

# NAVAJO NATION REINVENTED

Economic Impacts & Strategies for  
Areas Affected by Coal Mine Closure



# **Navajo Nation Economic Development Strategies for Areas Affected by Coal Mine Closure**

Prepared for

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## **Executive Summary**

Global transformations in the energy market and federal energy policy have resulted in a decline in the demand for coal and coal-burning energy. On the Navajo Nation, coal mines and their associated coal burning power stations have closed, downsized, or are pending closure. The Navajo Nation Division of Economic Development (NNDED), Department of Project Development, received a grant from the U.S. Economic Development Administration to develop the economic strategies to help coal-dependent communities adapt to evolving energy markets.

The goals and strategies presented in this report are designed to mitigate economic impacts associated with changing energy markets by taking advantage of emerging industry sectors and opportunities for the Navajo Nation government, Navajo chapters, business owners, and entrepreneurs. Examples of emerging industries and opportunities include new agricultural markets, growth of tourism, information technology, water infrastructure improvement projects that will support economic development, abandoned uranium mine clean-up project, Navajo Generating Station clean up, and workforce development programs.

Eight broad goals are presented in Chapter 6, along with strategies to achieve the goals. They build upon an analysis of the regional economy, a thorough review of previous Navajo economic development strategies, a strength-weakness-opportunity-threat analysis, additional research on various strategies, and input from stakeholders. Each goal has objectives and strategies (or action steps) for achieving the goals. The broad goals are:

1. Enhance Tourism
2. Expand Agriculture/Modern Water Use
3. Expand Utility Infrastructure
4. Enhance Information Technology
5. Enhance Navajo Nation Government-Industry Collaboration
6. Enhance Hospitality
7. Enhance Livestyle Amenities
8. Redevelopment of the Workforce

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# 1 INTRODUCTION

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## 1.1 OVERVIEW

Global transformations in the energy market and federal energy policy have resulted in a decline in the demand for coal and coal-burning energy. Coal production in the U.S. has decreased from 1,100 million tons in 2011 to 700 million tons in 2016 (EIA 2017). On the Navajo Nation, coal mines and their associated coal burning power stations have closed, downsized, or are pending closure. The Navajo Nation Division of Economic Development (NNDED), Department of Project Development, received a grant from the U.S. Economic Development Administration to develop the economic strategies presented in this report, which will help coal-dependent communities adapt to evolving energy markets.

The history of mine closure includes Black Mesa Mine and McKinley, which closed in 2005 and 2009 respectively. Reduced coal and energy production occurred at Four Corners Power Plant (FCPP). In 2014, it reduced its energy production to comply with air quality regulations, and subsequently Navajo Mine reduced its production of coal. In December 2017, it was verified that the Kayenta Mine and Navajo Generating Station (NGS) will close in December 2019 due to “changing economics in the power industry” (Frazier, 2017). Determining the level of economic impact can help to identify the economic dislocation in the affected areas and informs the level and type of response required to mitigate these impacts (Highlands 2017).

Many economic impact analyses have been conducted regarding the changing economics in the region. An economic impact analysis is a study that identifies the full economic impact (i.e., direct, indirect, and induced impacts) of an economic activity on jobs and incomes in a defined economy. Operations at companies such as NGS and Kayenta Mine directly affect an economy through the jobs provided to company workers. Indirect effects arise when a company makes purchases from suppliers to support its operation. Induced impacts occur when workers, either directly or indirectly associated with the operations, spend their incomes in the local economy; when suppliers place upstream demands on other producers; when governments spend taxes (Evans, James, Gamez, and Madly 2013); and when the Navajo Nation spends its lease fees and royalties.

The strategies presented in this report are designed to mitigate economic impacts associated with closing or downsizing Navajo coal mines and power plants by taking advantage of opportunities for business development in the study area. The strategies focus on emerging industry sectors and opportunities for the Navajo Nation government, Navajo chapters, business owners, and entrepreneurs to promote economic development.

These economic development strategies were developed with input from the stakeholders that have been identified as the Navajo Nation government, Navajo chapters, business owners, and entrepreneurs. These groups have the best opportunity to implement the strategies. Stakeholder engagement involved public meetings, focus groups, social media, public service announcements, and newspaper articles.

## 1.2 GEOGRAPHIC SCOPE

The geographic scope of this study includes 21 Navajo chapters that surround Navajo Mine/FCCP in Northwest New Mexico, and 24 Navajo chapters that surround Kayenta Mine and NGS. A sizable portion of the workers come from these communities. **Figure 1** illustrates the chapters within a 50-mile radius of each facility, which represents the geographic study area for this report.

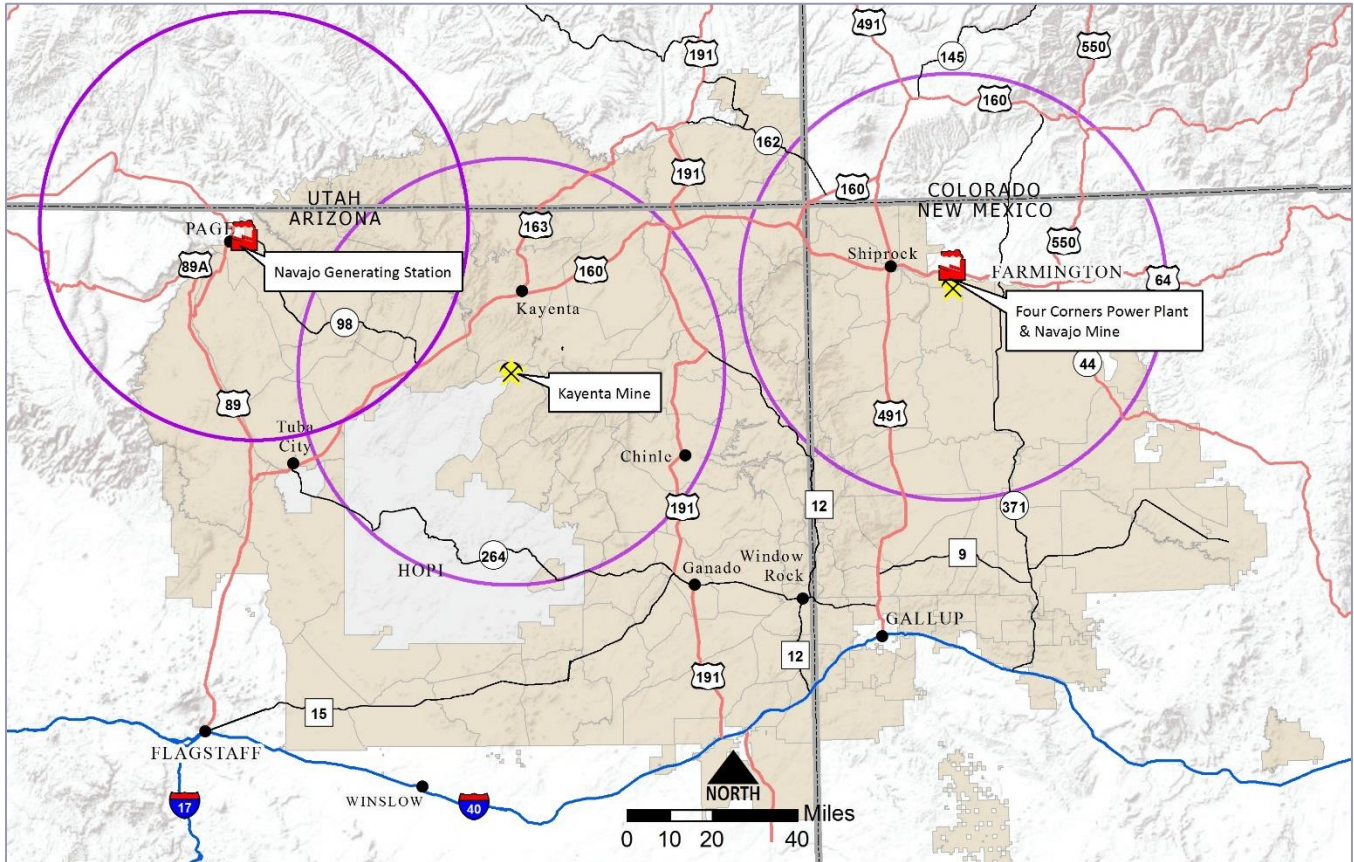


Figure 1. Map showing study area.

## 1.3 STRATEGIC PLANNING PROCESS

The economic strategies presented in this report involved the general process below:

1. Analyze the regional economy to serve as a guide for establishing regional goals and objectives. Conduct a review of recent economic impact studies to determine the magnitude of adverse impacts and inform the level and type of response required to mitigate these impacts.
2. Conduct a thorough review of previous comprehensive economic development strategies (CEDs). Over ten (10) CEDs covering Navajo Nation or parts of it, were reviewed, summarized, and discussed as to whether they can be applied to the study area.
3. Conduct a SWOT analysis. A strengths, weaknesses, opportunities, and threats (SWOT) analysis was conducted to ensure that there is a clear objective informed by a comprehensive understanding of the region's capabilities and capacity.
4. Conduct further research on various strategies. Further research was conducted on eight (8) strategic goal areas.

5. Involvement stakeholders. A broad-based and diverse public and private sector participation plan was implemented. It included public meetings, business survey, two focus groups, and news releases.
6. Prepare report. A report was prepared with all background information that concludes with goals, objectives, and strategies aimed at solving the economic development problems.

## **1.4 STAKEHOLDER ENGAGEMENT**

Stakeholder engagement is the process used by an organization to engage relevant stakeholders for a purpose to achieve accepted outcomes. The stakeholder engagement effort for this report included several methods of presenting ideas and obtaining input, such as public meetings, surveys, and social media outreach.

Following the project kick-off, ETD sponsored a booth at the *2017 Navajo Nation Economic Summit* which presented information regarding this project. A website was subsequently developed for the project, along with a social media account that was established on Facebook providing updates and a way to engage the public. Through Facebook, and utilizing a list of emails from the Navajo Nation Business Source list, an online business survey was conducted to determine the needs, challenges, and recommendations for enhancing economic development on the Nation. In addition, public meetings were held at Coconino Community College (CCC) and San Juan College (SJC) on December 11 and 12, 2017 (respectively).

**Appendix A** presents the public outreach materials; **Appendix B** presents the Business Community survey results; and **Appendix C** presents the public meeting presentation and notes taken during the public meetings.

## 2 DEMOGRAPHICS

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This section describes the geography, political structure, population, housing, infrastructure, and workforce development in the study area.

### 2.1 GEOGRAPHY

The Navajo Nation is comprised of a land base of about 27,000 square miles located in the south-central part of the Colorado Plateau physiographic province. It is bordered by the Colorado River, San Juan Rivers, the Puerco River, and the Little Colorado River with several satellite reservations located east and southeast of the main land. The Navajo Nation extends into eight counties in Arizona, New Mexico, and Utah, and is known for its expansive and diverse landscape.

This region is made up of beautiful canyon lands with many natural features such as the Grand Canyon, Marble Canyon, Antelope Canyon, and Monument Valley. Millions of visitors come to visit these places from all over the world in order to see these natural wonders. Kayenta Mine and NGS operations lie in the northwest region of the Navajo Nation, and are its largest industries.

The Navajo Mine and FCPP are in the northeast portion of the Navajo Nation, which includes the Carrizo Mountains, Shiprock, and the San Juan River valley. This region is part of the San Juan Basin, an area rich in oil and gas. The largest industries on the Navajo side of the San Juan River are Navajo Agricultural Products Industry (NAPI) and Navajo Nation Gaming Enterprise (NNGE). NNGE operates the Northern Edge Casino and Flowing Water Casino in this area.



*Figure 2. Photo of Lower Antelope Canyon*

### 2.2 POLITICAL STRUCTURE

The Navajo Nation is a three-branch government, like the U.S. Government. The Executive Branch is headed by the President and the Vice-President. They are elected by popular vote for a term of four years. The Judicial Branch is headed by the Chief Justice who is appointed by the President and then confirmed by the Navajo Nation Council. The Legislative Branch is comprised of the Navajo Nation Council with a Speaker, elected by the Council members. The Navajo Nation government runs on a budget that is approved by the Council. In 2018, the Council approved a \$636 million budget.

Under the Navajo Nation government are 110 political subdivisions called Chapters. The term "Chapter" has roots as early as the 1930s, when the Bureau of Indian Affairs (BIA) attempted to establish "Chapters of a Livestock Association" for each grazing unit across the Navajo Nation (Linford 2000). Each chapter is run by elected officers, consisting of a President, Vice President, and Secretary/Treasurer. Navajo chapters are subject to Navajo Nation laws, regulations, rules, and policies. The Navajo Nation Local Governance Act (LGA), Title 26 of the Navajo Nation Code, gives delegation of legal authority to the Navajo Chapter to manage the land within its boundaries.



## 2.3 POPULATION

This section describes population and trends on the Navajo Nation and the study area, including chapters surrounding NGS, Kayenta Mine, FCPP, and Navajo Mine.

### 2.3.1 Navajo Nation

The 2010 census reveals the Navajo Nation population on the reservation was 173,667, a decline of 6,795 residents from the previous decade.

The population decline revealed in the last census represented a -3.8 percent change.

**Figure 2** shows the population trends of the Navajo Nation population from 1980 to 2010. Prior to 2000, the population grew rapidly, but changing times and lack of opportunities on the Navajo Nation has reversed this trend.

