichii wash
- Reduce overgrazing of lands
- Identify funds to repair and maintain fences

### Exhibit 6: Livestock Grazing

Navajo Livestock Numbers: 1942 – 1993  
Sheep/Goats, Cattle and Horses  
(in '000 Heads)

	1942	1947	1952	1957	1960	1966	1970	1975	1988	1993			
Horses	27	27	27	24	21	22	22	29	12	103			
Cattle	8	8	9	15	16	30	34	48	42	47			
Sheep/Goats	414	274	262	347	390	503	482	510	197	136			
TOTAL	449	309	298	386	427	555	538	587	251	286			

(Source: Dr. Lyle G. McNeal, Director, Navajo Sheep Project, Utah State University, Logan Utah.)

- Work with the USDA Natural Resource Conservation Service
- Form a Farming Committee
- Review the changes under the new Uniform Grazing Act
- Construct dams and irrigation facilities
- Market wool products



## 6.0 Commercial and Industrial Development

### 6.1 Existing

Former trading posts at Cross Canyon and Woodsprings historically were the commercial centers for the community. None exist currently.

### 6.2 Proposed

Proposed business locations ~~include:~~ requires infrastructure: National Electric Code/NTUA Specifications, water line, and sewer line

- Near the Arizona 264 and NN39 intersection
  - NE corner site has been identified for a ~~feed store/Veterinarian clinic~~ Flea Market
  - ~~Southwest side has been identified for retail stores~~
- Cross Canyon Trading Post – A gas/convenience store and feed store is proposed for this site
- Woodsprings Trading Post – A gas/convenience store is proposed for this site
  - Summit Area (as log buildings)
  - Motels
  - Convenience Store
  - ~~Dance Hall~~ Wellness Center
- Old Reid Gas Station, Laundromat (Hwy 264 and N39 Kin Dah Lichii Junction)
- Old Morgan Auto Repair Service, Conference Building (South of Hwy 264)
- Old Ashley Gas Station, Nursing Home (Summit)
- Multi-Purpose Building on N39 and Red House Road
- Identify sites for mineral/resource collection businesses:
  - Sandstone removal
  - Sand/gravel pits

### 6.3 Tourism Opportunities

As mentioned in the Navajo-Gallup Water Supply Project report, the Navajo Nation captures less than 8 percent of the \$660 million annual tourism revenue in the Four Corners Area. If an enhanced tourist infrastructure increases that percentage to 12 percent, the Navajo Nation's economy would capture an additional \$26 million annually. Area attractions include:

- Hubbell Trading Post is a historic site located in Ganado and operated by the National Park Service. It received 250,000 visits annually in 1995.
- Kin Dah Lichii Tribal Park had 7,000 visitors in 1995. Facilities include self-guided trails, a picnic area and dry camp.
- Ganado Lake is within the chapter. The lake was originally built for irrigation purposes but plans are to also provide recreational uses. The dam was recently

rebuilt to a higher elevation to hold more water. Campground and picnic facilities are planned.

- ~~Navajo Tribal Forest and Summit Campground are located within the chapter. Summit campground is currently closed due to lack of maintenance and vandalism, but remains a prime tourist attraction that the chapter could build on.~~
- Navajo Nation Resources Committee has imposed a moratorium on new homesite leases within the Navajo Forest until a Forest Management plan (FMP) is completed. **However, the chapter has the final approval for new homesites in the forest. In Kin Dah Lichii, few homesite leases exist in the forest area, but most homesites are seasonal "sheep camps".**
- ~~Woodsprings and Cross Canyon Trading Posts could be renovated and provide tourist attractions as well as business opportunities for the chapter.~~
- ~~One family in the chapter currently operates a Bed and Breakfast in their private hogan and Chapter. There is opportunity for other families in the community to follow this example as a business venture.~~



## 7.0 Community and Public Facilities

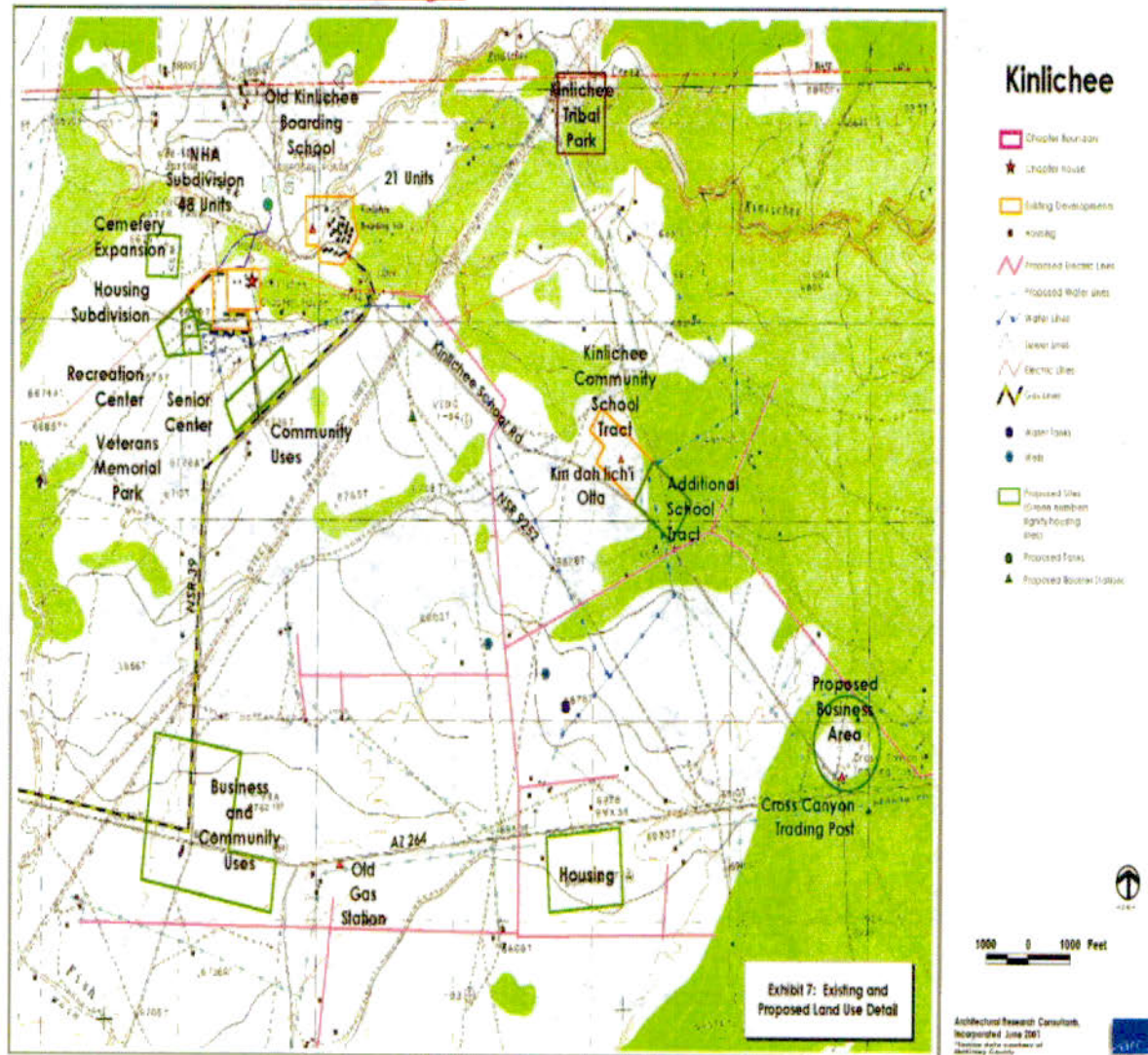
Currently, community facilities include the chapter house and the community school. Proposed community facilities include a recreation center, senior skill center, nursing home, new preschool, fire station, and new middle school. Existing and proposed community uses are listed in Exhibit 8 and shown in Exhibit 7, 9 and 10. Existing and proposed community facilities are also shown in the enclosed map in large scale map in the pocket of this report.

### 7.1 Chapter House Compound existing

The Chapter House was constructed in 1960 and remodeled in 1992 (Exhibit 7). The services provided at the chapter included:



- Community Health Representative
- Adult In-Home Care
- Community Services
- Child Development (Head start)
- Veterans Building/Park
- Cultural Hogan



\*Kinlichee is changed to Kin Dah Lichii per a Chapter Resolution passed at a duly called meeting.

Currently, an historic rock building to the west of the chapter house is being remodeled for use as offices/meeting room for the chapter officials. Also, will be used as a Wellness Center for Community Members.

Proposed

Within the chapter compound or adjacent to it, the chapter is interested in developing a number of community facilities:

- Veteran's Memorial Park



- A new \$175,000 multi-purpose building is proposed for the chapter (1999 CIP request)
- \$250,000 youth recreation center with gym (1999 CIP request)
- \$1,500,000 Senior Skill Center (nursing home and group home) or \$65,000 meal site (1999 CIP request).
- Five acres within a withdrawn 15-acre housing tract will be set aside for senior and recreational uses.

## **7.2 Public Safety Existing**

Police, fire and emergency services are currently provided out of Ganado, AZ.

Proposed

A one-acre site is proposed for a fire department.

## **7.3 Educational Existing**

A preschool is currently located in the chapter compound serving about 25 children.

A new K-8 community school is currently located in Kin Dah Lichii. It opened in October 1998 and operated as a BIA school until July 1999, becoming a grant/charter school. It has 190 students. Grades K-6 are federally (grant) funded. Grades 7-8 were recently added and are state (charter) funded. The school provides transportation on over 500 miles a day in three chapters. Ninety percent of school bus routes are unpaved.

Students also are bussed to public schools in Ganado, AZ. The Ganado Unified School District No. 20 serves grades K-12 with schools located at the following campuses:

- Primary, Intermediate and Middle School located on the main campus in Ganado
- High School campus at Burnside Junction. The high school was constructed in 1987.
- Total enrollment is 2,161 total students in the district in 1996-97, up an average of 2.4% annually over the past 5 years.
- High School enrollment was 716 in 1996-97, up an average of 3.9% annually over the past 5 years.
- Dine College has branches in Ganado and Window Rock. Northern Arizona University (NAU) also has a branch in Ganado. The other closest community college is Northern Pioneer College (NPC) in Holbrook.

Kin da lichii'i O'lta



### **Proposed**

The proposed uses and facilities listed below are to be located at the additional school tract shown in Exhibit 7.

- New \$125,000 larger preschool (1999 CIP request) to be sited at the school.
- Special education center/home at the school
- A 10-acre site has been identified on the eastside of the community school for a new grade 7-8 classroom facility (no site has been identified)
- A 10-acre site has been identified on the eastside of the community school for a new dormitory
- The former approximately 26-acre site of the old Kin Dah Lichii Boarding School is to be transferred from the BIA to the tribe/chapter for use as an alternative site for the new 7-8 grade school
- In the next 20 years, add a local community high school and a two-year branch college.
- Expand the FACE program to children from birth to 4 years of age, involve parents, offer GED and other programs.

### **7.4 Health Care Existing**

The nearest hospital is Sage Memorial Hospital in Ganado. Ft. Defiance Indian Hospital is located in Ft. Defiance.

Proposed

A nursing center (or 175,000 senior group home- 1999 CIP request) has been proposed for the chapter. Two alternate sites have been identified.

## **7.5 Community Centers**

Existing

The existing chapter house serves as a community center.

Proposed

- A 2-acre site at the northwest corner of AZ 264 and NSR 39 has been identified for community activities. The site should be expanded by 10-acres.
- A senior center and skill center are proposed for two sites:
  - Chapter compound, or
  - Old BIA dormitory site (process to transfer from BIA will take time).

## **7.6 Recreation**

Existing

The chapter currently has the following recreation facilities in the chapter compound:

- Baseball field
- Outdoors basketball court.

In addition, Kin Dah Lichii Tribal Park and Summit Campground in the Navajo Forest have picnic and campground facilities that have not been maintained. Summit Campground was recently closed to the public because of vandalism. Ganado Lake is planning picnic and camping facilities.

Proposed

A 250,000-youth recreation center is proposed by the chapter (1999 CIP request). Recreational uses will be located on five acres of a 15-acre tract west of the current NHA subdivision. Other proposed recreational uses include:

- Rodeo grounds
- Summer Youth camp
- Recreational areas: basketball, baseball, soccer, skateboarding, bike trails.
- Walking trail
- Wellness Room

## **7.7 Business Sites**

Open space on North and South Side of Hwy highway 264 for business development. 750 feet on each side

## **7.8 Other**

A CIP request has been made for fencing of the existing 5-acre cemetery (\$125,000)



And expansion of existing cemetery.

### 7.9 Volunteer Services

Kin Dah Lichii Chapter welcomes volunteers in all areas of skills and expertise.