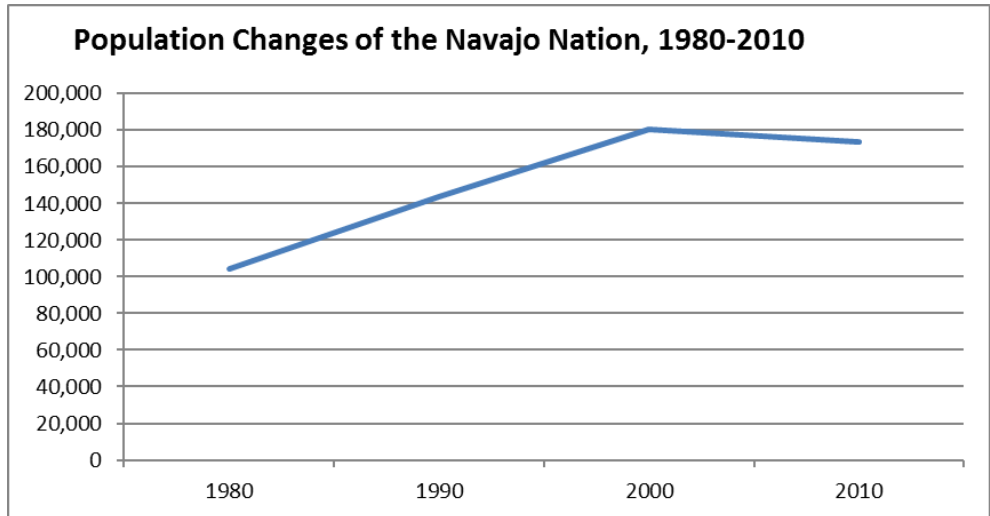


Figure 3. Population changes on Navajo Nation (data from 2010 census).

### 2.3.2 Communities Surrounding NGS and Kayenta Mine

NGS and Kayenta Mine operations are situated approximately 80 miles apart by road in the northeast region of the Navajo Nation. **Figure 4** shows a 50-mile radius around NGS and Kayenta Mine where most of the workers come from. These circles encompass 24 chapters.

**Table 1** presents the population changes during the last decade for these chapters. The data reveals, from 2000 to 2010, seven out of 24 (or about 30%) Navajo chapters experienced population increases. Round Rock Chapter

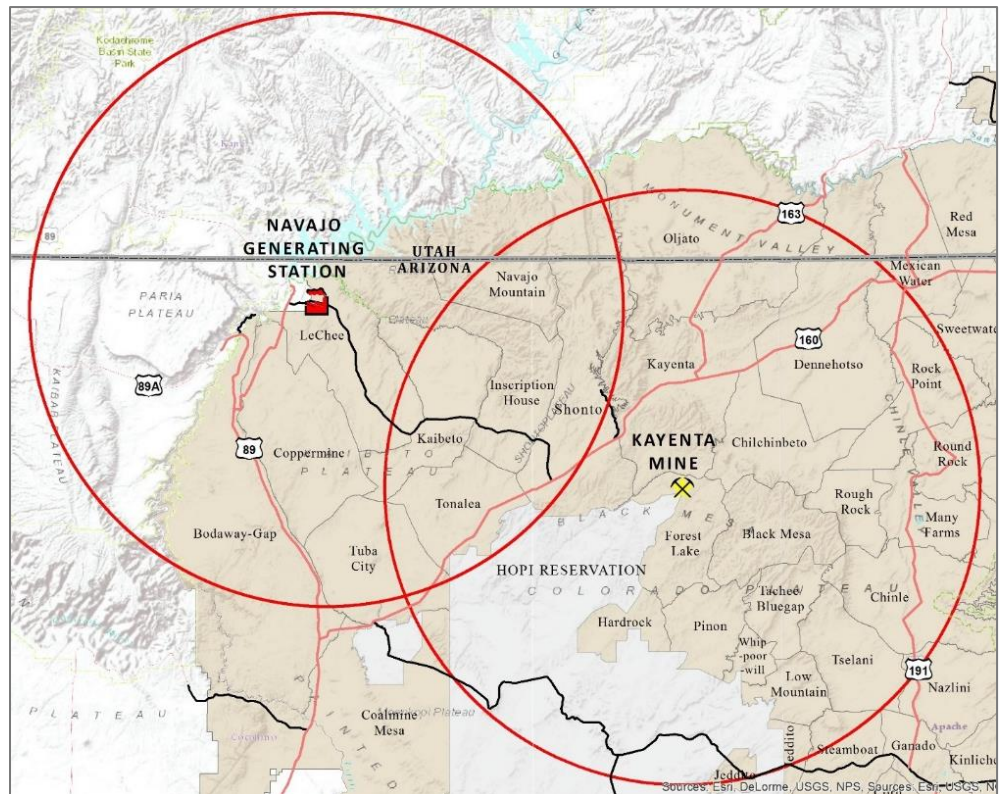


Figure 4. Navajo Communities surrounding NGS/Kayenta Mine



had the highest increase in population at 21.2%, followed by Black Mesa Chapter at 10.0%, and Tuba City Chapter at 6.1%.

Seventeen of the 24 chapters (about 70%) experienced a decrease in population. Coppermine had the highest total percent decrease in population at -19.0%, followed by Tachee/Blue Gap at -8.4%, and Low Mountain at -18.3%.

Factors contributing to the population decline include out-migration following the closure of the former Black Mesa Mine and Black Mesa coal slurry operation in 2005, and the closure of the McKinley Mine in 2009 (BOR, 2016).

**Table 1. Population Changes in Navajo Chapters Surrounding Kayenta Mine and NGS from 2000 to 2010**

Chapter	2000	2010	Change 2000-2010	Total Percent Change
Black Mesa	398	428	39	10.0%
Chilchinbeto	1,325	1,165	(160)	-12.1%
Chinle	8,756	8,005	(751)	-8.6%
Coppermine	673	545	(128)	-19.0%
Dennehotso	1,626	1,462	(164)	-10.1%
Forest Lake	573	471	(102)	-17.8%
Hard Rock	1,256	1,161	(95)	-7.6%
Inscription House	1,214	1,252	38	3.1%
Jeddito	1,299	1,180	(119)	-9.2%
Kaibeto	1,970	1,963	(7)	-0.4%
Kayenta	6,315	6,211	(104)	-1.6%
LeChee	1,890	1,589	(301)	-15.9%
Low Mountain	923	754	(169)	-18.3%
Many Farms	2,773	2,738	(35)	-1.3%
Oljato	2,292	2,214	(78)	-3.4%
Pinon	3,066	2,751	(315)	-10.3%
Rock Point	1,367	1,273	(94)	-6.9%
Round Rock	1,292	1,566	274	21.2%
Shonto	2,419	2,124	(295)	-12.2%
Tachee/Blue Gap	1,443	1,178	(265)	-18.4%
Tonalea	2,537	2,595	58	2.3%
Tselani	1,351	1,425	74	5.5%
Tuba City	8,736	9,265	529	6.1%
Whippoorwill	1,457	1,489	32	2.2%
<b>Total</b>	<b>56,961</b>	<b>54,804</b>	<b>(2,157)</b>	<b>-3.8%</b>

### 2.3.3 Communities Surrounding FCPP and Navajo Mine

FCPP and Navajo Mine are located adjacent to one another. Most of the workers live within a 50-mile radius around these facilities. **Figure 5** shows the chapters that fall within the 50-mile radius of FCPP and Navajo Mine. **Table 2** presents the population changes from 2000 to 2010 for these chapters.

The numbers reveal that, ten of the 21 chapters experienced population increases. White Rock Chapter experienced the largest increase in population at 26.7%, followed by Newcomb Chapter at 3.6%, and Burnham Chapter at 16%. Eleven of the 21 chapters experienced a decrease in population. Lake Valley Chapter had the highest total percent change at -30.8%, followed by Cove Chapter at -14.9%, and Hogback Chapter at -2.3%. On a regional level, there was a population decline in McKinley County, San Juan County, and Farmington, New Mexico during the same time (OSMRE, 2015).

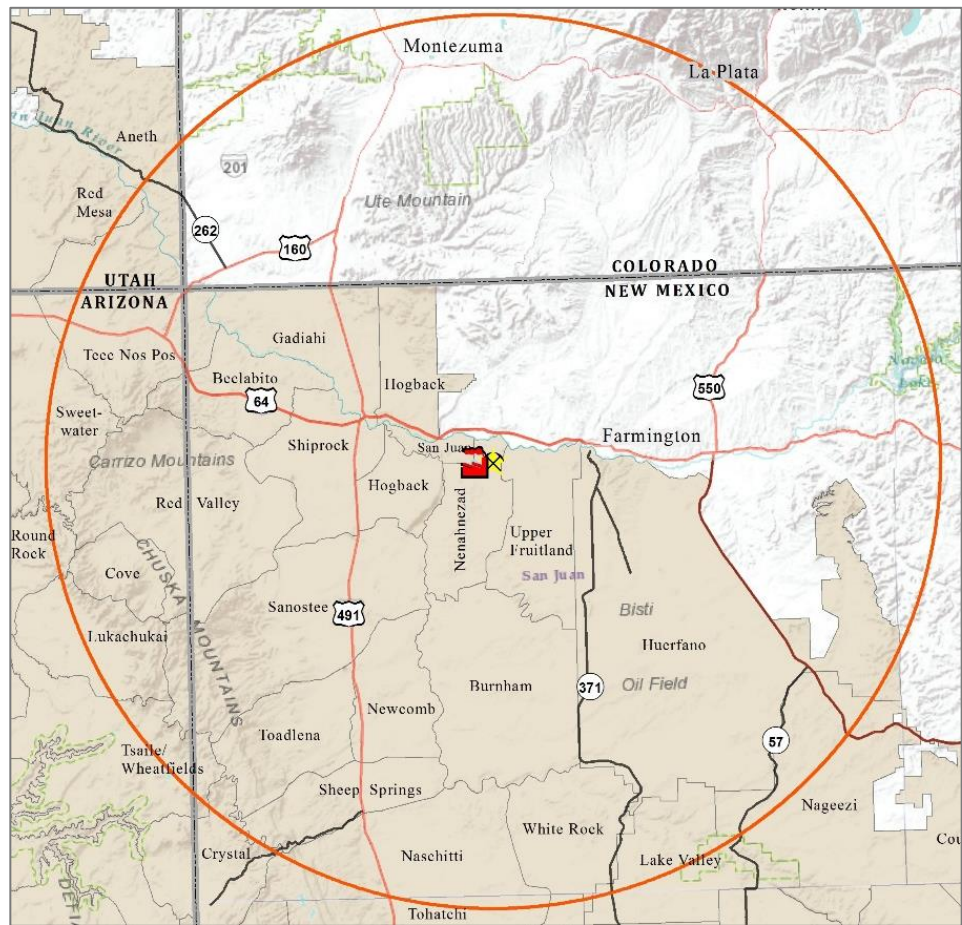


Figure 5. Map showing Chapters surrounding FCPP and Navajo Mine.

Table 2. Population Changes in Navajo Chapters Surrounding FCPP and Navajo Mine from 2000 to 2010				
Chapter	2000	2010	Change 2000-2010	Total percent change
Beclabito	819	749	(30)	-3.67%
Burnham	240	280	40	16.7%
Cove	505	430	(75)	-14.9%
Gadiahi	N/A	550	N/A	N/A
Hogback	1,386	1,215	(171)	-12.3%
Huerfano	2,366	2,633	267	11.3%
Lake Valley	442	306	(136)	-30.8%
Lukachukai	2,012	2,154	142	7.1%
Naschitti	1,695	1,500	(195)	-11.5%
Nenahnezad/San Juan	1,695	1,792	97	5.7%
Newcomb	509	629	120	23.6%
Red Valley	1,237	1,417	180	14.6%
Sanostee	1,908	1,795	(113)	-5.9%
Sheep Springs	821	801	(20)	-2.4%
Shiprock	9,279	9,126	(153)	-1.6%
Sweet Water	1,413	1,535	122	8.6%
Teec Nos Pos	1,323	1,301	(22)	-1.7%

Chapters	2000	2000	2000	2000
Two Grey Hills	1,329	1,157	(172)	-12.9%
Upper Fruitland	2,892	2,751	(141)	-4.9%
Whiterock	60	76	16	26.7%
Total	<b>31,950</b>	<b>32,697</b>	<b>747</b>	<b>2.3%</b>

## **2.4 HOUSING**

Available housing is critical to attracting businesses to the Navajo Nation, and homeownership creates stable communities. An internal survey by the Navajo Housing Authority (NHA) revealed that more than 34,000 new homes are needed on the Nation, while an additional 34,000 existing homes need renovating or updating (Klotz, et al., 2011). The lack of available housing on the Navajo Nation requires people to commute over long distances to work, and some buy a home off the Nation in border towns.

The quality of homes on the Navajo Nation is also important to home buyers, business owners, and business owners' employees. The Navajo housing stock is characterized below, according to Klotz, et al. (2011):

- The median home value within the Navajo Nation is \$63,500, which is roughly one-third of the national median (\$185,000). 70% of homes in the Navajo Nation are valued at less than \$100,000.
- Fifty-nine percent of Navajo Nation housing structures are single-family homes, 17% are mobile homes, and 11% are traditional hogans.
- 80% of homes are occupied by their respective home owners while the remaining 20% are occupied by non-owners (but not necessarily renters). The ownership rate of Navajo Nation residents is significantly higher than the national rate where only about 66% of the population owns a home.
- 80% of homes are powered by a public electric utility. In contrast, 98% of U.S. Homes are serviced by a public utility electricity.
- Over half of households in the Navajo Nation have access to a public water supply, while nearly one third of households require water transportation/hauling for domestic purposes.
- Fifty-one percent of all individuals living within Navajo tribal lands reported having incomplete bathroom facilities, and 55% reported incomplete kitchen facilities. In the US, 99% of housing units possess complete bathroom and kitchen facilities.
- Navajo Nation homes have a median total of three (3) rooms, whereas the US median is 5.4 rooms. 24% of homes in the Navajo Nation have only one room, compared with the US in which single room homes account for only 1% of the housing stock.

## **2.5 INFRASTRUCTURE**

Utility infrastructure is very critical for economic growth on the Navajo Nation. Navajo Tribal Utility Authority (NTUA) is the primary service provider of electricity, water, telecommunications, gas, and wastewater facilities. It serves 40,000 customers including residential, public, commercial, and industrial customers on the Navajo Nation. Arizona Public Service (APS) also provides some electrical power to the study area. During the public meetings held at CCC and SJC, broadband Internet and water infrastructure were identified as the most needed infrastructure in the study area.

## 2.5.1 Broadband Internet

Many reservations lack the critical infrastructure necessary to access the most current broadband service and technology. The term broadband commonly refers to high-speed Internet access. Broadband and wireless technologies are playing an increasing larger role in enabling economic development on reservations.

In 2009, NTUA received \$32,190,067 from the American Recovery and Reinvestment Act of 2009 for broadband infrastructure on Navajo. These funds were matched by NTUA and its partner, *Commnet Wireless, LLC*, in the amount of \$13,796,743. Since then, 550 miles of fiber optic trunk line have been constructed. **Figure 6** presents a map showing the configuration of the existing fiber optic backbone from NTUA's website (ntua.com).

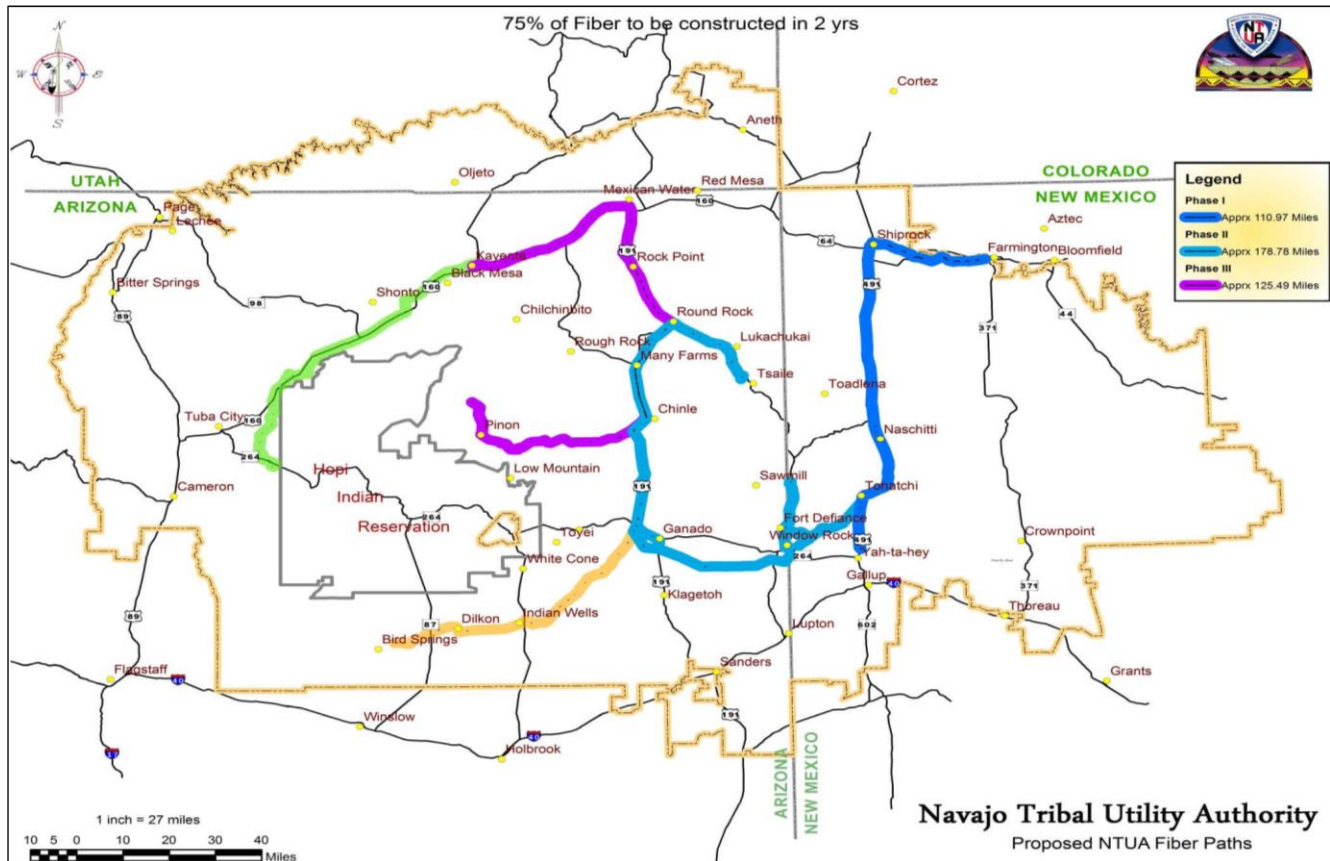


Figure 6. Map showing fiber optic backbone on Navajo Nation (from www.ntua.com).

In addition, 27 existing communications towers were modified for the broadband objective, and 32 new communications towers were constructed to support 1,334 miles of licensed microwave and 1,265 square miles of point-to-point 4G-LTE wireless coverage.

**Figure 7** shows the existing 700 MHz LTE coverage by NTUA. Other service providers, such as AT&T, can send their signal through NTUA's system. Based on this map, there are many areas that lack coverage in the study area.

Some communities, such as Tuba City, are seeking to extend fiber optic cable to their communities; it currently comes within six miles. Some chapter houses are located next to existing fiber optic cable lines, but they are not connected because they do not want to pay for the service. NTUA is willing to expand the broadband and LTE coverage to all Navajo Nation areas, but they are limited by the cost



to build towers (about \$500,000 per tower), and it is very challenging to obtain land-use consent from livestock permit holders for right-of-way (ROW).

Businesses and individuals can obtain service through NTUA Wireless for Internet access. However, some businesses may need stronger broadband connectivity. In such cases, they may need to work with NTUA for cable service. These situations would be evaluated on a case-by-case basis by NTUA to determine the most feasible way to provide broadband Internet service.

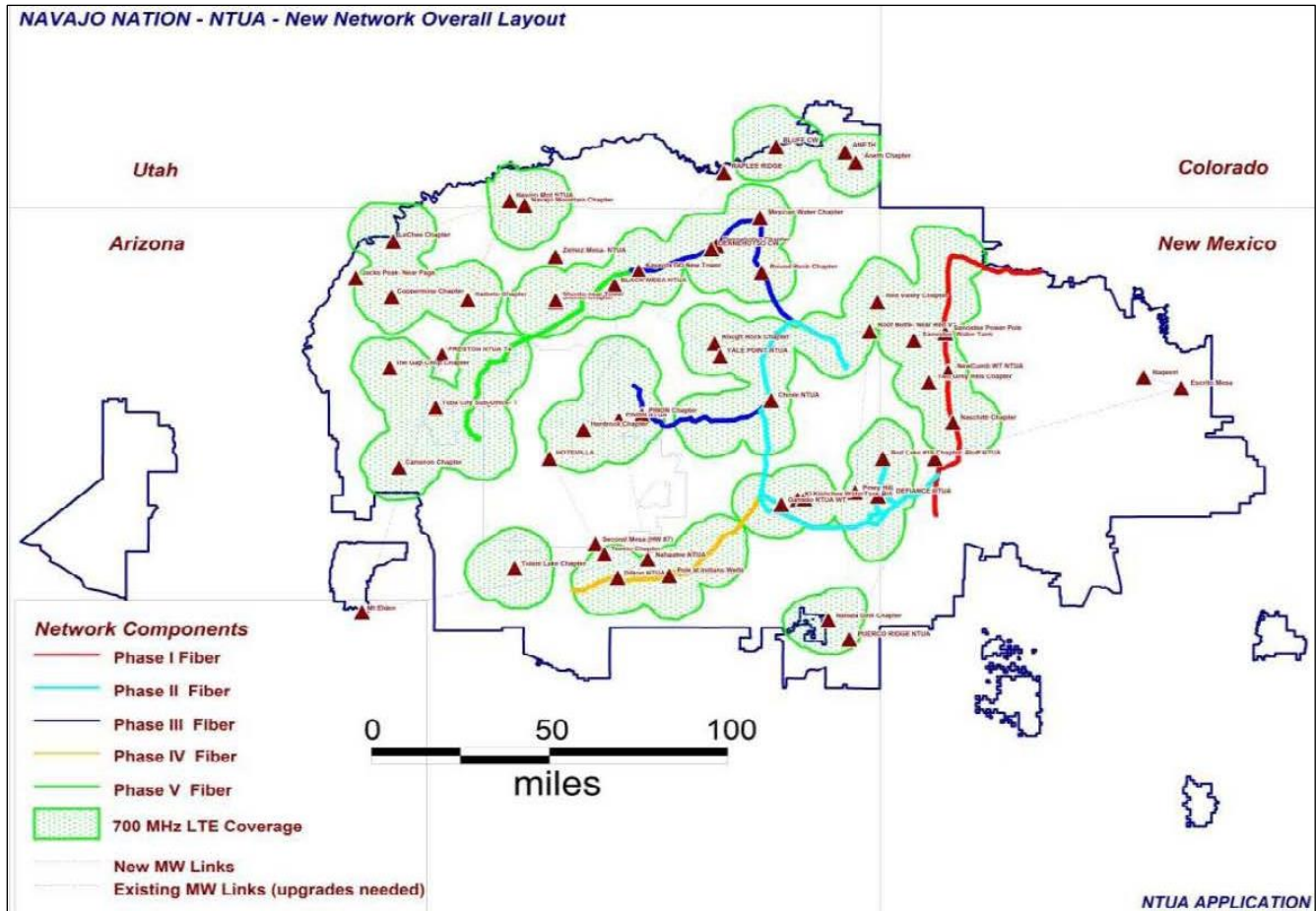


Figure 7. Map showing LTE coverage across Navajo Nation (from ntua.com)

### 2.5.2 Water Infrastructure

Stakeholders also identified water infrastructure as greatly lacking and hindering economic and housing development. Over 40 percent of Navajo Nation households rely on hauling water to meet their daily needs, which is very costly. A representative of *Dzil Yijjin Regional Chapters*, a group comprising seven chapters generally located south of Kayenta Mine, stated during a public meeting that water and roads were critical for them to develop economically. Various water projects are underway across the Navajo Nation that can support economic development.

Navajo-Gallup Water Supply Project. The Navajo-Gallup Water Supply Project, for example, is a major infrastructure project that is being constructed. It is the cornerstone of the Navajo Nation water rights settlement in the San Juan River Basin in New Mexico. Once constructed, it will convey a reliable municipal and industrial water supply from the San Juan River to the eastern section of the Navajo Nation and the city of Gallup, New Mexico via approximately 200 miles of pipeline, several pumping plants, and two water treatment plants. The project is designed to provide a long-term sustainable

water supply to meet the future population needs of approximately 250,000 people in New Mexico, including 43 Navajo chapters. Currently, these areas rely on a rapidly depleting groundwater supply that is of poor quality and inadequate to meet the current and future demands of more than 43 Navajo chapters and the city of Gallup. Public Law 111-11, signed on March 30, 2009, provided the authorization to construct this important project as a major component of the Navajo Nation San Juan River Basin Water Rights Settlement in New Mexico. Construction has been underway since 2012 and will be completed in 2024 (BOR, 2017).

**Other Water Projects.** In 2016, the Navajo Nation Council appropriated \$68.25 million for various water projects to support economic development from the Permanent Trust Fund (Resolution CAP-19-16). That same year, the Council appropriated another \$180 Million for water projects across the Navajo Nation under the Sihasin Funds (Resolution CAP-12-16). Because of this funding, Navajo Chapters will have an opportunity to expand economic development. **Table 3** lists funded projects within the study area. A primary example of these projects is the Navajo Western Pipeline, which will convey water from Lake Powell beyond LeChee to serve Coppermine, Bodaway/Gap, Tuba City, and Cameron Chapters. It will supplement the current groundwater supply with surface water. It will also upgrade and connect individual systems to one big system.

There are many other proposed and feasible, yet unfunded, water projects on the chapter-level across the Navajo Nation. One such example is LeChee Chapter. LeChee is interested in developing a water distribution line to serve the Lower Antelope Canyon area, a major tourist attraction in the Chapter.

**Table 3. List of Chapter projects that were funded by the NNC for the affected areas**

<b>Chapter</b>	<b>Water Project</b>	<b>Chapter</b>	<b>Water Project</b>
<b>Chinle</b>	Chinle Water Treatment Plant Ph. 1 (NTUA), Lift Station Upgrades (NTUA), Pipeline Upgrades (NTUA)	<b>Nenahneezad</b>	San Juan Lateral Chapter Connection Plan (WMB)
<b>Coppermine</b>	Western Navajo Pipeline Phase 1 – LeChee – Coppermine Connection Feasibility Study (WMB)	<b>San Juan</b>	San Juan Lateral Chapter Connection Plan (WMB)
<b>Inscription House</b>	Inscription HSE Isolated Cistern (IHS)	<b>Upper Fruitland</b>	San Juan Lateral Chapter Connection Plan (WMB)
<b>Tuba City</b>	Tuba City Wastewater Treatment Plant (NTUA); Pipeline Upgrades, and Well upgrades.	<b>Huerfano</b>	Chapter Water CIP plans (2019) (WMB)
<b>Kayenta</b>	Kayenta Wastewater Treatment Plant (NTUA), Pipeline Upgrades (NTUA)	<b>Burnham</b>	Chapter Water CIP plans (2019) (WMB)
<b>LeChee</b>	Western Navajo Pipeline, Ph 1 (WMB), Lift Station Upgrades (NTUA).	<b>Shiprock</b>	Shiprock WWTP Phase 1 (NTUA), Shiprock North Lift Station Replace (IHS), Lift Station Upgrades (NTUA), Shiprock Farm Area Sewer Ph II (IHS), Pipeline Upgrades (NTUA)
<b>Pinon</b>	Pinon Additional Well (WMB), Chapter Water CIP plans 2020 (WMB)	<b>Sanostee</b>	Sanostee Replacement Well (IHS)n Chapter Water CIP plans (2019) (WMB)
<b>Red Valley</b>	Red Valley PRV Replacement (IHS), Chapter Water CIP plans (2019) (WMB)	<b>Cove</b>	Chapter Water CIP plans (2019) (WMB)

## **2.6 WORK FORCE DEVELOPMENT PROGRAMS**

As industries evolve, there is a need for workforce development programs to retrain workers. Collaboration between leading employers (industries) and colleges/universities can lead to the best workforce development solutions. Workforce development programs can deliver career and technical education skills-training, so people can earn well-paying jobs. The establishment of the Northern Arizona Consortium for Higher Education (NACHE) is an example of an effort to address workforce development programs that meet industry needs.