## **Exhibit 8: Existing and Proposed Uses**

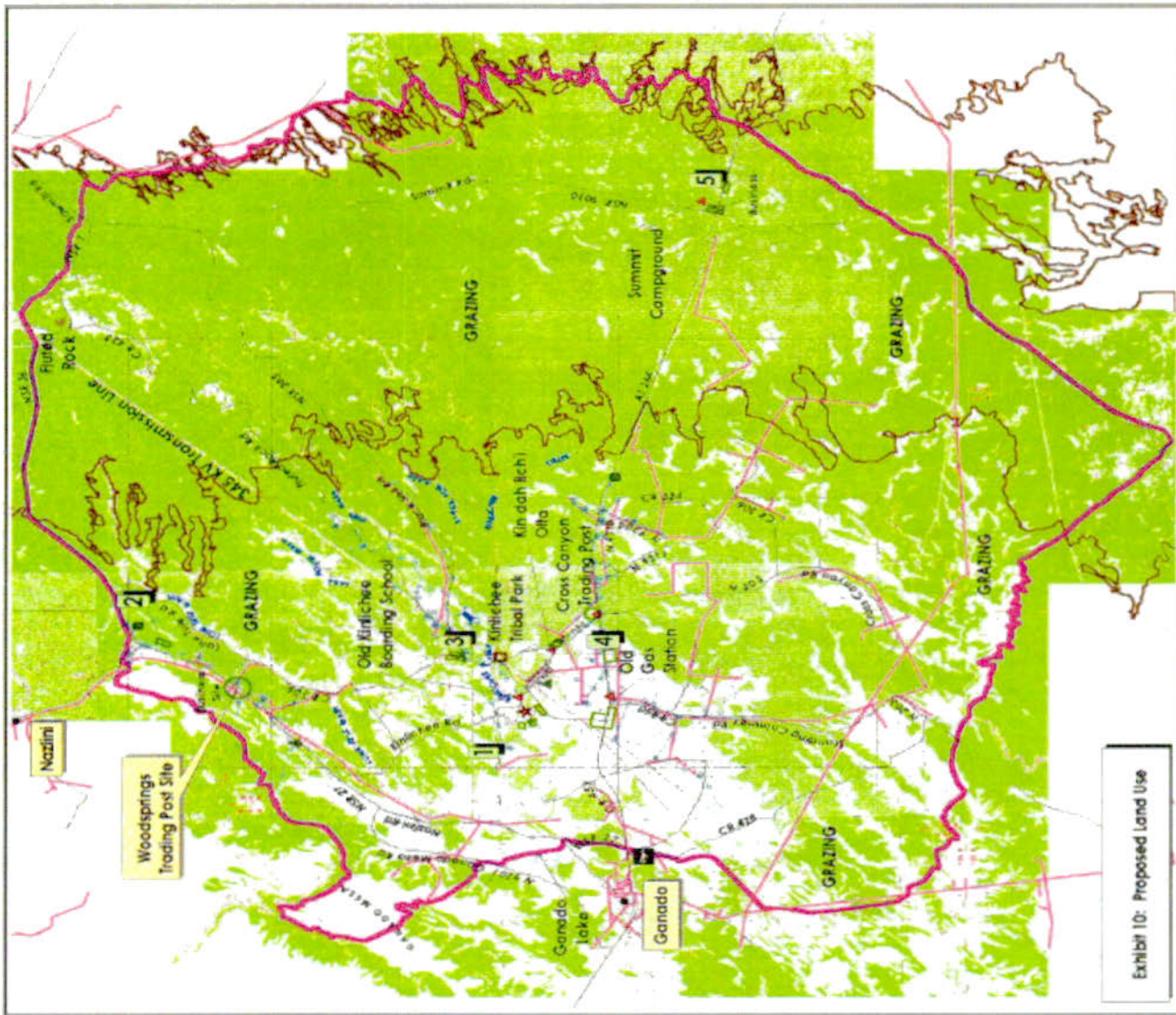
### **Kin Dah Lichii Chapter**

Location	Existing Uses	Acreage	Proposed Uses	Withdrawn
Chapter compound	Chapter house preschool	10	Multi-purpose building. Administrative offices	yes
West of NHA Housing (see 11 for description of housing)		5	Recreation center with gym Veterans Memorial Park 1. Senior citizen Skill center/nursing home Congregate housing Elderly group home/daycare	yes
Undetermined		10-20?	Sports field?	No
Undetermined		1 ND	Fire station? Peace making court?	No No
Adjacent to compound	Vacant	20		no
Old BIA Dormitories	BIA housing	-26	2 senior citizens Skill/nursing home 1 Grades 6-8 school museum	yes
Cemetery	Cemetery Vacant	ND	Expand to the west	Yes no
Ganado Airstrip Site	Runway	ND	New airport	yes
AZ 264 & NN29 Intersection NW Corner Extend area Undetermined Undetermined	Vacant	2 10 ND ND	Community activities  Community high school? Satellite community college?	Yes No No No
Woodsprings Trading Post	Old trading post	2	Gas/convenience store	yes
Kin Dah Lichii' Olta	Existing new school	40	Add new preschool	Yes
Northside	Vacant	ND	Sport facilities?	No
Southside	Vacant	20	40 teacher units	No
Eastside	Vacant	10	Grades 7 & 8 school	No
Eastside	vacant	10 ND	Dormitory Bus maintenance shop	No No
Cross Canyon Trading post	Old trading post	3	Shop/horseback riding	Yes

Southwest Southwest Southwest	Old gas station	2 4 ND	Feedstore/veterinarian Gas/convenience store Solid waste transfer station	Yes Yes No
Summit campground		ND	Businesses	ND
NHA housing area (site 1)  Extend area to the west	48 NHA housing Vacant vacant	-30 3 15	Housing office 10 homeowner units	Yes Yes Yes
Cross Canon (site 2)	Vacant	28.6	Clustered housing	no
North of Kinlichee Ruins (Site 3)	Vacant	35.5	Clustered housing	No
Nazlini turnoff (site 4)	Vacant	49	Clustered housing	no
Summit (site 5)	Scattered homes	15	Clustered housing	Yes
Total housing sites		143.1		







- Chapter Boundary
- ★ Chapter House
- ~ Forest Boundary
- Proposed Sites (Green numbers signify housing sites)
- Proposed Tanks
- ▲ Proposed Booster Stations
- ✈ Proposed Check Dam
- ~ Proposed Electric Lines
- ~ Proposed Water Lines

# Kinlichee



Architectural Research Consultants, Incorporated  
November 2000  
Kinlichee, Navajo and Hopi, AZ, USA

Exhibit 10: Proposed Land Use

## C. Infrastructure Analysis

### 1.0 Existing Infrastructure

This section describes the existing and needed infrastructure, such as roads and utilities, in the community (Exhibits 9 and 10). Existing and proposed infrastructure is also shown in the enclosed large-scale map in the pocket of this report.

### 1.1 Transportation

#### Roads

##### • *Existing*

AZ 264 is the major highway that crosses the chapter with the heaviest volume of traffic. The main roadway into the chapter is Kin Dah Lichii Road (N39), with 158 average daily traffic counts (ADTs), paved as far as the old Boarding School, and then dirt to paved Nazlini Road (N27/N26).

Other major roadways, all unpaved, include:

- N 26
- CR 428
- CR 306
- N 931
- Ganado Mesa Road (N9020)
- Lone Tule Road (CR 3085)
- Fluted Rock Road (CR 423)
- Black Soil Road (N203)
- Summit Road (N9010)
- Standing Chimney Road (CR 450)
- Cross Canyon Road (N 208)

Roads are not regularly graded or maintained.

##### • *Proposed*

Proposed (1999 CIP requests) road improvements include:

- Pave from N-39 to new school and AZ 264 to new school - \$5.5 million
- Pave from N-39 to Woodsprings Rd. N-27 - \$10.6 million
- Gravel 45 miles of school bus routes - \$8.5 million, state trying to get funds from state routes
- Repair 10 bridges - \$500,000
- Build 6 new bridges - \$5.5 million

Other roadways also need to be paved:

##### • *Pave Fluted Rock Road*

Scheduled road improvements include:

- NDOT has scheduled to pave N203 and N9252
- The chapter would like the road to the cemetery paved
- NDOT will be replacing 3 bridges over the Kin Dah Lichii Wash N39 scheduled FY '00



- NDOT will be replacing Lone Tule Wash Bridge N641
- ADOT is proposing to widen AZ264 to 4 lanes from Burnside Junction to Kin Dah Lichii and from St. Michaels to the Summit area. At the Summit, AZ 264 has 5,500 ADTs (in 1998), projected to increase to 7,900 ADTs in 2018

#### **Transit**

- ***Existing***

Currently, buses operate along AZ 264 during mornings and evenings.

- ***Proposed***

NDOT will be adding several bus routes originating in Window Rock with stops in Kin Dah Lichii:

- Route 1 to Chambers
- Route 6 to Chinle
- Route 7 to Holbrook
- Route 8 to Flagstaff

#### **Airport**

- ***Existing***

An existing dirt runway serving Ganado is located in the Kin Dah Lichii boundary

- ***Proposed***

NDOT has scheduled to add 1,200 to 1,500 feet of runway to the airport located in Kin Dah Lichii for Ganado. A land dispute has held up the project.

### **1.2 Utilities**

#### **Gas**

- ***Existing***

Three Two major gas pipelines run through the Kin Dah Lichii Chapter community, **does not benefit the community**. Propane gas tanks are more widely used among households.

- El Paso Gas Line
- Transwestern Pipeline

- ***Proposed***

A 1999 CIP request is to provide propane to 187 families for a cost of \$1.5 million

#### **Electric**

- ***Existing***

Two major 345 KV transmission lines run through the chapter. NTUA provides residential electric service. Currently, only houses near the chapter house, along Fluted Rock Road, and in the Summit, area is served with power.

- ***Proposed***

A 1999 CIP request for extending powerlines to 226 families was estimated at \$500,000. NTUA is proposing to install new single-phase power lines throughout the chapter to serve a majority of residences.

#### **Water**

- ***Existing***



Currently, only the chapter compound area is served by water. A few areas in the Ganado Mesa area and along Nazlini Road are also served by water lines. The area is also served by a water storage tank (170,000) and 2 wells (37 gallons per minute (gpm), depth 390 feet; 30 gpm, depth 355 feet). Approximately 75 homes are serviced by running water.

- ***Proposed***

IHS-OEH is planning three major water line projects in the chapter by 2005. A 1999 CIP request for waterline extension to 226 families. Included:

- Woodsprings area, serving 65 homes
- Cross Canyon area southeast, serving 44 homes
- Area north of the chapter house, serving 21 homes
- SW Cross Canyon area serving 40 homes

New water storage tanks (120K gallon) are proposed by 2001 as well as a new booster station (40 gpm).

A May 7, 2000 settlement discussion report submitted by the Navajo Nation Department of Water Resources indicated a lone range water planning is being provided through the Little Colorado River (LCR) Water Rights Negotiations process within the State of Arizona. The Little Colorado River Water Rights negotiations been active since 1994 and continue today. Kin Dah Lichii Chapter is in the Little Colorado River Basin, so the water rights for the Navajo Nation and the Chapter will be determined when water rights for the Arizona portion of the Little Colorado River Basin is adjudicated.

One of the projects which the Navajo Nation would like to achieve in the Little Colorado River settlement is the C-Aquifer Ganado Groundwater Project. In the C-Aquifer Ganado Groundwater Project, a well field drawing water from the C-Aquifer is proposed through the LCR negotiations which will meet the water demands for year 2040.

### ***Sewer***

- ***Existing***

A four-cell sewer lagoon system is currently serving 65 homes and the chapter facility. The lagoon is located in the vicinity of the former boarding school. I.H.S. is expanding the disposal cell #3 by 2.05 acres to accommodate an additional 105 homes. This will provide capacity for any new housing in the vicinity.

### ***Solid Waste***

- ***Existing***

No existing transfer station is located in the chapter. The nearest transfer station is located in Fort Defiance, Arizona. The chapter currently contracts with the Navajo Sanitation to collect trash. The closest regional landfill is in Thoreau, New Mexico.

- ***Proposed***

A proposed transfer station is to be located at intersection N39 and AZ 264 on the southside. A 1999 CIP request for a transfer station was estimated at \$1.5 million. A trash collection service is also desired by the community for the NHA housing area.

### ***1.3 Telephone/Communications***

- ***Existing***

The NHA subdivision and chapter house are the primary areas currently served by telephone.

- ***Proposed***

The chapter would like to extend telephone service to more houses. Telephone lines are being strung along the road to the Old Cross Canyon Trading Post area. Navajo Communications Company is running a line from St. Michaels along the northside of the highway to just past the summit. Navajo Nation Communications will be installing 35 miles of upgrade.

Cable TV service is also desired by the community. Navajo Communications will be installing cable lines from Ganado to follow telephone lines.

## **2.0 Site Analysis -Abolished**

The Chapter will no longer recognized clustered homes by Navajo Housing Authority (NHA)

~~This section assesses the proposed housing sites in terms of their need for additional infrastructure (Exhibits 13a—13e).~~

### **~~2.1—Site 1:~~**

#### **~~Site Accessibility~~**

~~The site is located west of the existing Navajo Housing Authority (NHA) project housing site. The NHA housing site is adjacent to the Kin Dah Liehii Chapter House.~~

~~The site is accessible by Navajo Route N39, paved Navajo Route, serving the NHA housing, Kin Dah Liehii Chapter, BIA housing and Elementary School.~~

~~It is anticipated that the new housing site will be made accessible from the existing NHA street going east to west. There will be minimal cost for site access road extension.~~

#### **~~Site-Related Aspects~~**

~~Reporting: There are several existing NHA housing units adjacent to the site and at least five existing residents living directly south of the NHA housing area. A concrete basketball court sits on the southeast corner of the proposed site, which the Community Land Use Planning Committee wishes to convert the area to a play court for residents. In addition, there are dirt roads going through the site, most likely used by community ranchers.~~

~~**Existing Buildings:** There are no existing buildings on the proposed site.~~

#### **~~Existing Utilities~~**

~~All utilities are available from the adjacent housing site.~~

#### **~~Project Utilities Development~~**

~~No major utility development is anticipated~~

#### **~~Special Site Development Requirements~~**

~~No special site development will be required~~

#### **~~Legal Considerations~~**



The chapter will be required to acquire land through the Navajo Nation Land Office and comply with all land withdrawal procedures.

## **2.2 — Site 2:**

### **Site Accessibility**

The site is located northwest of the chapter, near the Nazlini and Kin Dah Lichii Chapter boundary. There are three parcels identified by the Community Land Use Planning Committee. All parcels are accessible from Navajo Route 27.

### **Site Related Aspects**

There are three housing sites within a mile radius of the proposed site. The 14.4 acres parcels have two homes sites. The 12 acres parcel is located next to a windmill and a home site. The 58 acres site has no existing structure or home sites.

**Existing Buildings:** The 14.4 acres site has two residents residing within the proposed site. There is a wooden structure home and a mobile home.

### **Existing Utilities**

There are no existing utilities noted within the parcels. All required utilities would need to be extended to the site.

### **Project Utilities Development**

**Water:** A proposed six-inch water line will bisect the three parcels. The water line will be easily accessible from any of the three parcels.

**Sewer:** Approximately four to six acre new sanitary sewer collection and treatment system will need to be developed and located at least 1000 feet from the nearest building.

**Gas:** A four-inch gas line runs parallel to 58 acres parcel west boundary. The gas line can be made accessible to the two other parcels.

**Electrical:** A single phase line runs parallel with the gas line. The power source can be easily accessible to the three parcels.

### **Special Site Development Requirements**

Further engineering review of the well-defined drainages will need to be considered on all three parcels.

The earthwork needs to be designed to minimize costs such as reusing earth material on-site for building foundation. Further geotechnical investigation is recommended to determine proper building foundation design because of the high clay content in the soils.

### **Legal Considerations**

The chapter will need to review the home site located within the three sites and possibly consult with the grazing permittees for right-of ways and housing development.

Further consultation is required for the archaeological site indicated within the 58 acres parcel. Archaeological clearances will most likely be required before housing development begins.