On April 28, 2017, a Memorandum of Understanding was signed by the Diné College, Navajo Technical University (NTU), Northern Arizona University (NAU), and Coconino Community College (CCC) establishing NACHE. It was established to address workforce needs for the region's changing industry, and its vision is to create and promote learning opportunities through a partnership that meets the economic and cultural needs of the region to foster and enrich lives through outreach access, success, and completion. Its mission statement is to provide quality, accessible, and affordable higher educational opportunities which serve the diversity of the Northern Arizona region. Kay Leum is the contact person at CCC on behalf of NACHE. Below is a description of the educational institutions that will support NACHE's mission.

Diné College: Diné College currently has six campuses on the Navajo Nation. The campuses are located in Chinle, Tsaile, Window Rock, Tuba City, Crownpoint, and Shiprock. Diné College offers general education courses, and some degree programs are available. It offers the following programs:

- Agro Ecology/Environmental Science
- Business Administration and Management, Inc. Business Incubator
- Computer Technology & Information Systems
- Digital Arts
- Diné Studies, Navajo Culture, Navajo Nation Leadership
- Irrigation Technician
- Natural Resources

Navajo Technical University (NTU): NTU offers certificate programs, Associate, Bachelor, and Master's degree programs. It is the first university that was established on the Navajo Nation. NTU has locations in Crownpoint, Chinle, and Teec Nos Pos. It offers the following programs:

- Carpentry and Construction Technology
- Culinary Arts and Professional Baking
- Dine Culture
- Energy Systems
- Environmental Science and Natural Resources
- Geographical Information Technology
- Information Technology, Applied Computer Technology
- Textile and Weaving

Northern Arizona University (NAU): NAU's main campus is in Flagstaff. It offers in-state tuition for students that graduated from a high school on the Navajo Nation. There are NAU campuses in Ganado, Fort Defiance, Chinle, Kayenta, Keams Canyon, Page, and Tuba City. It offers the following programs:

- Bachelor's and Master's in several programs that complement the programs listed above
- Center for American Indian Economic Development



- Institute for Tribal Environmental Professionals
- Northern Arizona Center for Entrepreneurship and Technology
- Applied Indigenous Studies degree

Coconino Community College (CCC): Conveniently located near the Navajo Nation, CCC has a campus in Page, Arizona that offers the following associate degrees and certificates:

- Computer Software Technology, Computer Technician
- Construction Technology
- Environmental Technology: Alternative Energy
- Graphics and Web Design
- Hotel and Restaurant Management and Services
- Network Engineering
- Sustainable Green Building

In addition, CCC offers the following non-degree programs in workforce training and continuing education programs that support economic strategies:

- Apartment and Hotel Maintenance Technology
- Basic Skills (Reading, Writing, Literacy)
- Computer Applications
- Customer Service Skills
- Public Speaking Skills Financial Literacy
- Starting a Business
- Life Skills
- Accounting
- Tribal Leadership
- OSHA 10 and 30 Training
- Alternative Energy
- Owning and Managing Short-Term Rentals

### 3 ECONOMIC CONDITIONS

This section describes key economic indicators in the study area, key industries and emerging industries, the relationship of the Navajo economy to that of a larger region, and factors that affect economic performance.

#### 3.1 KEY ECONOMIC INDICATORS

This section presents the key economic indicators for the communities surrounding NGS/Kayenta Mine and FCPP/Navajo Mine. The economic data is based on the 2010 census. Key indicators include median household income, per capita income, total labor force, and unemployment. It compares the local economic indicators to that of the overall Navajo Nation indicators.

##### 3.1.1 Communities Surrounding NGS and Kayenta Mine

Among the communities surrounding NGS and Kayenta Mine, LeChee Chapter had the highest median household income at \$51,310, followed by Coppermine at \$44,688, and Chinle at \$29,629. For comparison, the Navajo Nation’s median household income was \$27,389. LeChee Chapter also had the highest per capita income at \$18,334, followed by Tuba City at \$13,787, and Forest Lake at \$13,062. For comparison, the Navajo Nation’s per capita income was \$10,547.

Chinle Chapter had the highest labor force at 5,386, followed by Tuba City at 5,366, and Kayenta at 3,823. Unemployment was lowest in Tuba City at 4.1%, followed by Rock Point at 7.5%, and Dennehotso at 7.7%. Unemployment was highest in Coppermine at 19.9%, followed by Kaibeto at 18.6%, and Black Mesa at 18.4%. In comparison, the unemployment rate for the Navajo Nation was 21.6%. **Table 4** list economic indicators for communities surrounding NGS and Kayenta Mine.

Chapter	Median Household Income	Per Capita Income	Total Labor Force (estimate)	Unemployment Rate
Black Mesa	\$16,250	\$8,321	81	18.4%
Chilchinbeto	\$17,875	\$7,985	236	8.8%
Chinle	\$29,629	\$10,686	2,736	8.6%
Coppermine	\$43,750	\$11,002		19.9%
Dennehotso	\$23,571	\$9,079	376	7.7%
Forest Lake	\$21,136	\$13,062	72	8%
Hard Rock	\$15,272	\$10,244	264	8.5%
Inscription House	\$27,917	\$12,953	377	15%
Jeddito	\$19,800	\$6,831	283	14.8%
Kaibeto	\$28,641	\$10,464	592	18.6%
Kayenta	\$25,932	\$11,111	1,880	8.3%
LeChee	\$51,310	\$18,334	649	17.2%
Low Mountain	\$14,048	\$9,249	284	16.1%
Many Farms	\$31,563	\$10,988	907	16%
Oljato	\$25,804	\$9,234	395	4.1%
Pinion	\$28,983	\$9,447	748	14.4%
Rock Point	\$26,012	\$8,071	390	7.5%
Round Rock	\$23,125	\$8,646	210	13.2%

**Table 4 (Con't). Income, Labor Force and Unemployment in Chapters surrounding Kayenta Mine and NGS**

Chapter	Median Household Income	Per Capita Income	Total Labor Force (estimate)	Unemployment Rate
Shonto	\$25,035	\$11,349	670	12.8%
Tachee/Blue Gap	\$17,443	\$9,250	232	12.2%
Tonalea	\$19,620	\$8,702	681	17.9%
Tselani	\$19,950	\$10,499	354	9.7%
Tuba City	\$46,034	\$13,787	3,351	4.1%
Whippoorwill	\$17,357	\$6,618	227	21.6%
<b>Total</b>	<b>\$20,005</b>	<b>\$7,269</b>	<b>114,966</b>	<b>9.8%</b>

### 3.1.2 Communities Surrounding FCPP and Navajo Mine

Cove Chapter had the highest median household income at \$41,536, followed by Upper Fruitland at \$37,232, and both Nashchitti and Nenahnezad/San Juan were at \$32,375. Cove Chapter also had the highest per capita income at \$15,126, followed by Newcomb at \$14,183, and Shiprock Chapter at \$13,558. The highest labor force was found in Shiprock Chapter at 6,117, followed by Upper Fruitland at 1,827, and Huerfano at 1,471. Unemployment was lowest at Two Grey Hills at 4.3%, followed by the next lowest, Whiterock Chapter at 4.4%, and Teec Nos Pos at 5.1%. Burnham Chapter had the highest unemployment rate at 16.3%, followed by Huerfano Chapter at 14.1%, and Nenahnezad at 11.5%.

**Table 5** lists economic indicators for communities surrounding FCPP and Navajo Mine.

**Table 5. Income, Labor Force and Unemployment in Chapters Surrounding Navajo Mine and FCPP**

Chapter	Median Household Income	Per Capita Income	Total Labor Force	Unemployment Rate
Beclahbito	\$28,333.00	\$13,140.00	603	9.6%
Burnham	\$12,917.00	\$8,552.00	110	16.3%
Cove	\$20,625.00	\$12,514.00	62	21.0%
Gadiahhi	\$49,375.00	\$15,586.00	404	11.1%
Hogback	\$34,231.00	\$13,517.00	815	8.6%
Huerfano	\$28,633.00	\$10,708.00	1,471	14.1%
Lake Valley	\$20,417.00	\$11,497.00	289	11.0%
Lukachukai	\$27,222.00	\$9,018.00	1,261	5.7%
Naschitti	\$32,375.00	\$10,566.00	1,185	7.6%
Nenahnezad/San Juan	\$32,375.00	\$10,566.00	1,162	11.5%
Newcomb	\$23,750.00	\$14,183.00	216	9.8%
Red Valley	\$24,038.00	\$10,595.00	1,122	9.7%
Sanostee	\$20,125.00	\$10,664.00	1,338	9.0%
Sheep Springs	\$16,250.00	\$9,691.00	543	11.3%
Shiprock	\$31,805.00	\$13,558.00	6,177	6.6%
Sweet Water	\$24,417.00	\$12,653.00	829	7.2%
Teec Nos Pos	\$26,458.00	\$11,541.00	913	5.1%
Two Grey Hills	\$20,250.00	\$12,687.00	1,363	4.3%
Upper Fruitland	\$37,232.00	\$13,428.00	1,827	8%
Whiterock	\$20,833.00	\$11,916.00	102	4.4%

## 3.2 INDUSTRIES ON THE NAVAJO NATION

The largest industry on the Navajo Nation is the educational services, health care, and social assistance industry, employing 39.8% of the workforce population. This is followed by the arts, entertainment, recreation, accommodation, and food service industry, which employs 10.3% of the population (U.S. Census Bureau, 2015). Other industries employ less than 10% of the workforce. A breakdown of the industry sectors on the Navajo Nation is provided below.

<u>Navajo Nation Industry Sectors</u>	<u>Employees</u>	<u>Percent</u>
Educational services, health care, and social assistance	17,676	39.8%
Arts, entertainment, recreation, accommodation, and food service	4,589	10.3%
Public Administration	4,231	9.5%
Retail trade	4,070	9.2%
Construction	4,026	9.1%
Transportation, warehousing, and utilities	2,335	5.3%
Agriculture, forestry, fishing, hunting, and mining	1,579	3.6%
Manufacturing	1,507	3.4%
Professional, scientific, management, waste management	1,468	3.3%
Other services besides public administration	1,194	2.7%
Finance, insurance, and real estate/rental leasing	949	2.1%
Information	347	0.8%
TOTAL	44,373	100%

## 3.3 EMERGING INDUSTRY SECTORS

The growth of industry on Navajo Nation over the past ten years has been focused on health care, public administration, and utility services. With the pending mine and plant closures, an opportunity exists to provide localized jobs that can expand tourism, agriculture, internet technology, and health care. Businesses that take advantage of the growing expansion of broadband Internet service across Navajo can tap into established industries such as the arts, tourism, and hospitality. It will take the combined effort and support from the Nation, Navajo chapters, and land users to support broadband and fiber optic expansion to create new employment opportunities.

### 3.3.1 Tourism

Arizona's warm weather and magnificent natural beauty made tourism the number one export industry in Arizona in 2016. Around 43 million people visited Arizona in 2016 according to the State's Tourism Office. These visitors collectively spent \$21.2 billion in the state. This money supports jobs and generates tax revenue (Arizona Office of Tourism, 2017). It is unknown how much of this money impacts the Navajo nation.

Tourism is an emerging industry on the Navajo Nation due to its proximity within the Grand Circle, an area containing America's largest concentration of national parks and monuments woven together by extraordinary designated scenic byways. At least nine National Parks are located within or near the Navajo Nation, including Grand Canyon, Zion, Bryce Canyon, Lake Powell, Arches, Canyon De Chelly, and Chaco Canyon. Each year millions of tourists visit these parks and recreation areas (including tribal parks) and most travel through Navajo Nation to get to their destinations. There are many opportunities in the tourism industry for Navajo businesses.

According to a tourism study by Cothran, et al., the top reasons people visit the Navajo Nation are: 1) scenic attractions and sight-seeing, 2) outdoor recreation, 3) shopping for arts and crafts, 4) to see family and friends, and 5) cultural activities (2012). Given the number of visitors, there are

opportunities for local Navajo entrepreneurs to provide tourist services, such as tour guides, bed and breakfasts, Airbnb's, campground/RV parks, and food service along the tourism routes. **Figure 8** shows the Navajo Nation and the various parks within the Grand Circle as well as the existing scenic routes.

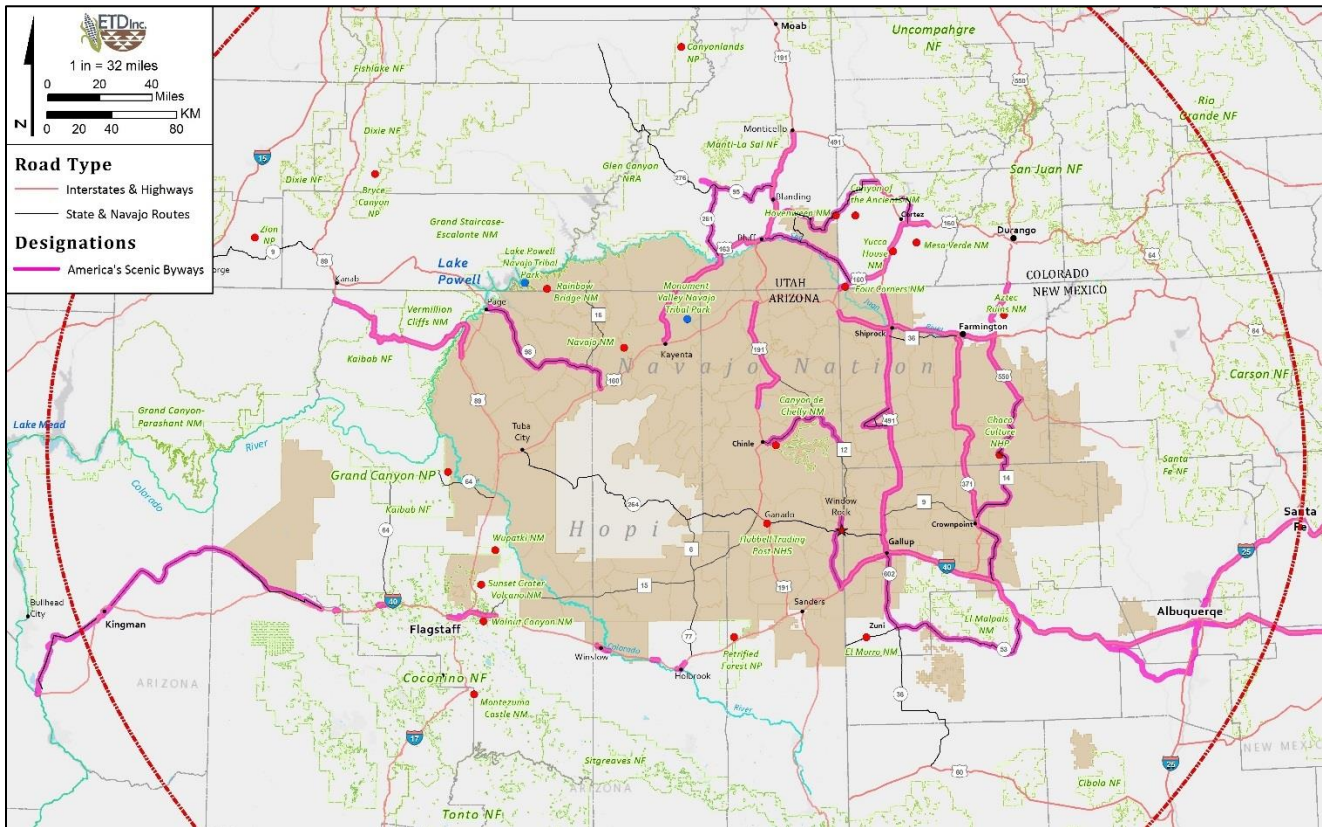


Figure 8. Map showing Navajo Nation within the Grand Circle

### 3.3.2 Agriculture

Historically, the Navajo people have relied on each other for growable crops. With today's modern conveniences, many Navajo people have stepped away from their heritage of growing food and traded that heritage for the supermarket. Agriculture has three primary areas that can be enhanced on the Navajo Nation: enhanced garden farming, livestock management, and technical assistance.

**Garden Farming.** Garden farming is essentially the use of nearby land for garden food crops. By incorporating modern agricultural techniques, agriculture can become an export business to many through family farming. This will require investment in technology such as greenhouses that allow for broader growing seasons, protecting the land and crops from wind, and allowing for optimized water conservation. A High Tunnel Farming System, commonly called a "hoop house," is an increasingly popular conservation practice for smaller garden farming. Financial assistance is available through the USDA's Environmental Quality Incentives Program (EQIP). By forming cooperative farming groups, products can find their way to on- and off-Navajo Nation markets providing families with direct jobs and income.

**Livestock.** Many Navajo families raise livestock to supplement their livelihood and to maintain their tradition. By forming livestock cooperatives, livestock producers can create better economic opportunities for one another. The Navajo Beef program is a notable example of a successful tribal livestock cooperative. "Navajo Beef" is a brand that began in 2013 under Labatt Food Service (Native

News Online, 2017). Labatt Food Service began working closely with Navajo ranchers in 2010 to help create economic opportunity while ensuring Navajo ranchers get fair and above-market prices for their beef (2017). It currently purchases approximately 400 cattle annually from 43 Navajo families who participate in the demonstration ranch program (2017). The Padres Mesa demonstration ranch program is supported by the Office of Navajo and Hopi Indian Relocation (ONHIR), which manages the range lands in the Newlands area by maintaining the fences and water wells for relocated families who are raising cattle. In 2015, Labatt processed more than 1,200 head of cattle from Navajo ranches, and in 2016, Navajo Beef appeared on the menus of all four Navajo casinos, as well as select hotels and restaurants across the Navajo Nation (Landry, 2016).

Technical Assistance. There are many programs to provide technical assistance for Tribal Cooperatives or individuals. Two examples are:

1. The U.S. Department of Agriculture offers a variety of programs and services that are available to tribal governments and organizations, and individual Native Americans and Alaskan Natives. For additional information on all programs, please visit the Catalog of Federal Domestic Assistance and search by agency for USDA at <http://www.cfda.gov/index>.
2. The Intertribal Agriculture Council (IAC) is a group that Navajo livestock owners can work with for technical assistance. IAC conducts a wide range of programs designed to further the goal of improving Indian agriculture. The IAC promotes the Indian use of Indian resources and contracts with federal agencies to maximize resources for tribal members. Their website is <http://www.indianaglink.com>.

### **3.3.3 Technology Related Industries**

Broadband Internet can support technology related industries and create jobs that will allow residents to remain in the community after they receive higher education or information technology (IT) training. Individuals with advanced IT training and certifications should enjoy highly favorable employment prospects. IT training involves hardware, software, and supporting infrastructure to manage and deliver information. Opportunities can range from large employment prospects through call center operations to home-based businesses.

E-commerce is an opportunity that can arise with broadband Internet and IT support. E-commerce is the trading, or facilitation of, trading in products or services using computer networks such as the Internet (Rouse, 2016). An example of tribal e-commerce is <http://BeyondBuckskin.com>. This website is dedicated to advancing creative small businesses located throughout rural and urban communities by providing an online store where customers can connect with Native American artists. Launched in 2009 by Jessica Metcalf, it creates an opportunity for over 40 individuals, artists, and small businesses to advertise their unique art work to an international audience. There is a tremendous opportunity for Navajo residents to create incomes for themselves while never having to leave their community or home, and broadband connectivity is ultimately key for creating internet-based jobs.

### **3.3.4 Health Care**

On the Navajo Nation, the health care industry had the highest employment growth compared to any other industry. This sector will continue to expand as the Nation takes over more of its health care responsibilities. Education in the areas of nursing and medical technology is key to developing the Navajo workforce on and off the Nation. The health care industry should collaborate with higher learning institutions and NACHE to develop a Native American workforce that can work in this industry.



### 3.3.5 Clean Energy Development

With the broad expanse of land on the Navajo Nation, there exists the opportunity for creating energy independence. This could be achieved through a combination of both solar and wind power generation. This opportunity is less about job creation than it is about energy creation within the Navajo Nation. This would be an additional income source to both the Nation and local chapters, as they would be in position to sell power to residents. NGS owners and the Navajo Nation have agreed the Nation will receive \$167 million in payments from Salt River Project (SRP) over a period of 35 years and access to the use of 500-KV transmission lines, according to their end-of-lease agreement. This will provide opportunities for the development of renewable energy projects on the Navajo Nation.

### 3.4 RELATIONSHIP OF THE NAVAJO ECONOMY TO THAT OF A LARGER REGION

There are 33,584 workers living on Navajo, and over 62% of the workforce works off the Nation. Creating jobs on the Nation will allow workers to stay closer to home, keep revenue on the Nation, and present the Nation with more opportunities for its citizens.

According to the 2010 census, the number of workers that work off the Nation is 20,841; 9,470 workers come from outside the Nation to work; and 12,743 live and work on the Navajo Nation. There is a need to expand and enhance workforce development programs that focus on job categories currently supplied from outside the Nation; thereby providing more opportunities for Nation members.

**Figure 9** illustrates the workforce scenario on the Navajo Nation.

According to the Buxton Company, a nationally recognized retail analytics company, the annual retail sales potential across the Nation is \$1,315,100,365, and the actual sales are estimated to be \$500,158,957 (38%), which leaves the estimated retail leakage off the Nation

in the amount of \$814,941,408 (62%). There is a strong opportunity for the Nation to stimulate on-Nation retail by providing adequate shopping centers and specific retail opportunities that match the needs of the people living on the Nation. The Nation should consider supporting entrepreneurial efforts of local tribal members to engage and broaden the retail effort. This will require the Nation to streamline business startup processes and free land for local development of retail opportunities.

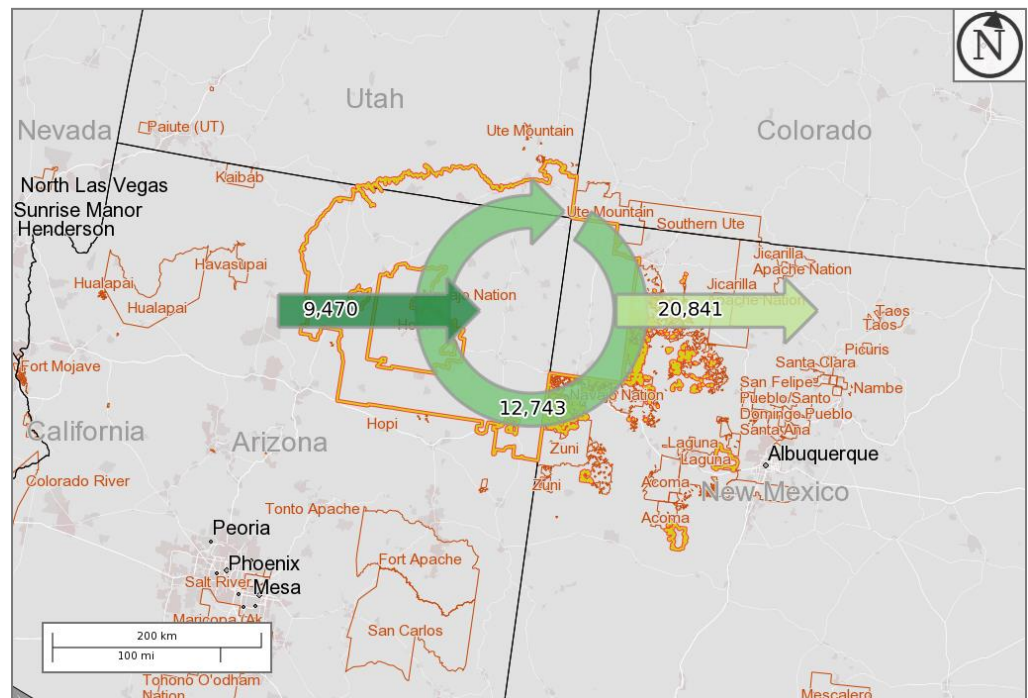


Figure 9. Map illustrating workers that come to the Nation to work and those leaving the Nation to work.



### **3.5 FACTORS THAT DIRECTLY AFFECT ECONOMIC PERFORMANCE**

There are many factors that directly affect economic performance on the Nation. These include the following:

1. Infrastructure. Stakeholders reported infrastructure as highly needed for economic development. Broadband connectivity, paved roads, power, and water were mentioned most often during public meetings. Broadband is needed to provide greater communication, and by entrepreneurs who use the Internet for commerce. Additionally, with the inclusion of broadband, communities can begin to invite industries such as call centers for expanded employment opportunities.
2. Housing. Inadequate housing stock can lead to inhibited support staff for new business startup. As new business begins settling on the Nation, housing stock must be considered to accommodate the needs of support personnel.
3. Business Placement. Land on the Navajo Nation is mainly for rangeland and commercial development, so plans must begin with a withdrawal of land for economic development. The lack of available land for economic development has consistently been mentioned as a key problem inhibiting economic development. To address this issue, the Nation and Chapters need to develop incentives for grazing permit holders to give up land. Then Chapters need to complete land withdrawals and identify funds to pay for market feasibility studies and master plans. Developing clear land entitlements in advance will allow for accelerated business placement and entrepreneurs will be able to plan placement.
4. Workforce Development. Training is required for supported new industries such as new agriculture techniques, Internet technology, hospitality, and other industries brought by the Nation. The Nation needs to support and nurture the NACHE and other workforce development programs in the study area.

### **3.6 NAVAJO NATION ECONOMIC DEVELOPMENT STRATEGIES**

The Navajo Nation Division of Economic Development, Project Development Office, prepared a Five-Year Plan (2016-2021) that contains numerous projects to help develop the economy. The goal is to create jobs and business opportunities, provide convenient access for Navajos to buy goods and services, and generate tribal revenues through lease rental, sales tax, fuel tax, and possessory interest tax. In 2016, the Navajo Nation Council funded a number of these projects under the Five-Year Plan using the interest earned from the Navajo Nation's Permanent Trust Fund.

Under Resolution No. CAP-19-16, \$81.75 million was funded for economic development projects and \$68.25 million was funded for water projects to support economic development. The funds will pay for various phases of each project, such as: 1) feasibility studies; 2) pre-planning; 3) planning and design; and 4) construction. NNDED will contract professional services and construction companies to conduct the work. There are opportunities for Navajo professional and construction services to bid on these projects.

Constructing commercial properties is a strategy to address the fact that prospective business owners are deterred from leasing and developing properties on the Navajo Nation due to high development costs (including infrastructure extensions), inability to earn equity on leased property, dual taxation in certain transactions, and other factors. Therefore, it is important NNDED build shopping centers and other retail space for businesses to lease. NNDED's Project Development Office also has compiled a list of available commercial tracts in all five agencies of the Navajo Nation, most of which are immediately available for leasing. In addition, they have a website that lists all available industrial tracts (<http://NavajoAdvantage.com>) and provides a picture, site description, and list of readily available infrastructure. **Appendix D** contains information from the NNDED about these locations.

## **4 REGIONAL IMPACTS OF CHANGING ENERGY MARKETS**

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The total economic impacts of coal mine and power plant stations are both direct and indirect. Determining the magnitude of adverse impacts helps to ‘diagnose’ the level of economic dislocation in the affected areas and informs the level and type of response required to mitigate these impacts (Highlands, 2017).

As previously stated, coal mining and power generation provide direct jobs and income that support economic activity in other sectors of the economy. For example, coal mines and power plants purchase goods and services, such as equipment, fuel, maintenance, and repair services. Such purchases increase economic activity in other sectors, supporting additional indirect jobs and income. Employees of both directly and indirectly impacted sectors then spend their earnings on household goods and services, such as housing, food, retail stores, and entertainment (Highlands, 2017).

Recent studies have been conducted by various groups to estimate the economic impacts of the changing energy industry on and near the Navajo Nation. This chapter describes past and current mining and coal-burning power plants on Navajo Nation and their economic contributions, as well as impacts of changing energy markets.

### **4.1 MINES AND POWER PLANTS**

This section describes the FCPP/Navajo Mine and NGS/Kayenta Mine operations, as well as past coal mining operations on the Navajo Nation.