## **2.3 — Site 3:**

### **Site Accessibility**



~~The site is located approximately 2 1/2 miles north of the chapter house.~~

~~There are some community residents located southeast of the site.~~

~~The site is accessible from three dirt roads: CR305 Lone Tule Road, CR423 Fluted Rock Road and NSR203 Black Soil Road.~~

#### ~~*Site-Related Aspects*~~

~~Existing Buildings: There are no existing buildings noted on the site. However, several home sites with housing were noted southeast of the site.~~

#### ~~*Existing Utilities*~~

~~Water: No water lines are located on site.~~

~~Sewer: No sewer systems are located on site.~~

~~Gas: No gas lines are on site.~~

~~Electrical: No electrical line runs through the site.~~

~~Telephone: No telephone services exist on the site.~~

#### ~~*Project Utilities Development*~~

~~Water: The site is near a proposed water line but may need to be upgraded to meet fire flow demands.~~

~~Sewer: Most cluster housing projects will allow a four acres sanitary sewer collection system be developed or possible tie in to the existing sewer lagoon system.~~

~~Electrical: No electrical line runs through the site.~~

~~Telephone: No telephone services exist on the site.~~

#### ~~*Project Utilities Development*~~

~~Water: The site is near a proposed water line but may need to be upgraded to meet fire flow demands.~~

~~Sewer: Most cluster housing projects will allow a four acres sanitary sewer collection system be developed or possible tie in to the existing sewer lagoon system.~~

~~Gas: Individual LP tanks will most likely be developed for housing development.~~

~~Electrical: There is a single-phase electrical line located 400 feet south of the site and could easily be extended to the proposed site. Further engineering review will be required to assure there is adequate capacity.~~

~~Telephone: a 50 pair telephone line could be extended from the chapter but may be added expense to the development.~~

#### ~~*Special Site Development Requirements*~~

~~The site will require further soil investigation to determine adequate soil for the housing development. There could be rock outcrops on the hillside.~~

#### ***Legal Considerations***

~~Land withdrawal will need to go through proper procedures and consult with the historical preservation office for archaeological and environmental clearances.~~

#### **Site 4:**

##### ***Site Accessibility***

The site is located south of Arizona State Route 264 and southeast of the chapter house.

The 49 acres site can be accessible from the adjacent Arizona State Route 264.

##### ***Site Related Aspects***

~~Currently, there are no residents living within the site. The closest resident is located approximately a half mile west of the site.~~

##### ***Existing Utilities***

The only utility available is a telephone line running parallel on Arizona State Route 264.

##### **Project Utilities Development**

~~**Water:** A 6-inch water line extension will be required from the nearby water tank located north of the site.~~

~~**Sewer:** Four to six acres new sanitary sewer collection system and treatment system will need to be developed. The required distance for sewer lagoons is 1,000 feet away from the nearest building.~~

~~**Gas:** A gas line extension or individual LP tanks will need to be developed.~~

~~**Electrical:** An electrical line extension will be required from a single-phase line located north of the site. Further engineer evaluation of the capacity will need to be reviewed by the utility authority and electrical engineers.~~

~~**Telephone:** Telephone services should not be an extra cost to the site since its location is adjacent to the site.~~

##### ***Special Site Development Requirements***

~~Further soil investigation review will be required to determine the design requirements for the building foundation system.~~

~~An access road will need to be located in such a way to prevent a traffic safety hazard. The hillside located east of the site will minimize vehicular and traffic visibility. One recommendation is installing traffic turn lanes. However, any road modification will require consultation with the Arizona Department of Transportation.~~

#### ***Legal Considerations***

~~Proper land withdrawal proceedings will need to be carried out through the Navajo Nation land office.~~

#### **Site 5:**

##### ***Site accessibility***

~~The site is located south of Arizona State Route 264 and approximately 5 miles west of St. Michaels Chapter. The area is better known as the Summit.~~

~~The site is easily accessible from Arizona State Route 264. However, special consideration for frontage road needs to be implemented because of the future plans to widen the road to four lanes.~~

#### ***Site-Related Aspects***

~~There are several residents located outside the proposed site. There are no existing buildings noted on the site.~~

#### ***Existing Utilities***

~~A telephone line is running parallel with Arizona State Route 264 and is on site. No other utilities exist on site.~~

#### ***Project Utilities Development***

~~Water: A six-inch water line will be required to be extended from St. Michaels. This water line extension is proposed for development by L.H.S. in the next few years.~~

~~Sewer: Four to six acres new sanitary sewer collection system and treatment system will need to be developed. The minimum distance between a sewer lagoon and nearest building structure is 1,000 feet.~~

~~Gas: Individual LP tanks will need to be installed for all housing units.~~

~~Electrical: An electrical extension from across the road (Arizona State Route 264) will be required. However, further review is necessary to determine load capacity.~~

~~Telephone: A telephone line extension will be required but should not be an extra cost to the proposed site.~~

#### ***Special Site Development Requirements***

~~Further soil investigation will be required to determine proper building foundation design.~~

~~The housing site will need to be set back to meet the required distance for State Route 264 and the proposed frontage road.~~

#### ***Legal Consideration***

~~The chapter will be required to follow proper procedures to obtain land withdrawal from the Navajo Nation Land Department.~~

## **D. Suitability Analysis**

### **1.0 Overview of Natural and Cultural Resources**

This section provides an overview of natural and cultural resources in the chapter.

#### **1.1 Natural Resources**

##### ***Geology/Soil***

**Kin Dah Lichii** lies with the Colorado Plateau physiographic province, which is characterized by mesas that dip gently to the north and broad valleys with intermittent streams. The plateau



encompasses much of western Colorado, eastern Utah, northeastern Arizona, and northwestern New Mexico. More specifically, **Kin Dah Lichii** is located in the Navajo section, a poorly defined area of scarped plateaus that lack the degree of dissection seen elsewhere in the province. The rocks in this section have also been less deformed than in other areas of the Colorado Plateau, and the surface is characterized by mesas, buttes, and cuestas rather than clinal ridges and hogbacks. The section is bounded on the south and west by the Little Colorado River and the Echo cliffs monocline near the Colorado River. The Navajo-Hope volcanic field, the Black Mesa Basin, the Defiance and Zuni unwarps and the San Juan Basin are major structural features of the Navajo section in northeastern Arizona and northwestern New Mexico. Of these features, **Kin Dah Lichii** lies between the San Juan Basin and the Zuni uplift.

General soils in the area are classified as being mesic arid soils. More specifically, they are classified as Sheppard-Fruitland-Rock Outcrop Association. This association consists of somewhat excessively drained and well-drained soils and rock outcrops on plains and plateaus. The soils are formed in aeolian sandy material derived from sandstone and shale. Limitations for homesite development on these soils are few. The sandy texture of the Sheppard soils. However, is a severe limitation to shallow excavations (Hendricks 1985).

#### ***Groundwater***

The Chaco slope is identified as an area of high groundwater content and quality and there is also good availability and quality of groundwater in the higher elevation areas south of the Chaco Slope (Goodman 1982:46-47).

#### ***Surface Water***

**Kin Dah Lichii** primarily drains into the Puerco River. The headwaters of the Puerco River begin on the Continental Divide northeast and southeast of Hosta Butte. Also found within Kin Dah Lichii are deep arroyos and wide alluvial fans and washers.

#### ***Vegetation***

**Kin Dah Lichii** covers a wide variety of vegetation types from desert grassland to Ponderosa Pine forest. The higher elevations, towards the east side of the chapter contain Ponderosa Pine habitat near elevation 6,000 – 8,000 feet above sea level. This forest grows in a climate where moisture is relatively limited. Ponderosa pine usually dominates the forest, but other species such as gamble oak, locust, mountain mahogany, cliffrose and quaking aspen. Many stands of ponderosa pine are relatively open or park-like, which permits the growth of grasses, forbs, shrubs, and broadleaf trees as understory.

The pinon/juniper woodland exists between 4,500 and 7,500 feet in elevation. These areas are semi-arid to dry. Pinon pine and one-seed juniper are the dominant species, with the juniper showing more dominance below 6,000 feet in elevation. Grassland, chaparral, or desert scrub may form the understory beneath and between the woodland trees.

Grassland occurs between 5,000 and 3,000 feet in elevation. At higher elevation, plains grasslands such as black grama, blue grama, and sideoats grama. Desert grasslands are more common at the lower elevations where cheatgrass brome, foxtail barley, galleta, squirreltail, and Indian ricegrass are the most abundant grass species. Mixed with these are a number of subshrubs and shrubs including snakeweed, rabbitbrush, four-wing saltbush, and pale wolfberry or desert-thorn.

#### ***Wildlife***



Species found at higher elevations include, deer, elk, black bear, bobcat, mountain lion, fox, coyote, bats squirrels, chipmunks, cottontails, jackrabbits, small rodents, porcupines, weasels, and raccoon to name a few. Most of these species will also utilize habitat in the pinon/juniper woodland and grassland. Birds are diverse at the higher elevations and include such species as: stellar jays, ravens, pine siskins, flammulated owls, spotted owls, saw-whet owls, wild turkey, goshawks and other hawks, eagles, vultures and falcons.

At the lower elevations, wildlife would typically include pronghorn, deer, coyotes, foxes, cottontails, jackrabbits, prairie dogs, small rodents, falcons, hawks, burrowing owls, lizards and snakes.

The open grasslands of the region provide good hunting for hawks, falcons, and eagles. The sandstone escarpment could provide nesting habitat or roosting sites, and the scattered pinon-junipers could provide refuge. Songbird diversity is expected to be low because of the sparse nesting cover. Waterfowl and shorebirds may pass through the region during migration.

Much of the area is used for grazing cattle, sheep and other domestic livestock.

#### Threatened and Endangered Species

The following description provides background information regarding plant and animal species that have been afforded protected status by the Navajo Nation and are known to occur in the region or in habitats similar to those found on the proposed housing sites. The list of species of concern was provided through the database inquiry with the Navajo Natural Heritage Program (Nelson 2000). Species of concern include protected, candidate, and other rare or otherwise sensitive species, including certain native species and species of economic or cultural significance. For each species, the following tribal and federal statuses are indicated: Navajo Endangered Species List (NESL); federal Endangered Species Act (ESA); Migratory Bird Treaty Act (MBTA); and, Eagle Protection Act (EPA). No legal protection is afforded species with only ESA-candidate or NESL-group 4 status.

There is no designated critical habitat for federally listed species on the proposed housing sites. However, prior to development of any of the proposed housing sites, the Navajo Natural Heritage Program would need to be contacted for an updated list of species of concern and biological surveys would be required for those listed species during the appropriate field season and following established protocol. As of May 2000, species of concern that could occur on the project sites are briefly discussed below.

The Black-Footed Ferret (ESA-endangered, NESL-group 2) is usually found in association with prairie dog towns in grassland plains and surrounding mountain bases up to 10,500 feet above sea level. A survey for black-footed ferrets is required if a prairie dog town is present and larger than 80 acres (for black-tailed prairie dogs) or 200 acres (for white-tailed and Gunnison's prairie dogs).

#### The Southwestern Willow Flycatcher

(ESA-endangered, NESL-group 2, MBTA) inhabits thickets, riparian woodlands, pastures, and brushy areas. At low elevations, dense willow, cottonwood, and tamarisk thickets and woodland along streams and rivers are considered habitat, and (at high elevations) pure, streamside stands of Geyer willow are preferred.

The Golden Eagle (NESL-group 3, MBTA, EPA) inhabits open country from barren areas to open coniferous forests. They are primarily found in hilly and mountainous regions, but also in rugged deserts, on the plains, and in tundra. The golden eagle prefers cliffs and large trees with large



horizontal branches for roosting and perching. The golden eagle nests on cliff ledges, preferably overlooking grasslands; 10 to 100 feet above ground in dead or live trees; in artificial structures; or on the ground. In western mountains, golden eagle nest at elevations of 4,000 to 10,000 feet. Pairs may use the same nest year after year or use alternate nests in successive years. Golden eagles are most likely to use trees for nesting if cliff sites are unavailable. The golden eagle generally forages within 4.4 miles (7 km) of the nest. Trees, live or dead, are often used for perches if they are near open areas where prey can easily be seen.

The Mountain Plover (NESL- group 4, ESA-candidate, MBTA) is generally considered an inhabitant of the arid short-grass prairie, which is dominated by blue grama and buffalo grass with scattered clumps of cacti and forbs. More recently it has been considered a disturbed-prairie or a semi-desert species. Mountain plovers are very selective in choosing nest sites, preferring expansive, arid flats with very short grass and a high proportion of bare ground. In parts of its breeding range the mountain plover selectively nests in prairie dog towns. Prairie dogs create unique patches of habitat ideal for mountain plovers. In short-grass prairie, prairie dog grazing promotes the short grasses like buffalo grass and grama grasses, and their digging creates areas of bare soil important for plover nesting. Prairie dog towns also attract many species of insects. Mountain plovers will forage on slopes and ridges. Adults with young have been observed in tall vegetation and around livestock watering facilities, which probably provide an abundance of insects. Adults also use plowed fields.

Ferruginous Hawks (NESL-group 3, MBTA) are found in open habitats, such as grasslands, shrub steppes, sagebrush, deserts, saltbush-greasewood shrublands, and outer edges of pinon -pine and other forests. It nests in small trees or rock outcrops or on the ground or haystacks if no other site is available. Generally, they avoid high elevations, narrow canyons, and interior regions of forests. Trees, utility poles and towers, fence posts, rocky outcrops, cliffs, and the ground are perching substrates used by ferruginous hawks.

Suitable habitat for the Mexican Spotted Owl is generally described as a relatively closed canopy ponderosa pine/mixed conifer forest associated with steep canyons (AGFD 1988). This species is thought to generally require the cool microclimates provided by these types of habitats.

Peregrine Falcons (NESL-group 3, MBTA) are birds of open spaces usually associated with high cliffs and bluffs overlooking rivers and coasts. Recently many cities with tall buildings have become home to pairs of peregrines. Many populations are migratory (their name means "wandering falcon") and will travel great distances. Their nest is a scrape made on the bare rock of a cliff, where 2-4 eggs are laid. There are also a few records of tree-nesting peregrine falcons in the eastern United States. Recently many cities in North America have had peregrines nesting on the ledges of tall buildings or under bridges. The most spectacular of hunters, peregrines feed almost exclusively on birds they take in the air. High-speed dives enable peregrines catch everything from songbirds to herons and ducks.

The Western Seep Fritillary (NESL-group 3), a butterfly, inhabits riparian areas with enclosed or partially enclosed canopy. This butterfly has been found in streamside meadows and open seepage areas in desert landscapes in the upper Sonoran life zone. The presence of violets, the larval food source, is a necessary habitat component for this species, as well as nearby nectar sources for adults, which includes various thistles (NNHP 1998).