#### **4.1.1 FCPP/Navajo Mine**

Since 1963, APS has owned and operated FCPP located in Nenahnezad Chapter of the Navajo Nation, San Juan County, New Mexico. The plant is currently operating two of its original five units. Three units closed in 2014 as part of an agreement to comply with new federal air quality standards. The partial shutdown reduced capacity from 2,040 MW to 1,540 MW, and employment from 500 to approximately 350 people (Highlands 2017). During that time, APS made a commitment that there will be no layoffs resulting from the unit shut downs; rather, reduced employment at the plants will come from natural attrition or separations (Highlands 2017).

Navajo Mine is the sole source provider of coal to FCPP. In 2013, the Navajo Transitional Energy Company (NTEC) purchased the mine and managed the mine’s ownership transfer, currently overseeing its operations. In February 2017, Bisti Fuels entered a 15-year contract with NTEC, giving Bisti Fuels authority to manage Navajo Mine’s operations for NTEC (Highlands, 2017). Because NTEC would be exempt from some local, state, and federal taxes, net revenues after taxes would be higher; thus, more revenue conceivably would be available to the tribal government (OSMRE, 2015).

From 2001 to 2013, the Navajo Mine produced an average of 8.3 million tons of coal annually. Following the decrease in energy production at FCPP, Navajo Mine’s production declined from 7.2 million tons produced in 2013 to 6.0 million tons per year, which is the tonnage expected over the next 15 years. The mine currently employs about 320 people (Highlands, 2017).

#### **4.1.2 NGS/Kayenta Mine**

NGS is a 2,250 MW coal-fired power plant located in LeChee Chapter, approximately five miles east of Page, Arizona. Kayenta Mine is the sole supplier of coal to NGS, and the mine itself is located on Black Mesa, 80 miles east of NGS. The mine and plant provide baseload power to over 1 million customers in Arizona, California, and Nevada (BOR, 2016). In December 2017, SRP (NGS owner/operator)

concluded that the plant and the mine will close at the end of 2019 due to “changing economics in the power industry” (Frazier, 2017).

In 2014, NGS had 495 employees with an average payroll and benefits cost of nearly \$145,000 per employee totaling \$19.4 million/year of labor income. Eighty-six percent of the 495 NGS employees were Native American, and mostly Navajo, with 27% living on the Navajo Nation.

In 2014, Kayenta Mine had 440 employees; 99% of the workers were Navajo. Seventy-five percent of the 440 employees lived on the Navajo Nation. Navajos also worked for contractors and vendors with long-term contracts with the mine to provide maintenance, reclamation, and security services. Seventy-nine people worked for these contractors and vendors (BOR, 2016); in this case, the number of Navajo workers is unknown.

In 2017, there was uncertainty regarding NGS’ and Kayenta Mine’s future. However, as mentioned, it recently was confirmed that the NGS will close at the end of 2019, because of changing economics in the power industry. A recent statement released in December 2017 in the *Navajo Times* outlines this:

“Salt River Project (SRP) has assured all NGS employees that they will have a retention bonus to stay on the job as well as a replacement job within the company, so they can continue to care for their families. And, because of the coordinated efforts of the NGS owners and the Navajo Nation, the Nation will now receive \$167 million in payments over the next 35 years, access to the use of 500-kV transmission lines to fulfill its dream of producing and selling renewable power, the NGS lake pump system that could provide a way to access Lake Powell water, the NGS warehouse and other buildings worth millions of dollars, the railroad and – also critical to the Navajo Nation – SRP’s support for the Nation as it seeks to secure rights to Arizona’s water allocation, a portion of which NGS has used since it went online in 1974” (Frazier, 2017).

#### **4.1.3 Past Mining Operations**

Past mining operations on Navajo Nation include Black Mesa Mine and McKinley Mine. Black Mesa Mine (which closed in 2005) supplied coal to the Mohave Generating Station, a power plant in Laughlin, Nevada, via the 273-mile pipeline. In 2005, the Mohave Generating Station shut down as a result of a Clean Air Act lawsuit, and because the Navajo and Hopi tribes both passed resolutions ending Peabody’s use of the N-Aquifer. The owners of Mohave chose to shut down the plant rather than upgrade it to acceptable pollution standards. Since the plant was the sole customer of the Black Mesa Mine, and because Peabody did not have an alternative source of water, operation of the mine and slurry line ceased as well.

The McKinley Mine, located near the Arizona-New Mexico border, closed in 2009. The mine was located on Navajo tribal trust land, state land, and private land; the portion of the mine located on tribal trust land consisted of 11,157 acres. From 1972 to 2009, it supplied coal to APS’ Cholla Generating Station in St. Johns, Arizona. In 2009, the coal mine reserve ran out and the mine closed, resulting in roughly 218 employees being laid off, 86% of which were Navajo.

## **4.2 REGIONAL IMPACT STUDIES**

This section describes economic contributions and predicted impacts associated with impending closure of NGS and Kayenta Mine, and estimated impacts of reduced coal and energy production at FCPP and Navajo Mine.

#### 4.2.1 NGS & Kayenta Mine – An Economic Impact for the Navajo Nation

This study was conducted by Evans, James, Gamez, and Madley in 2013. It was prepared to assist the Navajo Nation with lease and ROW negotiations when the owners considered extending the lease. The study area covered 57 zip codes representing the Navajo Nation, supplemented by household expenditure data to estimate the impact of the NGS and Kayenta Mine, exclusively for the Navajo Nation. These impacts are described in terms of employment and labor income for the Navajo Nation and the Gross Navajo Nation Product (GNNP), assuming continuance of current operations through 2044.

The study estimated that the combined economic impact to the study area, covering 57 zip codes, includes both the direct and induced effects that arise as income is recycled within the Navajo Nation economy. The study estimated that the combined economic impact of NGS and Kayenta Mine includes 2,963 jobs, \$236 million per year of labor income, and a GNNP of \$517.6 million. **Table 6** summarizes the estimated economic impacts that NGS and Kayenta Mine contribute to the region. When NGS and Kayenta Mine close, the elimination of their economic contribution will be significant to the state, county, municipalities, tribal governments, and citizens in the affected area.

Economic Impact	Employment (jobs)	Labor Income (Millions 2020 Dollars)	GNNP (Millions 2020 Dollars)
NGS	1,508	123.6	308.5
Kayenta	1,455	113.0	209.2
Combined	2,963	236.6	517.6

#### 4.2.2 Navajo Generating Station-Kayenta Mine Project Draft Environmental Impact Statement (EIS)

In 2016, the Bureau of Reclamation (BOR) prepared a draft Environmental Impact Statement (EIS) for the continued operation of NGS and Kayenta Mine. However, it was later decided that the plant and mine would close at the end of 2016, leaving it unnecessary to finalize the EIS.

The EIS' Proposed Action was a scenario that would require federal approvals and/or decisions necessary to continue the operation and maintenance of the NGS and associated facilities, the proposed Kayenta Mine Complex, and existing transmission systems for another 25 years, from December 23, 2019, through December 22, 2044, plus decommissioning. The geographic area for this study included the Navajo Nation, Hopi Reservation, and portions of Coconino and Navajo Counties in Arizona. Economic impacts were evaluated under the proposed action.

Impacts were also evaluated for a No-Action Alternative. Under this scenario, BOR would deny new lease agreements and NGS and Kayenta Mine would not be allowed to operate beyond 2019. The economic consequences would be a permanent loss of up to 3,212 jobs and \$261 million in annual labor income for the region. In addition, there would be a loss of indirect jobs, estimated to be 2,048.

There would be a loss of \$43 million/year in tribal lease fees and taxes; \$700,000 in scholarship funds; and \$175 million in abandoned mine funds. Because the NGS and Kayenta Mine are among the largest private sector employers in northeastern Arizona, the effects would extend to Coconino, Navajo, and Apache Counties and throughout the state. **Table 7** presents a summary of the economic impacts of the No-Action Alternative, a scenario where leases for continued operations would not be approved.

**Table 7. Operation and Maintenance Impacts of no activities at NGS and Kayenta Mine (BOR, 2016)**

<b>NGS and Kayenta Mine Related Employment</b>		<b>Jobs</b>
NGS direct, incl. BM&LP and contractors, annually		-521
PWCC direct, incl. Contractors, annually		-519
Overhaul contractors (annual equivalent)		-124
Tribal jobs, annually		-526
Total indirect/induced jobs, annually		-2,048
Total jobs		-3,212
<b>Labor Income and payments to the tribes and local governments</b>		
Annual labor income		-\$261 million per year less
NGS and PWCC lease, royalty, bonus and water payments to the tribes and local governments		-\$58 million/year under current lease and up to -\$43 million/year in foregone lease and additional payments
Scholarships and community contributions		\$700,000 per year less
Reduction in NTUA revenues from electricity sales		\$10 million/year less.
Federal Abandoned Mine Lands and Black Lung Funds 2020 to 2044		-\$175 million

#### **4.2.3 Economic Contribution of the Navajo Generating Station on the City of Page**

This study was conducted by Combrink, Fitch, and Rouse through the Alliance Bank Business Outreach Center at NAU in 2017. It was commissioned by SRP to determine the impact of NGS on the economy of the City of Page. The IMPLAN model was utilized for this study to identify direct and induced impacts and the total economic impact of NGS. According to the report, the total annual economic contribution of NGS on the City of Page is \$51 million, where \$34 million derives from the direct expenditures or actual expenditures of NGS for payroll and operations and maintenance; and \$17 million derives from induced impacts in the form of additional jobs, labor income, and value-added income.

The jobs associated with NGS also include contract employees and employees of Page Unified School District (PUSD). The PUSD employees are supported by NGS property taxes. An interesting detail of the report was the estimated annual economic contribution of \$7.2 million/year from NGS employees that live in LeChee Chapter and surrounding chapters. **Table 8** presents the direct and induced impacts including employee expenditures, additional employment, labor income, and value-added income that are created through recycled spending.

**Table 8. 2017 Annual estimated combined impact of NGS on the City of Page**

<b>Origin of Expenditures</b>	<b>Direct Expenditures</b>	<b>Additional Employment</b>	<b>Additional Labor Income</b>	<b>Value Added</b>	<b>Total Economic Contribution</b>
NGS employees living in Page	\$22,103,736	82.9	\$3,053,081	\$6,483,700	\$31,640,517
NGS employees living in LeChee Chapter	\$3,995,368	15.0	\$551,861	\$1,171,963	\$5,719,192
NGS employees in surrounding chapters	\$3,234,630	12.1	\$446,784	\$948,816	\$4,630,230
Page Unified School District	\$1,089,090	8.1	\$298,993	\$634,958	\$2,023,041
NGS Contract labor	\$3,116,151	23.4	\$856,535	\$1,819,657	\$5,792,343
O&M	\$793,405	6.0	\$356,000	\$511,000	\$1,660,405
<b>Total</b>	<b>\$34,332,380</b>	<b>147.5</b>	<b>\$5,563,254</b>	<b>\$11,570,094</b>	<b>\$51,465,728</b>

#### **4.2.4 Northwest New Mexico Economic Assessment & Strategy**

In 2017, Highlands Economics, LLC (Highlands) completed an economic impact analysis in New Mexico's Cibola, McKinley, and San Juan Counties, due to the region's energy industry changes, and as a means of identifying the best courses of action for the region to strengthen its economic foundation. The economic impact analysis was based in-part on a study prepared by Evans, James, and Madly of Arizona State University (ASU) in 2013 (Highlands, 2017). The study estimated total economic impacts at both the county level and the state level. The modeled economic contributions from FCPP and Navajo Mine in San Juan County include both direct economic contribution in the mining and power generation sectors as well as the indirect ripple effects that result from mine and power plant-related spending in other sectors. The study reports that the downsizing of FCPP resulted in the loss of 150 jobs and \$22.5 million in labor income at FCPP. At Navajo Mine, it resulted in the loss of 180 jobs and \$21.6 million in labor income.

Because FCPP and Navajo Mine employees create additional jobs through spending of their income, there are indirect impacts. The relationship between the direct economic impact and the total economic impact is often referred to as the multiplier. Job and income multipliers were estimated for FCPP and Navajo Mine. The job multiplier for FCPP was estimated to be 2.7, and the job multiplier for Navajo Mine was estimated to be 3.0. The income multiplier for FCPP was estimated to be 1.4 and the Navajo Mine income multiplier was estimated to be 1.7. This means the total job and income loss was two to three times the direct job and income loss following the downsizing of the FCPP and Navajo Mine operations.

The study also reported that the Navajo Nation would experience a \$9.8 million/year reduction in direct royalties and taxes from the mine, and approximately \$5 million in reduced annual taxes from the FCPP for a total reduction of tribal payments amounting to \$14.8 million per year.

#### **4.2.5 Four Corners Power Plant and Navajo Mine Energy Project Final EIS**

In 2015, the OSMRE completed an EIS on the continued operation of FCPP and Navajo Mine and associated transmission lines. The economic contributions of the FCPP and Navajo Mine were reported in the EIS. The economic impact analysis was also the same study prepared by Evans, James, and Madly in 2013. Therefore, the impacts are like the Northwest New Mexico Economic Assessment and Strategy study described above.

From 2004 to 2013, the Navajo Nation has received an average of \$29.1 million per year in coal royalty payments from the Navajo Mine and an average of \$70 million per year from FCPP lease payments. The study states the shutdown of FCPP Units 1, 2, and 3 are expected to reduce operations at the FCPP and the Navajo Mine by about one-third, which would indicate that royalties, taxes, and fees paid by FCPP and Navajo Mine could be approximately one-third less. Reduced operational activity at the FCPP and Navajo Mine would lead to fewer jobs as well as decreased employment at businesses that provide goods and services to the FCPP, the Navajo Mine, and their employees.

Taxes and fees paid by the FCPP and Navajo Mine are primarily based on production or revenue, both of which have been reduced due to the shutdown of Units 1, 2, and 3. The Navajo Nation has collected approximately \$40 million annually from the Navajo Mine through taxes and royalties. According to the Navajo Nation Tribal Council, this money makes up about one-third of the Navajo Nation's general fund. A reduction in revenue would negatively impact the Navajo Nation public service providers and their ability to provide services to the Navajo Nation's people.

### **4.3 CONCLUSION**

The subsequent loss of existing jobs and income, along with reductions in revenues paid to the Navajo Nation would result in major impacts, given the persistently high unemployment and poverty levels. Tribal revenues support tribal employment and the provision of services on a Navajo Nation-wide basis. The importance of the jobs, income, and revenues is underscored by the lack of any identified or reasonably foreseeable new industrial or commercial development that offers prospects to offset the losses (BOR, 2016).

A reinvented economy on the Navajo Nation must build upon the following opportunities:

- New agricultural markets
- Growth in tourism
- Navajo branding
- Infrastructure investments: \$68 million for water infrastructure projects to support economic development (CAP-12-16), and another \$180 million for water infrastructure (CAP-19-16)
- \$81.7 million for economic development projects (CAP-12-16)
- Current \$1 billion uranium cleanup effort needs support from many Navajo businesses
- \$200+ million of NGS clean up after 2019
- NACHE's workforce training and development program to meet needs for above opportunities

To the extent that people can adjust, they can establish new businesses; find other, more productive work (albeit likely, at least in the short-term, less appealing work in terms of compensation); or increase demand for their current services from other sources or markets. In this way, the job and income impacts will not be as severe as estimated (Highlands, 2017).



# 5 SWOT ANALYSIS

An analysis of the study area’s strengths, weaknesses, opportunities, and threats (SWOT) was conducted as part of the strategy’s development to ensure that there is a clear objective informed by a comprehensive understanding of the region’s capabilities and capacity. The SWOT analysis is summarized below in a matrix form. It is based on a variety of sources including: a focus group with staff from the NNDED’s Regional Business Development Office; discussions with staff from NNDED’s Project Development Office; an online business survey; background research; and ETD’s 23 years of experience working in Navajo Country.

<p><b>Strengths</b></p> <ul style="list-style-type: none"> <li>• Vast land with spectacular scenery</li> <li>• Rich cultural history</li> <li>• Many visitors</li> <li>• Artisans are abundant</li> <li>• Navajo people are friendly</li> <li>• Potential to expand agricultural industry</li> <li>• Large workforce (albeit not necessarily workforce ready)</li> <li>• Business-site leases can be negotiated along with infrastructure costs</li> <li>• Dispute resolution clauses to address issues around the Tribe’s sovereign immunity</li> <li>• NNDED’s Five Year Plan and funding</li> <li>• Available industrial and commercial tracts</li> </ul>	<p><b>Weaknesses</b></p> <ul style="list-style-type: none"> <li>• Sovereign immunity</li> <li>• Dual taxation</li> <li>• Limited land available for economic development</li> <li>• Limited utility infrastructure</li> <li>• Inadequate public safety</li> <li>• Lack of capital</li> <li>• Lack of economic statistics</li> <li>• Lack of economic market feasibility studies</li> <li>• Limited opportunity to build equity</li> <li>• Lack of basic business fundamentals and/or credit</li> <li>• Limited industry/education collaboration</li> <li>• Food is cheaper off Navajo Nation</li> <li>• Remote areas increase infrastructure cost</li> <li>• Politics</li> </ul>
<p><b>Opportunities</b></p> <ul style="list-style-type: none"> <li>• New agricultural markets</li> <li>• Growth of tourism</li> <li>• Navajo brand</li> <li>• Investment for infrastructure:             <ul style="list-style-type: none"> <li>○ \$180 million for water infrastructure</li> <li>○ \$81.7 million for economic development</li> </ul> </li> <li>• \$68 million for water infrastructure projects</li> <li>• \$1 billion uranium cleanup project</li> <li>• \$200+ million of NGS clean up</li> <li>• NACHE’s workforce training and development program</li> </ul>	<p><b>Threats</b></p> <ul style="list-style-type: none"> <li>• Limited land tracts available for economic development and housing to support economic development</li> <li>• Many areas are isolated from railways and airports</li> <li>• Eyesores: Illegal dump sites, over-grazed land, trash along the roads, abandoned and deteriorating buildings</li> <li>• Lack of employment opportunity for children who pursue education</li> <li>• Population is declining</li> <li>• Non-Navajo businesses compete for Navajo business by establishing next to the Navajo Nation border</li> <li>• Unused business sites with developments and improvements are often vandalized</li> <li>• Navajo Nation government inefficiencies</li> </ul>

## 6 STRATEGIC DIRECTION/ACTION PLAN

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With the changing global and regional energy market, there is a need to diversify and enhance the economy and reorient the workforce. A solid economic development strategy for the stakeholders requires an array of goals that support the Nation's diversity, its workforce, and heritage. The strategic approach is threefold as it focuses on activities that can be implemented by the stakeholders (i.e., the Navajo Nation, Navajo chapters, business owners, and entrepreneurs). At the end of this chapter, **Table 9** summarizes the goals, strategies, and the stakeholder(s) responsible for implementing the action steps known as strategies.

### 6.1 GOAL 1. ENHANCE TOURISM

The Navajo Nation is situated in the Grand Circle among the most spectacular places on earth. There is an opportunity to expand hospitality services and traveler related services.

#### 6.1.1 Integrate visitors into the Grand Circle travel patterns

The objective is to funnel visitors through travel routes that can be targeted for future economic development. The strategies below are for business people and entrepreneurs.

Designate Navajo tourism routes. The Grand Circle of National Parks that surround the Nation presents an opportunity to capture business from travelers coming to or crossing through the Nation. The strategy for the Navajo Nation is to promote key traveling routes that highlight visitor destinations and available tourist services on the Nation. These travel routes can be identified in promotional material, which can result in a quality experience for travelers. This will open opportunities for new business in the areas of lodging, food service, arts and crafts, native entertainment, and other hospitality services. **Figure 9** shows an example of proposed tourism routes. The routes will tie into existing scenic byways and highways that are travel routes between national parks.

Develop a smart phone application. With the expansion of technology and the grand expanse of the Nation, individuals can develop a smart phone application that can provide background and specific information on self-guided tours of the Nation. This application not only could highlight points of interest, it could provide guidance in culturally sensitivity areas. It would show various hospitality accommodations and provide Navajo history along the way. It could direct visitors to areas that the Nation wants them to see and would be helpful in preventing visitors from wandering off to protected areas.

#### 6.1.2 Develop a prepared workforce for the tourism industry

The objective is for the current industries and businesses along with the Navajo Nation government to support and collaborate with NACHE in developing technical assistance, training, and resources for tourism-based businesses. CCC has already developed non-degreed programs for tourism, such as Customer Service Skills, Computer Applications, and Starting a Business. Kay Leum of CCC is the coordinator of NACHE. The strategy described below is for business people and entrepreneurs.

Develop a certificate program for employees in the tourism industry. Training can be available for customer service. In addition, the program can train or instruct local Navajos in developing and managing opportunities, such as operating an Airbnb, being a tour guide, and marketing their business.

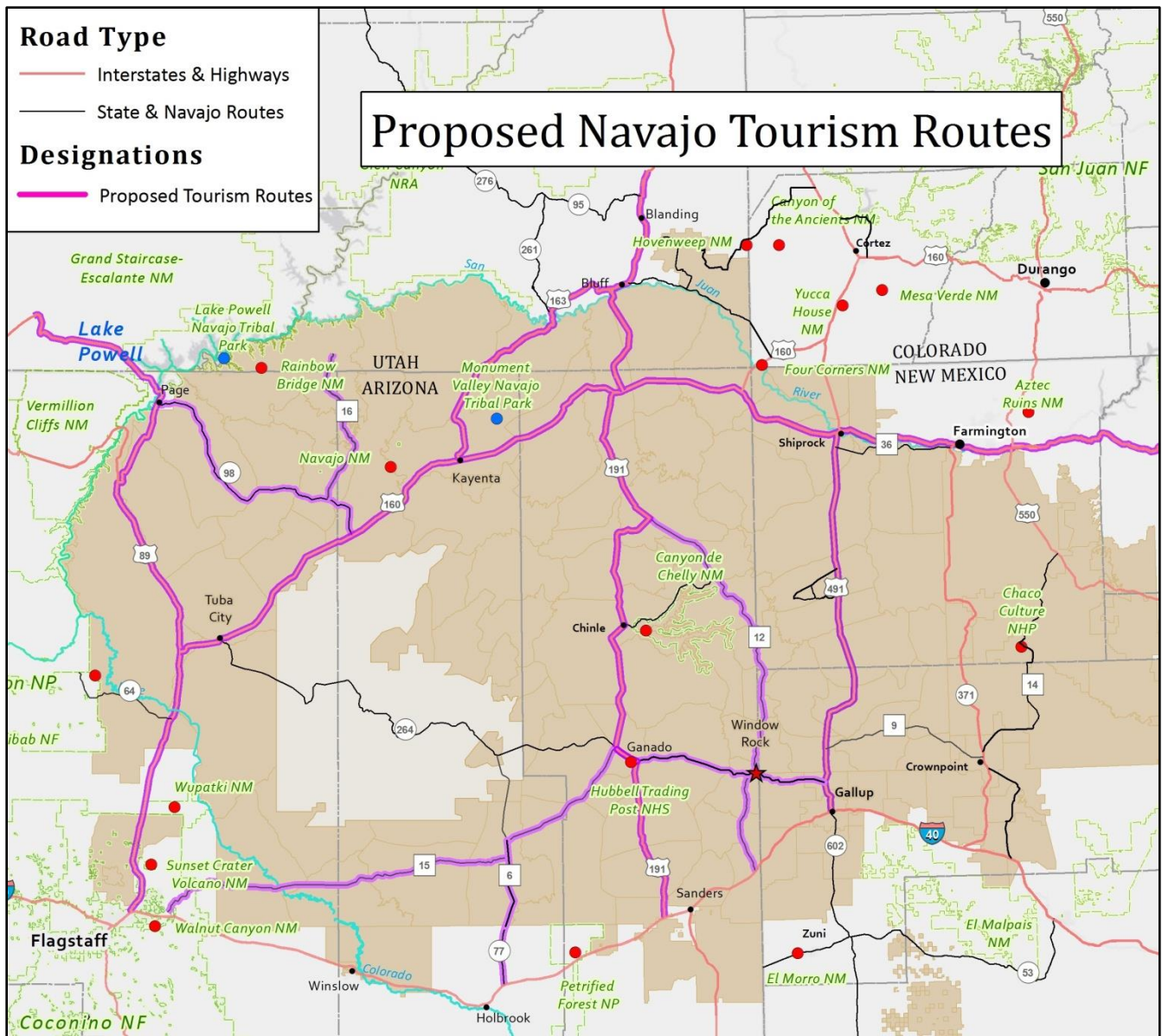


Figure 10. Map showing proposed Navajo tourism routes

### 6.1.3 Form cooperatives that support the region’s tourism industry

The objective is to develop cooperatives to support the tourism industry on the Navajo Nation. Cooperatives are owned and managed jointly by members who share in profits and benefits. The American Indian Alaskan Native Tourism Association (AIANTA) is an example of a cooperative that helps tribes develop, sustain, and grow tourism destinations through technical assistance, training, and resources. The strategies are aimed at business people and entrepreneurs.

Create regional Navajo tourism associations. Navajo tour businesses with common interests need to collaborate and work together for a common purpose or benefit. They should network with other tourism associations such as AIANTA and the Arizona, New Mexico, and Utah state tourism offices.

Market Navajo businesses nationally and internationally. Navajo businesses need to market their products and services to the international market. In 2013, there were 5.2 million international visits to Arizona (Tourism Economics 2013). A cooperative can help to share the cost of marketing.

### 6.1.4 Expand cultural entertainment and artisan opportunities

The objective is to increase the cultural experiences for visitors along tourism routes. Shopping for arts and crafts and cultural activities are among the top reasons people visit Navajo country (Cothran, et al. 2012). The strategies are aimed at businesses and entrepreneurs.

Promote areas for cultural dances and storytelling. Individuals and businesses can enhance the visitor's experience by sharing the Navajo culture through entertainment (dances, storytelling, and food) along tourism routes and areas where there are many visitors. Entertainment can be provided in the evening when it becomes dark, after other venues are closed, and tourists find themselves with nothing to do (Madison, 2018).

Establish food trucks. Food trucks are very popular on the Navajo Nation and across the country. These are mobile restaurants that can provide a cultural experience, and can conveniently cater where the visitors are, such as tribal parks and along established tourism routes.

## 6.2 GOAL 2: EXPAND AGRICULTURE / MODERN WATER USE

### 6.2.1 Introduce modern techniques

The Navajo Nation has a deep history of agriculture, although much of its farming relies on traditional techniques and natural rainfall. The objective is to enhance opportunities for the Navajo people by adopting newer techniques in the farming process, whereby Navajos can obtain higher yields from more focused environments and position themselves to export their agriculture outside the Nation. The strategies are aimed at business people and entrepreneurs.

Introduce modern farming techniques. High tunnel farming is a farming method that allows family farmers to grow crops from late February through late October. The crops can be garden variety such as tomatoes, squash, greens, or herbs.

Invest in high-tech farming methods. Water is one of the great challenges to agriculture on the Nation. By utilizing innovative technologies, such as drip irrigation and high tunnel farming, water-use can be reduced substantially, yet still enable high yield production for the grower. Even filtered tap water can be feasible with a drip irrigation system.



Figure 11. Example of high tunnel farming (from PRAE)

### 6.2.2 Establish an agriculture cooperative and technical assistance program

Agricultural cooperatives have been shown to be effective on tribal lands. The objective is to establish a cooperative on the Navajo Nation like the Pine Ridge Agriculture Economy (PRAE), and to develop a technical assistance program, which would assist farmers and ranchers, provide basic farming business management information, and other essential information required to participate successfully in agricultural programs. The strategies below are aimed at entrepreneurs and educational institutions, or consortiums such as NACHE.

Develop Navajo farming cooperatives. The purpose of the cooperatives would be to: 1) conduct outreach and technical assistance, which encourages and assist farmers and ranchers with farm/ranch

ownership and operation; 2) provide basic farming business management information and other essential agricultural program participation information; 3) reach customer opportunities based on member production; and 4) act as the producer-member agent in aggregation, Navajo branding, sales and distribution of high-value food products to domestic markets.