On the Navajo Nation, however, this species occurs in areas that are neither enclosed nor partially enclosed. Timber harvest activities that produce siltation in drainages would affect this species (NNHP 1998).



The Bluehead Sucker (NESL-group 4) is found in small numbers in Grand Canyon and can inhabit swift rocky areas, and can be seen in spring spawning runs in very shallow swift water (e.g., Shinumo, Kanab creeks). This fish is common in some reaches of the Colorado and Green rivers and their tributaries in the upper basin with fewer numbers in the lower basin. It is also found in other rivers in western North America and is protected by the States of Colorado, Utah, New Mexico, Arizona, California. Major threats to this species include flow depletion, altered water chemistry, flooded habitat from reservoirs, introduced parasites and diseases, competition and predation from introduced white suckers (Valdez 1993).

The Speckled Dace (endemic species) is a common fish in Grand Canyon. This fish is found primarily in riffles, shorelines, backwaters, and tributaries in Grand Canyon. It feeds on small insects and crustaceans, and their small size provides a readily available food source for predaceous fish in Grand Canyon, such as large trout and channel catfish. This fish spawns in tributaries in the spring and summer. Speckled dace appeared widespread in the Colorado River basin and throughout the western U.S., but their status and population trends are unknown (Valdez 1993).

The Chuska Tassel-eared Squirrel (endemic species) is confined to the Colorado Plateau and the southern Rocky Mountains of Colorado, Utah, Arizona, and New Mexico. The distribution of tassel-eared squirrel subspecies in the Southwest is coincident with the disjunct ponderosa pine forests. In Arizona ponderosa pine forests are most extensive between 5,500 and 8,500 feet (1,676-2,590 m) elevation. Tassel-eared squirrel occur in pure ponderosa pine stands with associated Gambel oak, pinon pine, junipers, quaking aspen, and Douglas-fir.

The most abundant deer in Arizona is the Mule Deer (cultural and economic significance). Mule deer are not limited to any one type of terrain, being found from sparse, low deserts to high forested mountains. Generally, they prefer the more rugged country. Deer feed on grasses and forbs in the spring and summer, however, they are primarily browsers. They eat such items as twigs, bark, buds, leaves, and nuts. Important plants in a mule deer's diet include mountain-mahogany, buckbrush, cliffrose, sagebrush, buckthorn, juniper, and oak. Most feeding is done at dawn and dusk, although human activity may cause a shift to more feeding at night. In Arizona, predation on deer is mainly by coyotes, bobcats, and mountain lions.

The Mountain Lion (an endemic species) occurs only in the western hemisphere and has one of the most extensive ranges of any land mammal, from the Straights of Magellan in South America to the Canadian Yukon. The major reduction in mountain lion distribution has come as a result of its extirpation from areas of historic range in the eastern United States and Canada. In Arizona mountain lions are absent only from the extremely arid southwestern portions of the state and those areas heavily impacted by human development. In general, the distribution of mountain lions in Arizona corresponds with the distribution of its major prey species, deer.

Rocky Mountain Elk (economic significance) were at one time the most widely distributed member of the deer family in North America – found everywhere except the Great Basin Desert and the Southern coastal plains. Summer elk range is typically within a ½ mile of water. Winter range is often the limiting factor for elk herds as only about 10 percent of their total habitat is winter range. Elk prefer the summer range, moving to high elevations early and staying until absolutely forced down by snow depth. Summer range varies from 7,000 feet in the mixed conifers to 10,000+ in the spruce fir-sub-alpine belt. Winter range varies from 5,500 to 6,500 feet in Arizona, the pinon-juniper zone.



Wild Turkeys (cultural and economic significance) are found throughout the Western United States primarily in the ponderosa pine forests of Utah, Idaho, Washington, Oregon, California, Montana, Wyoming, and South Dakota. Merriam turkey can be found not only in ponderosa pine forest but also other vegetation types in elevations ranging from 3,500 to 10,000 feet above sea level. In Arizona, they are found in much of the ponderosa pine forest north of the Gila River.

Black Bears (cultural and economic significance) are the most common and widely distributed of the three North American bears. In Arizona the black bear is found in most woodland habitats, including pinon-juniper, encinal, coniferous forest, and chaparral. An interesting footnote to black bear distribution in Arizona is the absence of any sizable population of black bears north of the Colorado River.

Waterfowl and Shorebirds will be found in close proximity to wetlands and watercourses.

## 1.2 Cultural Resources

Cultural resources are defined as objects, structures, locations, or natural features that reflect the culture of a human group. Protection of culture resources is granted under several management procedures, laws, statutes, and amendments, including the National Historic Preservation Act of 1966, as amended; the Archaeological and Historic Preservation Act of 1974; the Archaeological Resources Protection Act of 1979; the American Indian Freedom of Religion Act; and the Native American Graves Protection and Repatriation Act. Cultural resources are evaluated by professionals for their potential of inclusion on the National Register of Historic Places. The criteria used to evaluate these resources are as follows:

The quality of significance in American history, architecture, archeology, engineering, and culture is present in districts, sites, buildings, structures, and objects that possess integrity of location, design, setting, materials, workmanship, feeling, and association, and that (a) are associated with events that have made a significant contribution to the broad patterns of our history; or (b) are associated with the lives of persons significant in our past; or (c) embody the distinctive characteristic of a type, period, or method of construction, or that represent the work of a master, or possess high artistic values, or represent a significant distinguishable entity whose components may lack individual distinction; or (d) have yielded or may be likely to yield information important in history or prehistory.

The following discussion is intended to provide an overview of human development in the region. Existing data on the project sites are discussed in detail in the following section; the information provided below is intended to provide the reader with a general overview of cultural resources in the region.

- ***Paleo-Indian Period***

This period, which came to an end around 6,000 B.C., was composed of the Clovis, Folsom, and Cody cultures. Artifacts from this time period indicate that these cultures hunted large mammals, such as mammoth, horse and camel – following these herds across the land.

- ***Archaic Period***

The Archaic period lasted from between around 6,000 B.C. to around 400 B.C. The human groups of the Southwest hunted bison, deer, and small mammals and gathered seeds and plants. Gradually, these populations begin to settle in more permanent locations, and there is evidence of primitive attempts to cultivate such plants as corn and squash.



- ***Basketmaker II-III Period***

This period lasted from around 400 B.C. to about 700-750 A.D. Population became much more sedentary than in previous periods, living often in small settlements of semi-buried pithouses under large rock overhangs. They wove baskets, clothing, and many other personal goods out of fibers, grew much of their own food, and hunted game (Ferguson and Rohn 1987). Continuing human development led to the Basketmaker II culture, beginning about 400 A.D. It is characterized by "pithouse village, ceramics, the bow and arrow, and some large structures" that would eventually be replaced by great kivas.

- ***Anasazi Period***

The name Anasazi Period originated from the Navajo, which today is popularly translated as "the ancient ones" but is more accurately translated as "ancient enemies". For their part, the Hopi and Zuni, who claim direct ancestry to the Anasazi, use the names Hisatsinon and Enote, respectively for Anasazi. The Anasazi culture is divided into three separate periods, as follows: Pueblo I (700-900), Pueblo II (900-1100), and Pueblo III (1100-1300). During these periods, cultures advanced in social organization, architecture, irrigation, horticulture, pottery, trade, and communication. Examples of these eras include the Cliff Palace in Mesa Verde and Pueblo Bonito in Chaco Canyon. In the last twenty years, an impressive network of roads, often 30 feet wide and running in straight lines in defiance of local topography, have been discovered that emanate from Chaco Canyon to numerous outlying sites.

The Anasazi culture began a long period of decline between the mid-1100's and 1300. Evidence appears to indicate that long periods of drought accompanied by human-induced environmental damage brought an end to the Anasazi culture. People gradually migrated out of today's Four Corners region and left it virtually devoid of inhabitants. Their destination often was to the south and west, where they most probably mixed with local populations to create the Acoma, Zuni, and Hopi peoples of today - who claim affinity to the Anasazi. The migration legends of the Zuni and Hopi relate how their member clans migrated for many years throughout the Anasazi region in their quests to find the final homes they believe their gods destined them to have.

It was during this period that the Navajo likely migrated into northwestern New Mexico. Various authorities have estimated the timing of Navajo entry into the area to be as early as 1000 and as late as 1525. It is reasonably certain that the Navajos, members of the Apachean tribes, who in turn were associated with the Athapaskan culture, were at least on the northern periphery of the Anasazi region around 300.

The Navajo were nomadic people who apparently migrated along the Rock Mountains from much further north and may have been joined by smaller numbers of their kinsmen from California. This migration could have begun a thousand years ago and involved lengthy processes in which small bands were on the move, eventually settling throughout much of the Southwest (Locke 1992; Brugge 1983). Upon reaching the Four Corners region, they stopped their migration and took up a nomadic lifestyle within the region. They began borrowing various attributes of the indigenous Indians' cultures. Little is known about the Navajo during this time.

- ***Spanish Period***

The Spanish conquistadors, who arrived in 1540 and returned intermittently until the end of the century, constituted the "shock troops" of cultural change to Native American societies in the Southwest. The Spanish made their presence permanent in northern New Mexico with the 1598 expedition of Juan De Onate, who brought 400 soldiers, colonists, priests, and servants to colonize the upper Rio Grande Valley and convert the Indian to Christianity (Simmons 1979). Onate



implemented harsh measures against those tribes who opposed his attempt to establish Spanish dominion over the region.

In the ensuing century, the Spanish instituted their control over the region and its indigenous population. Frustrated in their search for the gold and silver of their legends, the Spanish turned to ranching, trading with the Indians, spreading the faith, and generally trying to settle the region. The Spanish introduced sheep, cattle, and horse to the Southwest. Almost all pueblos suffered substantial population declines because of battles with the Spanish and the Navajo, susceptibility to European diseases, and famine (Simmons 1979).

- ***American Period***

The American period began in 1846 with occupation of the Southwest by American military forces and the establishment of American civil government. The traditional, agrarian society of the Spanish and briefly, Mexicans was replaced by a far more vibrant, commercial, anti-status quo American culture committed to the precepts of Manifest Destiny.

In 1846, General Brigadier Stephen Watts Kearny defeated the Mexican Army in New Mexico and proclaimed the beginning of the American Revolution. During negotiations with the Navajo, the Americans mistakenly killed Chief Narbonna, which led to intense raids on Anglo-American settlements from 1846-1850. In response, the U.S. Army established Fort Defiance in 1851 at the center of Navajo country. In 1862, the Indian scout, Kit Carson, formed a volunteer army to fight the Navajos. He had little difficulty finding recruits due to the amount of settlements that Navajo had raided. Carson was ruthless and successful in his strategy of destroying the Navajo's food supply and starving them.

After the Navajos surrendered, General James Carleton devised a plan that forced the tribe to walk to Fort Sumner to be taught a stationary, agriculturally-based way of life. While few deaths occurred during the roundup of Navajos, many died at Fort Sumner and during the hardships of the ensuing Long Walk in 1864. Almost overnight, the Navajos were transformed from the strongest, richest group in the Southwest to near-starving.

## **2.0 Analysis of Individual Sites**

Five potential sites have been identified for future development of housing in the chapter. Sites are shown in Exhibits 13a – 13e.

- Site 1 – located immediately west of the existing NHA housing subdivision
- Site 2 – located near the Nazlini and Kin Dah Lichii chapter boundary, northwest of the chapter house.
- Site 3 – located 2 ½ miles north of the chapter house on Fluted Rock Road.
- Site 4 – located on south side of AZ 264, southeast of the chapter house.
- Site 5 – located on the south side of AZ 264 in the Summit area.

### **2.1 Site 1 (15 acres): *Geology/Soils***

The proposed housing site lies at about 6690 feet above sea level.

General soils (refer to soils maps in Appendix F2) in the area are classified as being mesic arid soils. More specifically, they are classified as Sheppard-Fruitland-Rock Outcrop Association. This association consists of somewhat excessively drained and well-drained soils and rock outcrops on plains and plateaus. The soils are formed in aeolian sandy, material derived from sandstone and shale. Limitations for homesite development on these soils are few. The sandy texture of the Sheppard soils, however, is a severe limitation to shallow excavations (Hendricks 1985).

#### ***Surface Water/Drainage***

No wetlands or well-defined drainages were noted during the site visit.

#### ***Vegetation***

The study area is found within desert grassland biome and is dominated by sagebrush.

#### ***Wildlife***

Wildlife that occupies the study area is expected to be typical of desert grassland habitat. It can be expected that other animals such as prairie dogs, coyotes, jack-rabbits, rodents, foxes, lizards, snakes, small rodents, ravens, and birds of prey could also be a common resident of the study area.

#### ***Environmentally Sensitive Areas***

Environmentally sensitive areas can include such areas as designated habitat for threatened and endangered species, important wildlife areas or corridors, riparian areas, and protected plant populations. The Navajo Natural Heritage Program maintains records of this information that is available for the Navajo Nation. A letter was sent to the Navajo Natural Heritage Program requesting data on known environmentally sensitive areas that may be affected by the proposed housing sites.

At this time no known species of concern has been recorded in the area and are part of the database kept by the Navajo Natural Heritage Program. As of May 2000, they identified that following list of species of concern that could potentially be affected by the proposed undertaking:

- Black-footed Ferret (potential habitat)
- Golden Eagle (potential foraging habitat)
- Mexican Spotted Owl (no habitat present)
- Southwestern Willow Flycatcher (no habitat present)
- Rocky Mountain Elk (potential marginal habitat)
- Bluehead Sucker (no habitat present)
- Speckled Dace (no habitat present)
- Chuska Tasseled-eared squirrel (no habitat present)
- Western seep fritillary (no habitat present)
- Black Bear (no habitat present)
- Peregrine Falcon (potential foraging habitat)
- Wild Turkey (no habitat present)
- Mule Deer (potential marginal habitat)
- Waterfowl (no habitat present)

No vegetation of concern was identified.



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 does not satisfy survey requirements of the Navajo Nation of the Endangered Species Act and is not intended to represent an intensive survey of threatened or endangered species within the study area. Additional consultation with the Navajo Nation Natural Heritage Program would be necessary prior to development because species are continually added and subtracted from their list of species of concern, new data may become available, or new survey protocol may be established between now and the time of development.

There were no traditional cultural properties identified within this site.

If these parcels were selected for specific development activities, Section 106 requirements of the National Historic Preservation Act would normally require a Class II (intensive) survey of the parcel to identify all cultural resources. Of those resources that are determined to be eligible for nomination to the National Register of Historic Places, specific plans would then need to be developed to lessen or eliminate impacts to those sites (e.g., avoidance, protection, or mitigation). Should any significant cultural resources be identified within the parcels during further studies, which would not necessarily imply that this area couldn't be developed. It may be possible that cultural resources can be avoided and protected during development. In other cases, mitigating measures may be proposed that would result in a determination that no adverse impacts are likely to occur. Such mitigating measures may include a data recovery plan for significant sites.

The literature review and assessment of previous cultural resource surveys is intended to provide a summary of the current information that is on file with the Navajo Nation Historic Preservation Department and the Museum of New Mexico Archaeological Records Management Section. The report does not satisfy Section 106 survey requirements of the National Historic Preservation Act and is not intended to represent an intensive survey of cultural resources within the study area. The Navajo Nation Historic Preservation Officer would require additional survey for the parcel prior to implementing development activities. Consultation with the Navajo Historic Preservation Officer would be necessary prior to development of this parcel.

#### Recommendations

Based on the initial inspection of existing environmental data, this parcel has a medium to high suitability for development. Additional threatened and endangered species and cultural resources investigations on the parcel would add cost to the design element, as well as the need to develop a plan for any discovered cultural resources.

### **2.2 Site 2 (58 acres, 12 acres and 14.4 acres)**

#### ***Geology/Soils***

The proposed housing site is divided into three sections on a relatively flat area at an elevation of near 7000 feet above sea level. Several unnamed ephemeral drainages cut through the housing site, the largest being from the southwest corner to the east center border.

General soils (refer to soils maps in Appendix F2) in the area are classified as being mesic arid soils. More specifically, they are classified as Sheppard-Fruitland-Rock Outcrop Association. This association consists of somewhat excessively drained and well-drained soils and rock outcrops on plains and plateaus. The soils are formed in aeolian sandy material derived from sandstone and shale. Limitations for homesite development on these soils are few. The sandy texture of the Sheppard soils, however, is a severe limitation to shallow excavations (Hendricks 1985).



### ***Surface Water/Drainage***

No wetlands were noted during the site visit, but several ephemeral drainages run near the housing site. Any development that would affect these drainages (e.g.g., road crossing, housing development, infrastructure development) would require consultation with the US Army Corps of Engineers.

### ***Vegetation***

The vegetation within the housing site is primarily grassland/juniper habitat type, dominated by sagebrush, juniper, snakeweed, and rabbitbrush.

### ***Wildlife***

Wildlife that occupies the study area is expected to be typical of desert grassland/woodland habitat. Although no animals were noted during a site visit, it can be expected that coyotes, foxes, rabbits, prairie dogs, lizards, snake, small rodents, and bird of prey could be common residents of the study area.

### ***Environmentally Sensitive Areas***

Environmentally sensitive areas can include such areas as designed habitat for threatened and endangered species, important wildlife areas or corridors, riparian areas, and protected plant populations. The Navajo Natural Heritage Program maintains records of this information that is available to for the Navajo Nation. A letter was sent to the Navajo Natural Heritage Program requesting data on known environmentally sensitive areas that may be affected by the proposed housing sites.

At this time no known species of concern has been recorded in the area and are part of the database kept by the Navajo Natural Heritage Program. As of May 2000, they identified the following list of species of concern that could potentially be affected by the proposed undertaking:

- Black-footed Ferret (potential habitat)
- Golden Eagle (potential foraging habitat)
- Southwestern Willow Flycatcher (no habitat present)
- Mountain Plover (potential habitat)
- Peregrine Falcon (potential foraging habitat)
- Bluehead Sucker (no habitat present)
- Western seep fritillary (no habitat present)

No vegetation of concern was identified.

The data request and assessment of species of concern is intended to provide a summary of the concern is intended to provide a summary of the current information that is on file with the Navajo Natural Heritage Program. The report does not satisfy survey requirements of the Navajo Nation or the Endangered Species Act and is not intended to represent an intensive survey of threatened or endangered species within the study area. Additional consultation with the Navajo Nation Natural Heritage Program would necessary prior to development because species are continually added or deleted from their list of species of concern, new data may become available, or new survey protocol may be established between now and the time of development.

### ***Culturally Significant Areas/Traditionally Sensitive Areas***

A Class 1 records check was conducted and found the following: A small portion of the parcels was surveyed earlier this year for a road survey. A large block survey was completed adjacent to

the northwest boundary that identified six sites, of which all but one was recommended as eligible for inclusion on the National Register of Historic Places. Topographically, the sites are mostly located along the rounded ridge crest of Red Mesa. It is common, but not always the case, that this type of location might have a higher density of cultural resources than the east facing slope that characterizes much of the housing site. None of these sites fall within the boundaries considered for housing in this parcel.

There were not traditional cultural properties identified within the site.

If this parcel were selected for specific development activities, Section 106 requirements of the National Historic Preservation Act would normally require a Class III (intensive) survey of the parcel to identify all cultural resources. Of those resources that are determined to be eligible for nomination to the National Register of Historic Places, specific plans would then need to be developed to lessen or eliminate impacts to those sites (e.g., avoidance, protection, or mitigation). Should any significant cultural resources be identified within the parcel during further studies, which would not necessarily imply that this area couldn't be developed. It may be possible that cultural resources can be avoided and protected during development. In other cases, mitigating measures may be proposed that would result in a determination that no adverse impacts are likely to occur, such mitigating measures may include a data recovery plan for significant sites.

The literature review and assessment of previous cultural resource surveys is intended to provide a summary of the current information that is on file with the Navajo Nation Historic Preservation Department and the Museum of New Mexico Archaeological Records Management Section. The report does not satisfy Section 106 survey requirements of the National Historic Preservation Act and is not intended to represent an intensive survey of cultural resources within the survey areas. The Navajo Nation Historic Preservation Officer would require additional survey for the parcel prior to implementing development activities. Consultation with the Navajo Historic Preservation Officer would be necessary prior to development of this parcel.

#### Recommendations

Based on the initial inspection of existing environmental data, this parcel has a medium suitability for development.

The presence of well-defined drainages through the parcel will require consultation with the U.S. Army Corp of Engineers. At a minimum, this will require a wetland delineation and jurisdictional waters determination. This adds another layer of agency involvement and added cost to the design element of this parcel.

The existence of several eligible cultural sites may be expensive to mitigate or could possibly be avoided during the design phase and should not be the single deciding factor to eliminate this site from further evaluation for suitable development.

Additional threatened and endangered species and cultural resource investigations on the parcel would be required which would add cost to the design element, as well as the need to develop a plan for any discovered cultural resources.

### **2.3 Site 3 (8.3 acres, 14.6 acres, and 12.6 acres)**

#### ***Geology/Soils***

The proposed housing site is divided into three sections that slope gently from about 6700 feet above sea level in the western side to about 6800 feet above sea level in the eastern side.



General soils (refer to soils maps in Appendix F2) in the area are classified as being mesic arid soils. More specifically, they are classified as Sheppard-Fruitland-Rock Outcrops Association. This association consists of somewhat excessively drained and well-drained soils and rock outcrops on plains and plateaus. The soils are formed in aeolian sandy material derived from sandstone and shale. Limitations for homesite development on these soils are few. The sandy texture of the Sheppard soils, however, is a severe limitation to shallow excavations (Hendricks 1985).

#### ***Surface Water/Drainage***

No wetlands or well-defined drainages were noted during the survey. Sage House Wash is located west of the housing site.

#### ***Vegetation***

The vegetation within the housing site is primarily grassland/juniper habitat type, dominated by sagebrush, juniper, snakeweed and rabbitbrush.

#### ***Wildlife***

Wildlife that occupies the study area is expected to be typical of desert grassland/woodland habitat. Although no animals were noted during a site visit, it can be expected that coyotes, foxes, rabbits, prairie dogs, lizards, snakes, small rodents, and birds of prey could be a common resident of the study area.

#### ***Environmentally Sensitive Areas***

Environmental sensitive areas can include such areas as designated habitat for threatened and endangered species, important wildlife areas or areas or corridors, riparian areas, and protected plant populations. The Navajo Natural Heritage Program maintains records of this information that is available for the Navajo Nation. A letter was sent to the Navajo Natural Heritage Program requesting data on known environmentally sensitive areas that may be affected by the proposed housing sites.

At this time no known species of concern has been recorded in the area and are part of the database kept by the Navajo Natural Heritage Program. As of May 2000, they identified the following list of species of concern that could potentially be affected by the proposed undertaking.

- Black-footed Ferret (potential habitat)
- Golden Eagle (potential foraging habitat)
- Southwestern Willow Flycatcher (no habitat present)
- Mountain Plover (potential habitat)
- Peregrine Falcon (potential foraging habitat)
- Bluehead Sucker (no habitat present)
- Western Seep Fritillary (no habitat present)

No vegetation of concern was identified.

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 does not satisfy survey requirements of the Navajo Nation or the Endangered Species Act and is not intended to represent an intensive survey of threatened or endangered species within the study area. Additional consultation with the Navajo Nation Heritage Program would be necessary prior to development because species are continually added and subtracted from their list of species of



concern, new data may become available, or new survey protocol may be established between now and the time of development.

#### **Culturally Significant Areas/Traditionally Sensitive Areas**

The Class I records search conducted for this site indicated no previous surveys and no previously recorded cultural resources.

There were not traditional cultural properties identified within the site.

If this parcel were selected for specific development activities, Section 106 requirements of the National Historic Preservation Act would normally require a Class III (intensive) survey of the parcel to identify all cultural resources. Of those resources that are determined to be eligible for nomination to the National Register of Historic Place, specific plans would then need to be developed to lessen or eliminate impacts to those sites (e.g., avoidance, protection, or mitigation). Should any significant cultural resources can be identified within the parcel during further studies, which would not necessarily imply that this area couldn't be developed. It may be possible that cultural resources can be avoided and protected during development. In other cases, mitigating measures maybe proposed that would result in a determination that no adverse impacts are likely to occur. Such mitigating measures may include a date recovery plan for significant sites.

The literature review and assessment of previous cultural resources surveys is intended to provide a summary of the current information that is on file with the Navajo Nation Historic Preservation Department and the Museum of New Mexico Archaeological Records Management Section. The report does not satisfy Section 106 survey requirements of the National Historic Preservation Act and is not intended to represent an intensive survey of cultural resources within the study areas. The Navajo Nation Historic Preservation Officer may require additional survey for the parcel prior to implementing development activities. Consultation with the Navajo Historic Preservation Officer would be necessary prior to development of this parcel.

#### ***Recommendations***

Based on the initial inspection of existing environmental data, this parcel has a medium to high suitability for development. Additional threatened and endangered species and cultural resource investigations on the parcel would be required which would add cost to the design element, as well as the need to develop a plan for any discovered cultural resources.

There is little basis to speculate on the nature and density of any cultural resources that may be present because there have been no investigations conducted within, or close to this housing site. Topographically, the area contains several low rounded ridges, similar to those in the western portion of site #2, that are likely to contain some evidence of prehistoric activity.

#### **2.4 Site 4 (49 acres):**

##### ***Geology/Soils***

The proposed housing site is relatively flat at an elevation of near 6,860 feet above sea level.

General soils (refer to soils maps in Appendix F2) in the area are classified as being mesic arid soils. More specifically, they are classified as Sheppard-Fruitland-Rock Outcrop Association. This association consists of somewhat excessively drained and well-drained soils and rock outcrops on plains and plateaus. The soils are formed in aeolian sandy material derived from sandstone and shale. Limitations for homesite development on these soils are few. The sandy

texture of the Sheppard soils, however, is a severe limitation to shall excavations (Hendricks 1985).

#### ***Surface Water/Drainage***

No wetland or well-defined drainages were noted during the survey.

#### ***Vegetation***

The study area is found within desert grassland biome and is dominated by sagebrush with a few scattered junipers, snakeweed and rabbitbrush

#### ***Wildlife***

Wildlife that occupies the study area is expected to be typical of desert grassland habitat.

Evidence of jack-rabbits, rodents, and ravens were seen during the site visit. It can be expected that other animals such as coyotes, prairie dogs, foxes, lizards, snakes, small rodents and birds of prey could also be a common resident of the study area.

#### ***Environmentally Sensitive Areas***

Environmentally sensitive areas can include such areas as designated habitat for threatened and endangered species important wildlife areas or areas or corridors, riparian areas, and protected plan populations. The Navajo Nation Heritage Program maintains records of this information that is available for the Navajo Nation. A letter was sent to the Navajo Natural Heritage Program requesting data on known environmentally sensitive areas that may be affected by the proposed housing site.

At this time no known species of concern has been recorded in the area and are part of the database kept by the Navajo Natural Heritage Program. As of May 2000, they identified the following list of species of concern that could potentially be affected by the proposed undertaking:

- Black-footed Ferret (potential habitat)
- Golden Eagle (potential foraging habitat)
- Mexican Spotted Owl (no habitat present)
- Southwestern Willow Flycatcher (no habitat present)
- Rock Mountain Elk (potential marginal habitat)
- Bluehead Sucker (no habitat present)
- Speckled Dace (no habitat present)
- Chuska Tasseled-eared Squirrel (no habitat present)
- Western Seep Fritillary (no habitat present)
- Black Bear (no habitat present)
- Peregrine Falcon (potential foraging habitat)
- Wild Turkey (no habitat present)
- Mule Deer (potential marginal habitat)
- Waterfowl (no habitat present)

No vegetation on concern were identified

The date 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 does not satisfy survey requirements of the Navajo Nation or the Endangered Species Act and is not intended to represent an intensive survey of threatened or endangered species within the study area. Additional consultation with the Navajo Nation Natural Heritage Program would be necessary prior to development because species are continually added and subtracted from their



list of species of concern, new data may become available, or new survey protocol may be established between now and the time of development.

#### **Culturally Significant Areas/Traditionally Sensitive Areas**

A class I records and literature search identified two systematic cultural surveys that have been conducted along Highway 264 right-of-way near the proposed housing site. These previous surveys are slightly north of the housing site and probably do not actually overlap with the area considered for housing. One of the previous investigations (Finney 1997) recorded a large prehistoric lithic scatter on and around the small hill to the northeast of the site. While this site has no direct effect on activities within the parcel, it could affect future related activities within the parcel, it could affect future related activities such as access road construction and utility installation.

There were no traditional culture properties identified within the site.

The literature review and assessment of previous cultural resources surveys is intended to provide a summary of the current information that is on file with the Navajo Nation Historic Preservation Department and the Museum of New Mexico Archaeological Records Management Section. The report does not satisfy Section 106 survey requirements of the National Historic Preservation Act and is not intended to represent an intensive survey of cultural resources within the study areas. The Navajo Nation Historic Preservation Officer may require additional survey for the parcel prior to implementing development activities. Consultation with the Navajo Historic Preservation Officer would be necessary prior to development of this parcel.

#### ***Recommendations***

Based on the initial inspection of existing environmental data, this parcel has a medium to high suitability for development. Additional threatened and endangered species and cultural resource investigations on the parcel would be required which would add cost to the design element, as well as the need to develop a plan for any discovered cultural resources.

### **2.5 Site 5 (15 acres)**

#### ***Geology/Soils***

The proposed housing site lies on a relatively flat area near 7,660 feet above sea level.

General soils (refer to soils maps in Appendix F2) in the area are classified as being mesic arid soils. More specifically, they are classified as Sheppard-Fruitland-Rock Outcrop Association. This association consists on somewhat excessively drained and well-drained soils and rock outcrops on plains and plateaus. The soils are formed in aeolian sandy material derived from sandstone and shale. Limitations for homesite development on those soils are few. The sandy texture of the Sheppard soils, however, is a severe limitation to shallow excavations (Hendricks 1985).

#### ***Surface Water/Drainage***

No wetlands or well-defined drainages were noted during the survey.

#### ***Vegetation***

The study area is found within ponderosa pine biome and is dominated by ponderosa pine. The understory was dominated by Gambel oak, juniper, sage, sunflower, yucca, prickly pear, snakeweed, rabbitbrush, and various grasses.

#### ***Wildlife***



Wildlife that occupies the study area is expected to be typical of ponderosa pine forest, including deer, elk, black bear, bobcat, mountain lion, fox, coyote, bats, squirrels, chipmunks, cottontails, jackrabbits, small rodents, porcupines, weasels, and raccoon to name a few. Most of these species will also utilize habitat in the pinon/juniper woodland and grassland. Birds are diverse at the higher elevations and include such species as stellar jays, pine siskins, wild turkey, eagles, vultures, ravens, falcons and a number of species of hawks and owls.

#### *Environmentally Sensitive Areas*

Environmentally sensitive areas can include such areas as designated habitat for threatened and endangered species, important wildlife areas or areas or corridors, riparian areas, and protected plant populations. The Navajo Natural Heritage Program maintains records of this information that is available for the Navajo Nation. A letter was sent to the Navajo Natural Heritage Program requesting data on known environmentally sensitive areas that may be affected by the proposed housing sites.

At this time no known species of concern has been recorded in the area and are part of the database kept by the Navajo Nation Heritage Program. As of May 2000, they identified the following list of species of concern that could potentially be affected by the proposed undertaking.

- Black-footed Ferret (potential habitat)
- Golden Eagle (potential foraging habitat)
- Mexican Spotted Owl (no habitat present)
- Southwestern Willow Flycatcher (no habitat present)
- Rock Mountain Elk (potential marginal habitat)
- Bluehead Sucker (no habitat present)
- Speckled Dace (no habitat present)
- Chuska Tasseled-eared Squirrel (no habitat present)
- Black Bear (no habitat present)
- Peregrine Falcon (potential foraging habitat)
- Wild Turkey (no habitat present)
- Mule Deer (potential marginal habitat)
- Waterfowl (no habitat present)

No vegetation of concern was identified.

The data request and assessment of species concern is intended to provide a summary of the current information that is on file with the Navajo Nation Natural Heritage Program. The report does not satisfy survey requirements of the Navajo Nation or the Endangered Species Act and is not intended to represent an intensive survey of threatened or endangered species within the study area. Additional consultation with the Navajo Nation Heritage Program would be necessary prior to development because species are continually added and subtracted from their list of species of concern, new data may become available, or new survey protocol may be established between now and the time of development.

#### *Culturally Significant Areas/Traditionally Sensitive Areas*

The Class I records search conducted for this site indicated no previous surveys and no previously recorded cultural resources.

There were no traditional cultural properties identified within the site.

The literature review and assessment of previous cultural resource surveys is intended to provide a summary of the current information that is on file with the Navajo Nation Historic Preservation Department and the Museum of New Mexico Archaeological Records Management Section. The report does not satisfy Section 106 survey requirements of the National Historic Preservation Act and is not intended to represent an intensive survey of cultural resources within the study areas. The Navajo Nation Historic Preservation Officer may require additional survey for the parcel prior to implementing development activities. Consultation with the Navajo Historic Preservation Officer would be necessary prior to development of this parcel.

### ***Recommendations***

Based on the initial inspection of existing environmental data, this parcel has a medium to low suitability for development. Additional threatened and endangered species and cultural resource investigations on the parcel would be required which would add cost to the design element, as well as the need to develop a plan for any discovered cultural resources. This site also contains potential habitat for far more species of concern than the other housing sites. A considerable amount of consultation and coordination with Departments in Window Rock would be necessary prior to approval for development of this site.

## **E. Land Use Plan**

The Land Use Plan for Kin Dah Lichii Chapter is comprised of three (3) sections:

- E1. Recommendations
- E2: Implementation
- E3: Land Use Map/Site Maps

~~This section contains a description of the recommended housing sites as shown in Exhibits 13a-13e.~~

As reported in the Community Assessment section, a 1997 estimate by Navajo Nation Community Development Department lists 359 occupied housing units in the chapter. Of the total, 48 units were constructed by NHA (29 public rental units) and 21 units are BIA school quarters. A 2000 consultant estimate finds approximately 515 occupied houses in the chapter.

The chapter's housing waiting list identifies the need for 44 new housing units. A recent feasibility study also found 161 housing units without plumbing and 265 units needing bathroom additions.

Based on existing and projected housing needs, 58 new housing units should be constructed by 2010. Ten rental units are currently funded (however, the chapter would like to build only homeowner units) and 10 owner scattered sites are planned in FY 2002.

~~The chapter has identified several housing sites for new housing. Sites have been ranked accordingly to suitability as shown in Exhibit 11:~~

- ~~Site 1: Extend the NHA housing area to the west (rank 1)~~
- ~~Site 2: Wood springs/Nazlini turn-off (rank 5)~~
- ~~Site 3: North on f the tribal park (rank 3)~~
- ~~Site 4: Southwest of Cross Canyon (rank 2)~~
- ~~Site 5: Summit Area (rank 4)~~



Housing sites 1, 4, and 3 are the highest recommended areas for housing development based on data reported in the Infrastructure Analysis and Suitability Analysis sections.

Exhibit 11: Kin Dah Lichee Site Ranking Criteria

**DELETE**

	Site Acreage	Location	Access	Utilities	Grazing
1	45	Withdrawn site, location west of the existing Navajo Housing Authority (NHA) project housing site which is adjacent to the Kin Dah Lichii Chapter house	Accessible by Navajo Route N39 (paved) serving the NHA housing; will be made accessible from the existing NHA street going east to west with minimal cost.	All utilities are available from the adjacent housing site	Already withdrawn
2	28.6	Located northwest of the chapter, near the Nazlini and Kin Dah Lichii Chapter boundary. There are three parcels identified by the land use committee	All parcels are accessible from Navajo Route 27.	A proposed 6" water line will bisect the three parcels, easily accessible. A new sanitary sewer collection and treatment system will need to be developed and located at least 1000 feet from the nearest building. A single phase line runs parallel with the gas line, easily accessible. A 4" gas line runs parallel of 58-acre parcel west boundary and can be made accessible.	
3	35.5	The site is located approximately 2 1/2 miles north of the chapter house on Fluted Rock Road.	The site can be accessible from three dirt roads: CR305-Lone Tule Road, CR423-Fluted Rock Road, and NSR 203-Black Soil Road.	Near a proposed water line but may need to be upgraded to meet fire codes. Either a new sanitary sewer collection system be developed or possible tie into the existing sewer lagoon system near the BIA housing site. Individual LP tanks will most likely be developed for housing development. single phase electrical line located 400 feet south of the site and could easily be extended to the propose site. further engineering review will be required. Telephone lines could be extended from the chapter but may be added expense.	Some opposition exists
4	49	The site is located south of Arizona Highway 264 and southeast of the chapter house	The 49-acre site can be accessible from the adjacent State Highway 264	A 6" water extension will be required from the nearby water tank. A sanitary sewer collection system and treatment system will need to be developed. A gas line extension or individual LP tanks will need to be developed. An electrical line extension will be required from a single phase line located north of the site. Further review of the capacity will be needed. Telephone services should not be an extra cost to the site since its location is adjacent to the site.	Lacks support; recommendation to change 50% area to a business site; leave the remainder as grazing land
5	15	The site is located south of Arizona Highway 264 and approximately 5 miles west of St. Michaels chapter (Summit area).	The site can be easily accessible from State Highway 264. However, special consideration for frontage road is needed because of the future plans to widen the road to four lanes.	A 6" water line will be required to be extended from St. Michaels. A sanitary sewer collection system and treatment system will need to be developed. Individual LP tanks will need to be installed for all housing units. An electrical extension from across the road (State Route 264) will be required with further review. Telephone extension will be required without extra cost.	

## E 2: Implementation

A number of planning policies have been identified to implement the land use plan. They are described in this sub-section. References to future land use are shown in Exhibit 12 and in the enclosed large-scale map in the pocket of this report.

- Policy 1.** Preserve the scenic landscape, forested areas, and “open spaces” of the chapter.
- 1a. Identify sites for potential development that have the least impact on the landscape
  - 1b. Prohibit development on steep slopes, or in floodplains or in areas of poor soils, or natural and cultural significance.
  - 1c. Limit the height of all structures, including signs.
  - 1d. Designate protected areas where development is restricted:
    - Navajo Tribal Forest
    - Anasazi archeological areas
    - Fluted Rock
- Policy 2.** Develop housing projects appropriate to the community’s needs.
- 2a. ~~Encourage clustered housing development (not necessarily subdivision)~~
  - 2b. Scattered housing sites should be located in areas near existing/planned infrastructure
  - 2c. Streamline homesite approval process
  - 2d. Promote the use of alternative technologies:
    - solar
    - windmills
    - cisterns and water collection
    - constructed wetlands
  - 2e. Work with NHA to provide a safe environment for current existing housing areas. ~~develop design guidelines for new housing areas:~~
    - rural standards for streets
    - plant trees
    - stagger placement of housing
    - ~~lots large enough to accommodate compound housing, corrals, and Hogan’s~~
    - underground utilities
    - solar orientation
    - local building materials
  - 2f. Work with funding agencies to renovate and repair existing housing.
- Policy 3.** Promote housing programs that can mane affordable housing within the reach of all community members.



3a. Promote housing programs that can make affordable housing within the reach of all community members.

- HUD's Office of Native American Programs (ONAP)
- Native American Housing Self-Determination Act (NAHASDA)
- Title VI Indian Tribal Housing Activities Loan Guarantee Program provides loan guarantees for block grant recipients who need additional housing funds but are unable to borrow from other sources
- Indian Housing Block Grant – combines all Housing and Urban Development (HUD) funds for Native
- Section 184 Program – for Native Americans who want to buy, built or rehabilitate a home in an Indian Area and need mortgage financing
- Indian Community Development Block Grant (CDBG) – low/moderate income funding for housing rehabilitation, new construction, purchase of land, and community facilities

Other funding sources include:

- US Department of Agriculture (USDA) Rural Housing Services (RHS)
- Low interest, low down payment loans for new housing, housing rehabilitation, subsidized rental housing
- Bureau of Indian Affairs (BIA) housing Improvement Program (HIP) – housing rehabilitation
- US Department of Veterans Affairs – low interest, low down payment
- Fannie Mae – conventional loans, Native American loans
- Indian Health Services (IHS) – bathroom additions, plumbing
- Internal Revenue Service (IRS) – Low Income Housing Tax Credit (LIHTC) program – subsidizes capital investment in newly constructed or rehabilitation rental housing. Can be used to leverage NAHASDA funds
- Federal Home Loan Bank (FHLB) – Affordable Housing Program (AHP) – provides subsidies or low interest loans to a housing developer; can leverage costs of construction, rehabilitation, and/or pay down payments, closing costs, etc.

**Policy 4.** Create opportunities for starting local businesses

4a Work with the Small Business Administration/Regional Business Development Office (RBDO) to:

- Provide a chapter sub-office
- Streamline business development process
- Technical support for obtaining clearances, withdrawals

- Provide entrepreneurial training
  - Assist in preparation of business plans
  - Direct individuals to financing/business loan programs
  - Obtain funding for market feasibility studies from the Nation's Economic Development Division
- 4b. Work with the Economic Development Department to streamline the business site lease process. As described in the Overall Economic Development (OEDP), provides for:
- Uniform site leases forms
  - Delegation of lease approval authority to the Economic Development Department and eventually to chapters
  - Revisions to the Business Site Leasing Act to allow for:
    - master leasing
    - revenue sharing with chapters
    - compensation to grazing permittees
  - In addition, methods for:
    - partnering with nearby chapters
    - establishing cooperatives to market goods, provide shared spaces to sell and store merchandise
- 4c. Various small business programs are available including:
- Federal Omnibus Package of 1993 – allows faster depreciation of machinery and equipment on reservations; 20% tax cred on wages and benefits to Indian employees
  - The BIA Loan Guaranty Program (Indian Financing Act of 1974) for lenders. Up to 500,000 for businesses
  - Northern Arizona University (NAU) Center for American Indian Economic Development – provides technical assistance
  - Arizona Enterprise Zones programs – tax credits
  - Business and Industrial Development Fund (BIDF) – Navajo Nation revolving loan fund provides low interest loans of \$10,000 to \$150,000
  - Micro-Enterprise Lending Program (MELP) – Navajo Nation micro loan program

**Policy 5.** Identify locations for business

- 5a. Business should be located in nodes at highway intersections
- 5b. Areas / shared facilities should be set aside for vendors to sell farm products, arts and crafts, etc.
- 5c. Businesses catering to tourism
- 5d. Businesses providing basic goods/services
- 5e. Identify expired business leases to be re-issued to new leases/tenants

**Policy 6.** Identify locations for community facilities



- 6a. Land should be set aside for community uses such as parks, preschools, community centers, etc. in all subdivisions
- 6b. Co-locate community facilities
- 6c. Technical assistance/grant writing training for chapters
- 6d. Funding sources for community facilities include:
  - Indian CDBG
  - New Mexico Community Foundation
  - McCune Charitable Trust
  - Ford Foundation
  - Revenue Bonds – now used by Kayenta Township will become available to chapters under the LGA
  - Debt is repaid with sales taxes or lease fees

**Policy 7.** Land Use Plans should serve as a guide to decision makers when approving new development in the chapter

- 7a. Adopt a permit approval process (rather than traditional zoning)
  - Permit application / development plan is submitted to Land Use Committee (or chapter planner if position exists)
  - Land Use Committee reviews development plans / issues or denies permit
  - Land Use Committee follows the land use plan and development guidelines in making the decision
  - Land Use Committee may recommend to amend the land use plan, if appropriate
  - Amendments to the land use plan requires a public hearing (some more intensive uses, i.e., mine, industry, may also require a public hearing)
  - Chapter Officials act as an appeals board
  - If site is not withdrawn, all clearances must be given by appropriate authorities

**Policy 8.** Work to withdraw chapter tracts prior to the proposal of new projects

- 8a. The chapter should withdraw large enough tracts of land as to meet the development needs of the community for the next 20 years
- 8b. Chapter tracts should identify land for a variety of uses: residential, commercial and community uses
- 8c. Clearances, leases, etc. should be approved for the entire tract rather than piecemeal. The chapter may be designated lessor in order to receive subsequent lease fee

**Policy 9.** Preserve traditional farming and grazing land uses in the chapter

- 9a. Provide conflict resolution with grazing permittees for proposed development
- 9b. Implement grazing fees as authorized by proposed Uniform Grazing Act
- 9c. Work with the Navajo Nation to develop a grazing income compensation fund
- 9d. Provide land exchanges when possible
- 9e. Work with Natural Resources Conservation District and Navajo Nation Department of Agriculture on improving grazing management
- 9f. Development should not be located near check dams

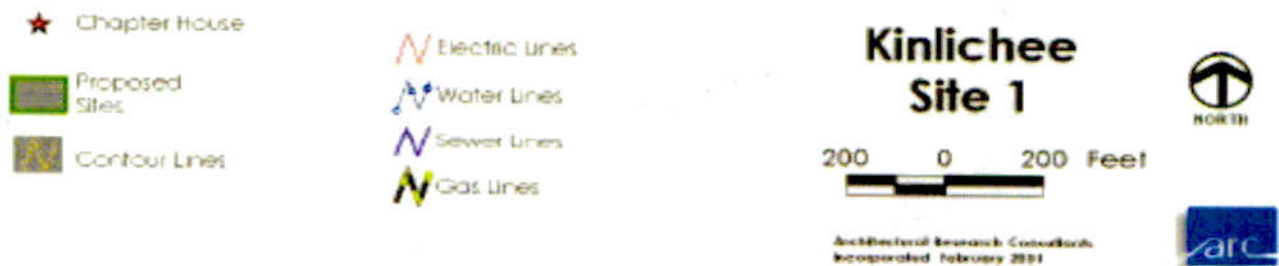
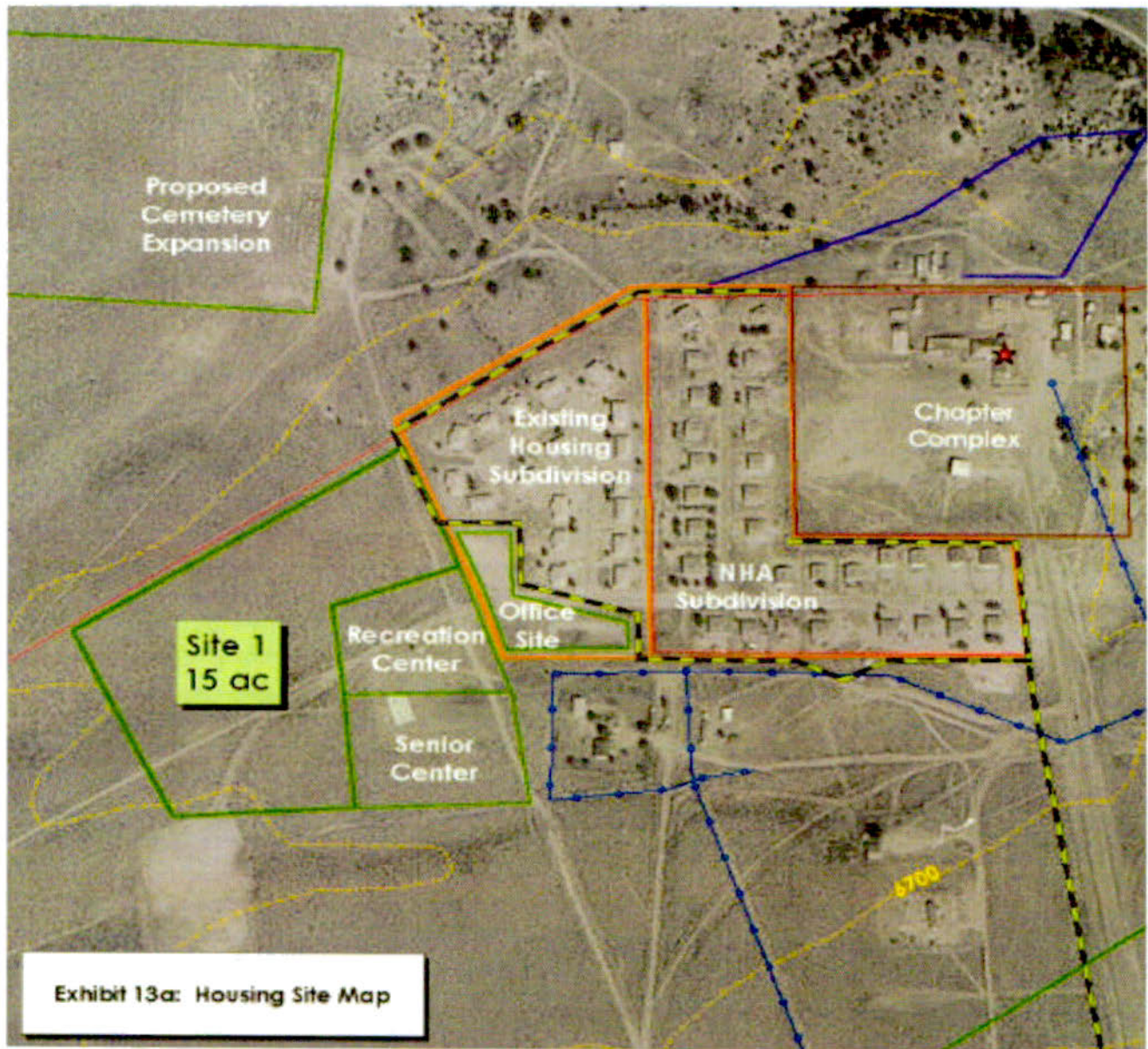
**Policy 10.** Chapter will define their boundaries and consolidate lands

- 10a. Meet with surrounding chapters on boundary disputes
- 10b. Survey boundaries and obtain legal descriptions



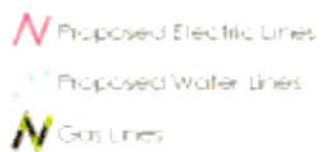
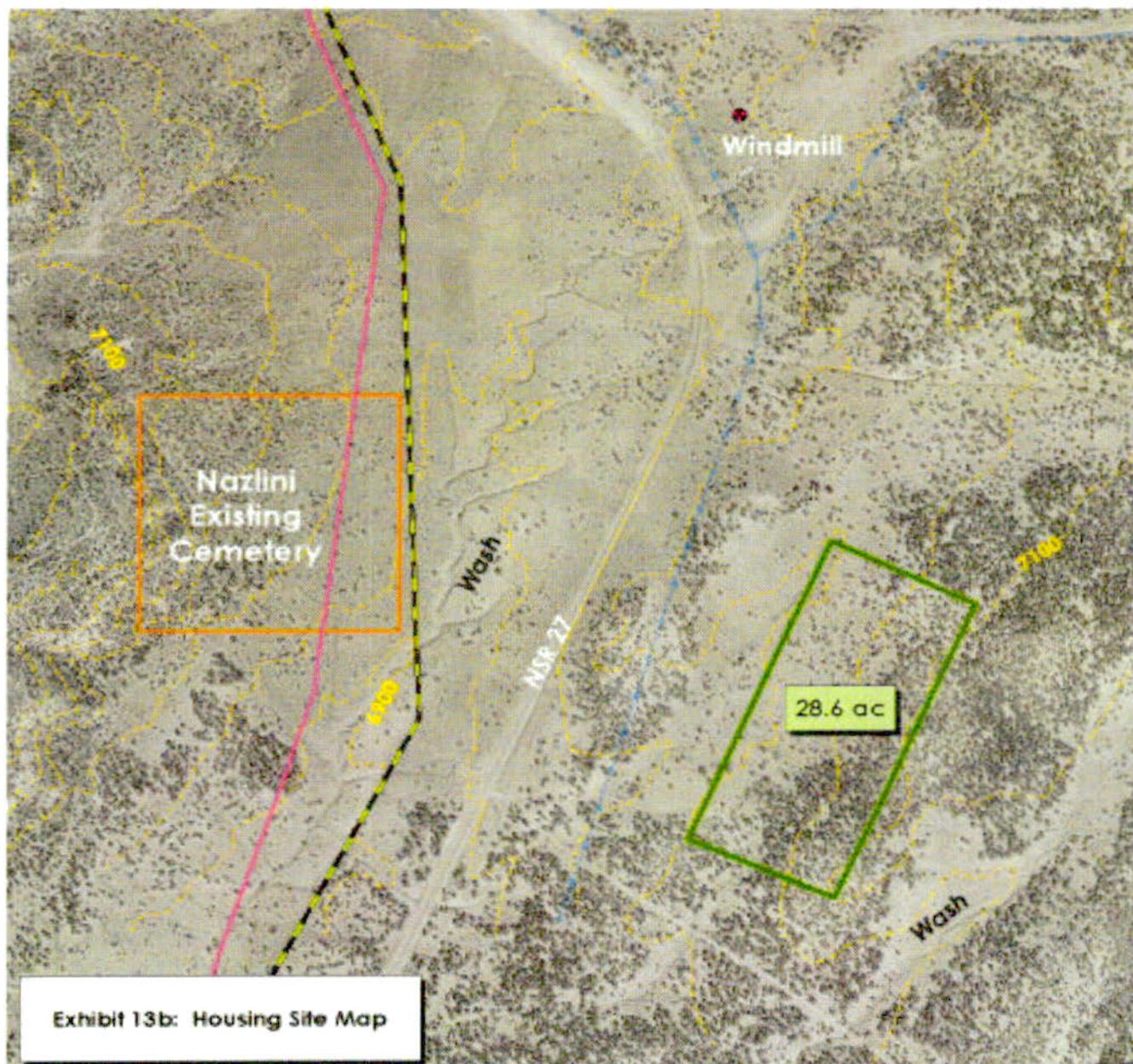






- Chapter passed a Resolution to include a Senior Citizen Center on the Number 1 premises at the cost of NHA. However, NHA did not acknowledge the agreement of the Chapter Resolution.





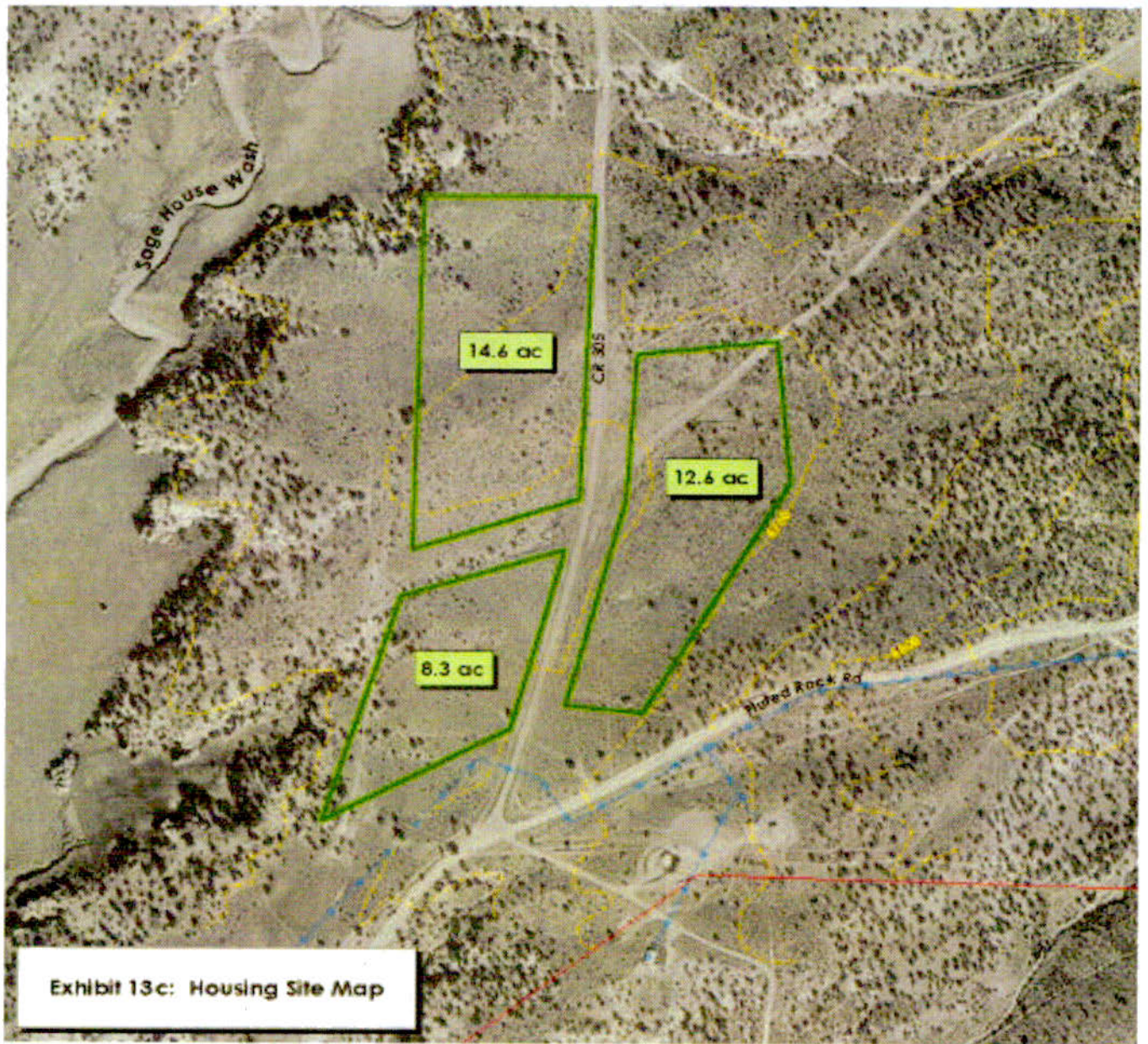
## Kinlichee Site 2

300 0 300 Feet

Architectural Research Consultants  
Inc. prepared February 2001







 Proposed Sites  
 Contour Lines

 Electric Lines  
 Proposed Water Lines

## Kinlichee Site 3

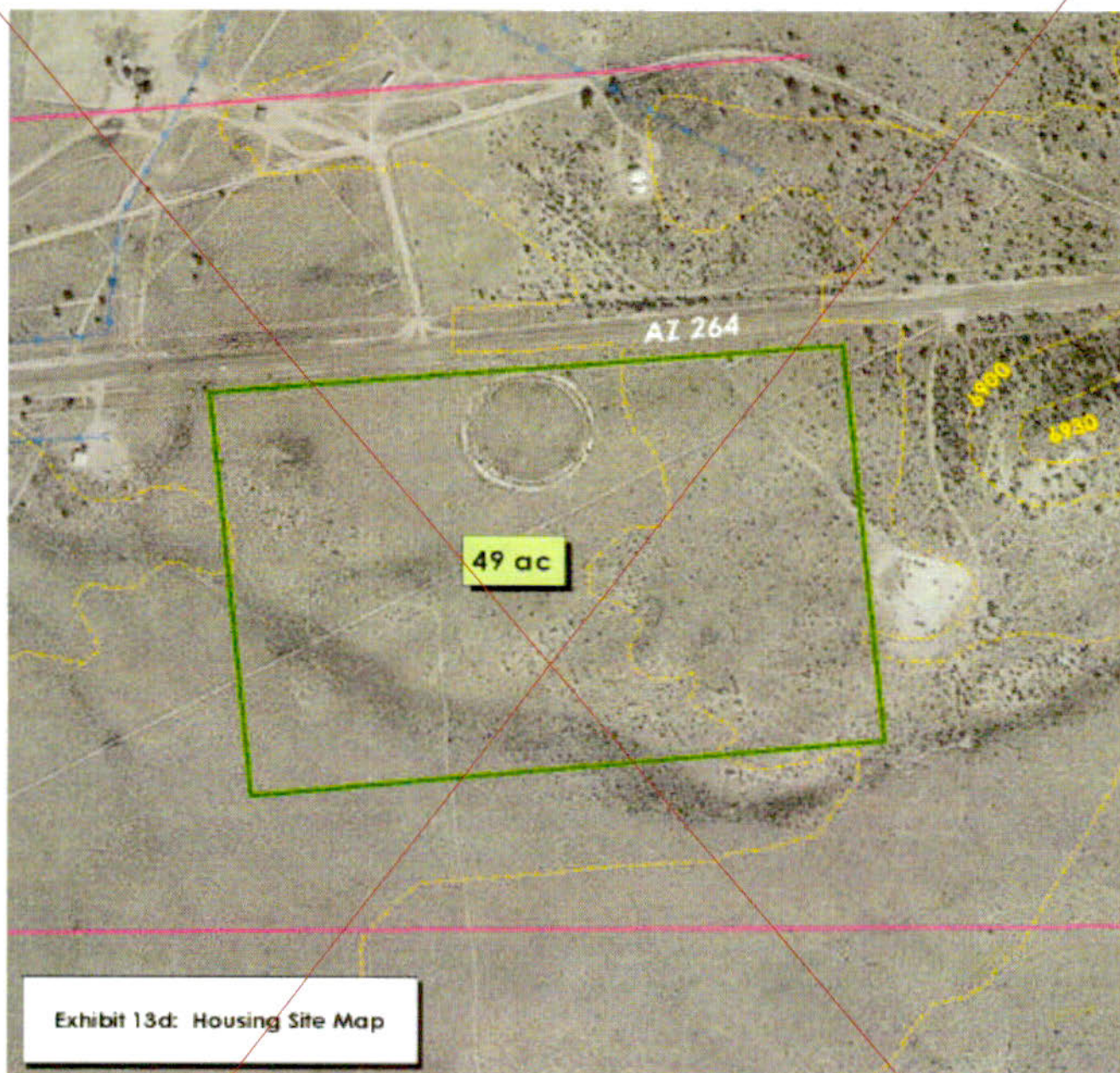
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Incorporated February 2001







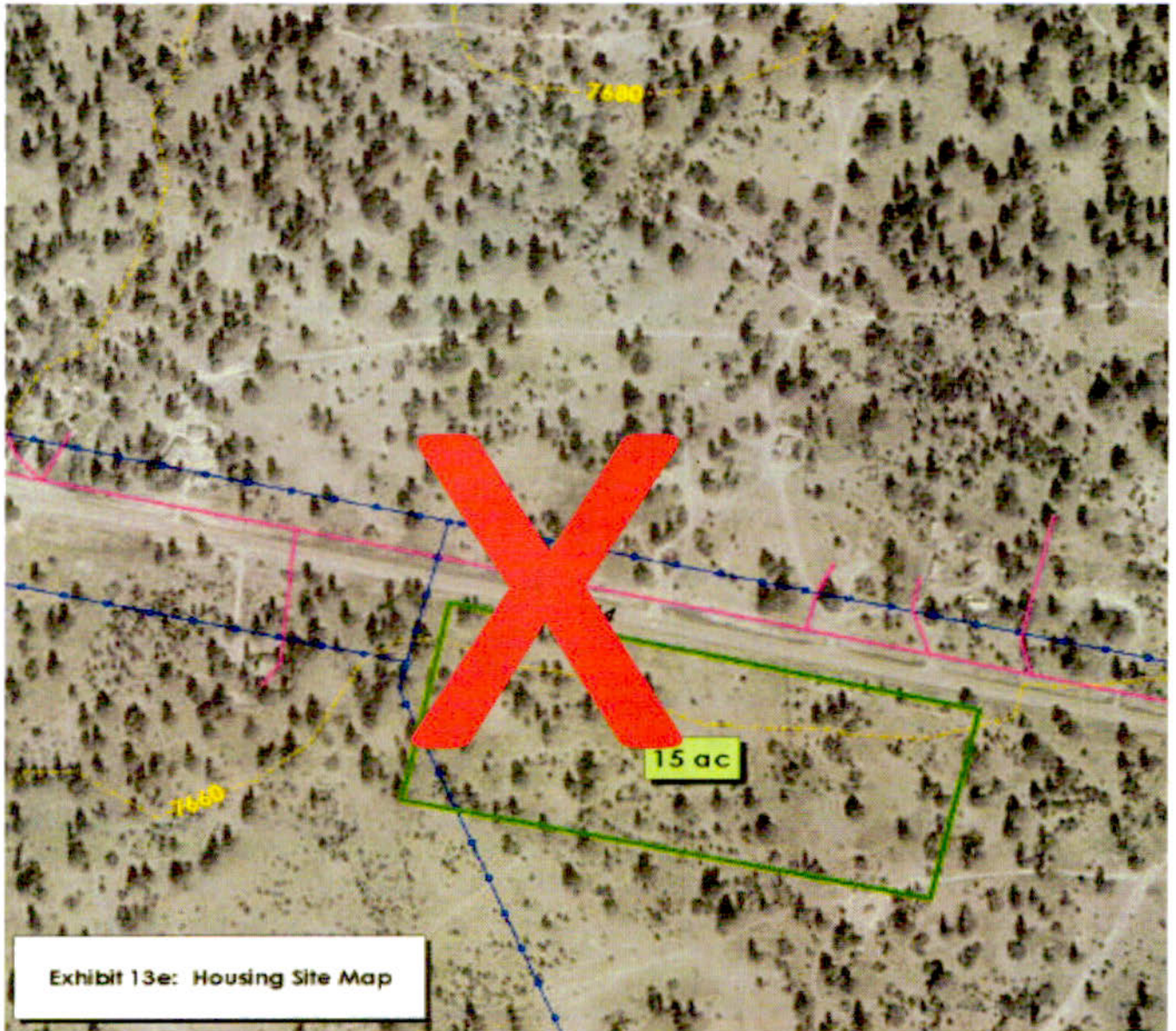
## Kinlichee Site 4

200 0 200 Feet

Architectural Research Consultants  
Incorporated January 2001







-  Proposed Sites
-  Contour Lines

-  Proposed Electric Lines
-  Water Lines

## Kinlichee Site 5



200 0 200 Feet



Architectural Research Consultants  
Incorporated January 2001





## **F. Appendices**

Appendix F1 – Planning Definitions, Acronyms. And Abbreviations

Appendix F2 - Soils Maps

Appendix F3 -- Public Participation

### **Appendix F1 – Planning Definitions, Acronyms and Abbreviations**

#### **Planning Definitions**

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

**CLUP Committee:** Comprehensive Land Use Planning Committee, [KCRDC \(Kin Dah Lichii Community Resource Development Committee\)](#)

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

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

**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 status.

**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. 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.

**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 the 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-Fiscal, 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.

**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.

**Traditional Cultural Properties:** sites sacred to the chapter community.

**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 – Migration, 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 – U.S. Department of Agriculture

Amendment: This Land Use Planning Manual will be amended/updated every five years by the Kin Dah Lichii Community Resource Development Committee (KCDRC), Administrative Staff, and elected Chapter Officials with the final approval by the Community members at a duly called Chapter Meeting.



ACKNOWLEDGEMENT:

\_\_\_\_\_  
Larry Curtis, Chapter President

\_\_\_\_\_  
Brunella Yazzie, Chapter Vice-President

\_\_\_\_\_  
Mike Tsosie, Chapter Secretary/Treasurer

\_\_\_\_\_  
Terry Kelewood, KCDRC President

\_\_\_\_\_  
Kerrie Begaye, Chapter Manager

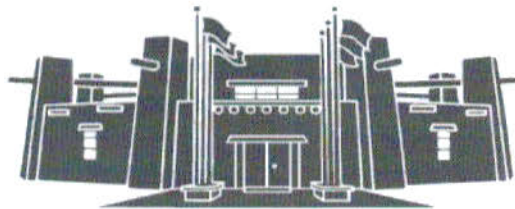
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Theresa Watchman, Administrative Assistant

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Lavina Curley, KCDRC Secretary

\_\_\_\_\_  
Gilbert Belinti, KCDRC Vice President

\_\_\_\_\_  
Harrison Williams, KCDRC Member

\_\_\_\_\_  
Jimmie Wilson, KCDRC Member



## MEMORANDUM

TO: Honorable Vince R. James  
Jeddito, Cornfields, Ganado, Kinlichee, Steamboat Chapters

FROM: Mariana Kahn  
Mariana Kahn, Attorney  
Office of Legislative Counsel

DATE: January 30, 2020

SUBJECT: PROPOSED STANDING COMMITTEE RESOLUTION, AN ACTION RELATING TO RESOURCES AND DEVELOPMENT COMMITTEE, CERTIFYING KIN DAH LICHII' CHAPTER GOVERNANCE COMMUNITY-BASED LAND USE PLAN WHICH HAS REEVALUATED AND READJUSTED KIN DAH LICHII' CHAPTER'S PREVIOUS COMMUNITY-BASED LAND USE PLAN

I have prepared the above-referenced proposed resolution and associated legislative summary sheet pursuant to your request for legislative drafting. Based on existing law and review of documents submitted, the resolution as drafted is legally sufficient. As with any action of government however, it can be subject to review by the courts in the event of proper challenge. Please ensure that his particular resolution request is precisely what you want. You are encouraged to review the proposed resolution to ensure that it is drafted to your satisfaction.

The Office of Legislative Counsel confirms the appropriate standing committee(s) based on the standing committees powers outlined in 2 N.N.C. §§301, 401, 501, 601 and 701. Nevertheless, "the Speaker of the Navajo Nation Council shall introduce [the proposed resolution] into the legislative process by assigning it to the respective oversight committee(s) of the Navajo Nation Council having authority over the matters for proper consideration." 2 N.N.C. §164(A)(5).

If the proposed resolution is unacceptable to you, please contact me at the Office of Legislative Counsel and advise me of the changes you would like made to the proposed resolution.



THE NAVAJO NATION  
LEGISLATIVE BRANCH  
INTERNET PUBLIC REVIEW PUBLICATION



LEGISLATION NO: \_0025-20\_\_

SPONSOR: Vince R. James

**TITLE: An Action Relating To Resources and Development Committee, Certifying Kin Dah Lichi' Chapter Governance Community-Based Land Use Plan Which Has Reevaluated and Readjusted Kin Dah Lichi' Chapter's Previous Community-Based Land Use Plan**

*Date posted:* January 31, 2020 at 5:35 PM

Digital comments may be e-mailed to [comments@navajo-nsn.gov](mailto:comments@navajo-nsn.gov)

Written comments may be mailed to:

Executive Director  
Office of Legislative Services  
P.O. Box 3390  
Window Rock, AZ 86515  
(928) 871-7586

Comments may be made in the form of chapter resolutions, letters, position papers, etc. Please include your name, position title, address for written comments; a valid e-mail address is required. Anonymous comments will not be included in the Legislation packet.

**Please note:** This digital copy is being provided for the benefit of the Navajo Nation chapters and public use. Any political use is prohibited. All written comments received become the property of the Navajo Nation and will be forwarded to the assigned Navajo Nation Council standing committee(s) and/or the Navajo Nation Council for review. Any tampering with public records are punishable by Navajo Nation law pursuant to 17 N.N.C. §374 *et. seq.*

THE NAVAJO NATION  
LEGISLATIVE BRANCH  
INTERNET PUBLIC REVIEW SUMMARY

LEGISLATION NO.: 0025-20

SPONSOR: Honorable Vince R. James

TITLE: An Action Relating to Resources and Development Committee, certifying Kin Dah Lichi' Chapter Governance Community-Based Land Use Plan which has Reevaluated and Readjusted Kin Dah Lichi' Chapter's previous Community-Based Land Use Plan

Posted: January 31, 2020 at 5:35 PM

5 DAY Comment Period Ended: February 05, 2020

Digital Comments received:

Comments Supporting	<i>None</i>
Comments Opposing	<i>None</i>
Inconclusive Comments	<i>None</i>

  
\_\_\_\_\_  
Legislative Tracking Secretary  
Office of Legislative Services

02/06/2020 8:27am

Date/Time