Create outreach and technical assistance programs. Collaborate with federal and non-federal partners to develop an agricultural training program in the study area to: 1) disseminate information; 2) provide training and technical assistance, including loan assistance for farm equipment, operations, record keeping, and farm production management; and 3) provide interactive workshops, facilitated resource review sessions, regional networking and goal-setting opportunities.

## **6.3 GOAL 3: EXPAND UTILITY INFRASTRUCTURE**

During stakeholder meetings, it was revealed that broadband connectivity, water, and roads are critically needed across the Navajo Nation to support economic development. The communities located south of Black Mesa lack paved roads, not to mention water infrastructure and broadband connectivity. The Navajo Nation needs to identify and support broadband, renewable energy, and water infrastructure projects to create economic opportunities and mitigate economic impacts from a changing energy market. Most of these opportunities require an investment in infrastructure, capital investments, and long-term commitment.

### **6.3.1 Expand fiber optic lines to provide broadband connections**

The objective is to expand fiber optic lines across the entire study area to promote economic growth. Navajo Nation, Navajo chapters, and business people need to collaborate with NTUA on this effort. The commitment of NGS to help communities transition away from coal burning energy can be focused on broadband, and as a mitigation measure to create other opportunities for affected communities.

Organize work groups to expand broadband in various parts of the study area. Currently, Tuba City community members and leaders are working with NTUA to bring fiber optic cable to Tuba City and northward along Highway 89.

Identify funding for full broadband Internet across the study area. The Navajo Nation Council may wish consider appropriating funding from the Permanent Trust Fund interest or from the \$167 million in payments that the tribe will receive over the next 35 years from NGS.

### **6.3.2 Promote renewable energy**

The objective is to promote renewable energy across the study area. Access to the grid is important for renewable energy delivery. The Navajo Nation is an ideal environment in which to develop new forms of energy due to its vast open spaces and sparsely populated landscape. Although clean energy does not produce as many permanent jobs as fossil fuel energy production, the prospect still exists for the Navajo Nation to capitalize on renewables and become an energy-independent entity. The strategies are aimed at Navajo Nation and business people.

Utilize 500 KV space on the transmission grid that will no longer be utilized by NGS. It makes sense to develop renewable energy at NGS where transmission lines are in place and where the conditions allow for energy export.

Provide a clear process for how renewable energy projects are approved. Proponents for renewable energy projects need to be provided a clear process for steps to develop renewable energy on the Navajo Nation. Currently, it seems NTUA can progress on such projects, but others struggle to comprehend/follow a clearly defined renewable energy project development process.



## 6.4 GOAL 4: ENHANCE INFORMATION TECHNOLOGY

As the Nation increases in broadband connectivity, the capacity for digital economic opportunities can bring new jobs to outlying communities.

### 6.4.1 Create technology jobs

This objective is to create more technology jobs on the Navajo Nation by providing training; establishing call centers, data centers, and home-based businesses; and providing access to e-commerce platforms. The strategies below are for business people and entrepreneurs.

Create IT training programs. Individuals with advanced IT training and certificates should enjoy highly favorable employment prospects once broadband is available. IT is one of the fastest growing industries today, and employers tend to seek IT specialists who can combine strong technical skills with good interpersonal and business skills. The Navajo Nation needs to encourage IT training programs through various educational institutions and consortiums, such as the Northern Arizona Consortium for Higher Education.

Establish call centers and data centers. Call centers provide service to clients of many industries including hotel, rental car agencies, credit card companies, and many more. Call centers tend to be remotely placed to make use of underutilized labor; including third world countries, where many off-shore call centers have been criticized in the United States for utilizing employees with poor English-speaking abilities. Areas, and various communities, around the Navajo Nation could prove to be excellent hosts and a good fit in offering locations for these centers, provided they have the digital connectivity through broadband. Unused buildings can be retrofitted for call centers or data centers, which rely on highly secure environments with stable climates and strong digital and utility connectivity.



*Figure 12. Photo of a typical call center operation.*

Promote Navajo goods and services through e-commerce. Individuals and businesses can create jobs and generate income through Internet sales and digital product development. By tapping into this method of retailing, a person can be anywhere and have a successful business. Furthermore, the global economy is being built on digital products. Digital product examples are: software, smart phone applications, web development, and the “Internet of Things” which tend to be products and devices that use Internet connectivity. Navajo Nation individuals have numerous prospects for holding high paying jobs without leaving home.

## 6.5 GOAL 5: ENHANCE NAVAJO GOVERNMENT-INDUSTRY COLLABORATION

Navajo Nation, Navajo chapters’, and the business community’s support of public-private partnerships (PPPs) will help to grow and expand the economy.

### 6.5.1 Create public-private partnerships

PPPs are helping to solve problems globally. Thus, the Navajo Nation might look more closely at PPPs to help solve problems - especially in financially limited times. The strategies are provided below.

Seek opportunities to create PPPs. PPPs between a government agency and private-sector company can be used to finance, build, and operate projects; e.g., public transportation networks, parks and convention centers. Financing a project through a public-private partnership can accelerate project completion or make the project a possibility in the first place (Investopedia, 2018).



Expand infrastructure to support economic development. Infrastructure investment helps raise economic growth rates, offers new economic opportunities, and facilitates investment in human capital (WBG, 2017). For governments seeking to expand infrastructure, the public-private partnership offers an option that lies somewhere between public procurement and privatization. “Infrastructure is difficult for the public sector to get right,” notes the World Bank. “Public-private partnerships can help; they can provide more efficient procurement, focus on consumer satisfaction and life cycle maintenance, and provide new sources of investment.”

Support workforce development programs. Workforce development programs are a way to ramp up partnerships with business and industry. It is becoming more and more obvious that for educational institutions to provide students with the skills they need to succeed, those institutions must have industry and business partners that help them understand the ever-changing skills required by the workforce.

Create incentives for attracting business to the Navajo Nation. There are many types of incentives used by governmental agencies to attract business to their areas. For example, temporary tax abatement is a tactic used by many state governments. Under Arizona’s “net new” grant, an employer creating net new jobs can apply for a grant to receive reimbursement for up to 75% of their eligible training expenses.

### **6.5.2 Secure land and conduct necessary studies**

The objective is for Navajo chapters to take the lead role in getting land secured for economic development. This demands the identification of funds for land withdrawals, market feasibility studies, infrastructure assessments, and master plans. The strategies below are for Navajo chapters:

Allocate money for land withdrawals, market feasibility studies, infrastructure assessments, and master plans. Funding is often limited for some chapters; therefore, the Navajo Nation government and chapters might work to jointly fund efforts to secure land and conduct studies for economic development.

Participate in regional marketing plans and branding. With the broad geography of the Nation, community needs can vary by area. Frequently, a community wants to attract a business, but is lacking certain business requisites. Assisting communities in developing commercial attraction plans that focus on their strengths and available infrastructure can create a stronger focused result. Navajo Beef is an example of a product with an identifiable brand. There are other products where the Navajo brand could be applied, especially for products exported off of the Nation.

Develop community asset inventories. Each chapter should conduct an inventory of its assets, such as workforce abilities, infrastructure, and access to logistics. Completing a community inventory is important for potential business owners

Create land user’s incentives. There should be incentives to land users with valid grazing permits to sign off on land withdrawals for economic development. Perhaps they can be provided a small percentage of the lease agreement payments as an incentive.

Include housing tracts as part of business site leases. There is a need to make land available for housing in order to attract businesses, for the benefit of owners and their employees.

## **6.6 GOAL 6: ENHANCE HOSPITALITY**

Due to the growing tourism sector in the region, the Navajo Nation is in an ideal position to expand its hospitality opportunities. Native people are hospitable by nature and can take advantage of new hospitality opportunities across the Nation.

### **6.6.1 Expand lodging and restaurants**

There are many opportunities to expand hospitality starting with exploration of those, which are the most feasible. Navajo Nation government and chapter collaboration will improve the potential for viable hospitality expansion. The strategies are listed below:

Identify RV park, campground, restaurant, and artisan market sites along proposed tourism routes. Many chapters have identified future commercial sites within their Comprehensive Land Use Plans.

Obtain land withdrawals and conduct studies. Although many chapters have identified future commercial sites within their Comprehensive Land Use Plans, they still need to obtain formal land withdrawals.

Expand Navajo gaming to Antelope Point Marina. Since NNGE successfully has developed other areas on the Navajo Nation, NNGE is poised to develop additional casinos and hotels. They could create a casino resort amidst the tour businesses and future hotels at Antelope Point Marina, for example.

### **6.6.2 Expand arts and craft markets**

The objective is to support Navajo artisans by expanding arts and crafts markets. The strategies below are aimed at entrepreneurs and business people.

Create arts and crafts markets next to Navajo casinos. Placement of said markets near other busy intersections along proposed tourism travel routes will increase customer access.

Improve existing flea markets. There are many makeshift flea markets across the study area. Some are not well developed, even though there are many customers. By investing in the upgrade of these facilities, there exists the prospect for individuals and chapters to earn revenue, collect fees and taxes.

### **6.6.3 Expand hospitality training**

The objective is to focus on expanding hospitality training. The strategies below are for business people and entrepreneurs.

Develop a collaborative between hospitality service providers and educational institutions. Hospitality is much like any other industry in that it requires knowledge and expertise to increase successful outcomes.

Develop a hospitality training program to meet the needs of the study area. NAU and CCC already have hospitality degree and certificate programs.

### **6.6.4 Create online application process for tour guide permits**

The objective is to create a more convenient permit process for tour guides, Airbnb providers, photography guides, and fishing and hunting guides. As more and more tour guide companies are established, the process for obtaining permits needs to become more efficient. One tour guide said it would be helpful if the NNPRD moved their office closer to Lake Powell and Monument Valley tribal parks. A strategic planning session between these groups can lead to the best solutions.

Develop a better working relationship between Navajo tour guides and Navajo Nation Parks and Recreation Department. A friendlier business environment requires the creation and streamlining of the permitting process, collaboration to address park issues, and the cultivation of improved relationships, so that businesses can flourish.

## **6.7 GOAL 7: ENHANCE LIFESTYLE AMENITIES**

There exist broad opportunities for the Navajo Nation government, chapters, and individuals to enhance the Nation's lifestyle amenities in order to attract businesses and workers to the Navajo Nation.

### **6.7.1 Create housing opportunities, hiking and biking trails, etc.**

The objective is to create more housing to support economic development and other lifestyle amenities to attract businesses and workers. The set-aside of housing and commercial tracts will help to achieve these goals. In the present day, more people are seeking to lead healthy, active lifestyles and seek hiking and biking trails within their communities. The strategy is for Navajo Nation government and Navajo chapters to cooperate to install these amenities.

Create incentives for livestock permit holders to give up land for housing and recreation.

### **6.7.2 Enhance public safety**

The objective is to enhance public safety in the study area. Many communities lack any kind of law enforcement presence, and emergency responders have long response time due to the remoteness of the more rural chapters. This strategy will require the Navajo Nation and chapters to work together to increase public safety.

Create additional public safety substations across the study area. Strategically place additional substations that can also house officers.

### **6.7.3 Clean up the landscape**

The objective is to clean up the landscape in the study area. Many areas on the Navajo Nation have unsightly abandoned buildings, trash along the road, junk yards, and illegal dumping. The strategy requires the Navajo Nation and chapters to coordinate Nation and community landscape clean-up efforts.

Create a fund for clean-up projects. Partnering on both funding pursuits and funding set-asides will make the Nation and chapters more competitive in their grant seeking and more financially able to create cleanup project funding streams.

Create a clean-up checklist or process that chapters can follow. Navajo Nation department collaboration; e.g., between the Environmental Protection Agency and Navajo Construction Management Program, will ensure the development of an efficient and effective process.

## **6.8 GOAL 8: REDEVELOPMENT OF THE WORKFORCE**

With the possibility of so many workers being displaced due to the reduction of coal mining, it is imperative that the workforce continues to remain productive.

### **6.8.1 Enhance workforce skills development**

The objective is to increase workforce development in the study area. By having a trained workforce, recruitment of new industries and expansion of existing industries will be enhanced. The leaders on Navajo Nation need to initiate and support collaborative efforts between schools and industry.

Identify a liaison to create collaboration between industries and educational institutions, such as NACHE. There is a need to formally identify a lead agency or group to support the workforce programs that align with the strategies discussed in this report.

### 6.8.2 Support business entrepreneurship programs

The objective is for the Navajo Nation to support business entrepreneurship by providing resources to organizations that provide technical assistance. An example of such a program is Change Labs. Change Labs' target audience includes informed and motivated individuals who are engaged in their communities. Change Labs hosts an annual event on the Navajo Nation that seeks to do the following: provide engaging, hands-on instruction for participants; expose participants to new models for doing business that honors their culture; expose participants to mentors, peers, and role models; and expose participants to innovative use of technology to build communities. The event is a collaborative effort between Catapult Design and the Native American Business Incubator Network (NABIN), in partnership with institutions such as Navajo Technical University, University of New Mexico-Gallup, and Diné College. The strategy is for the Navajo Nation to fund or partially fund these types of programs.

Provide additional resources to organizations that are providing support for entrepreneurship. Most organizations such as NABIN are not for profit, therefore they rely on outside funding.

### 6.8.3 Summary

This report concludes with **Table 9** that provides summary of the goals, objectives, strategies, and the designated stakeholder who can best implement the strategies.

Table 9. Goals and Strategies						
Goals	Objectives	Strategies	Navajo Nation	Navajo Chapters	Business People	Entrepreneurs
Goal 1: Enhance Tourism	Integrate visitors into the Grand Circle travel patterns	Designate Navajo tourism routes			X	X
		Develop smartphone applications			X	X
	Develop a prepared workforce for the tourism industry	Develop a certificate program for employees in the tourism industry	X		X	X
	Form cooperatives that support the region's tourism industry	Create regional Navajo tourism associations.			X	X
		Market Navajo businesses nationally and internationally			X	X
	Expand cultural entertainment and artisan opportunities	Promote areas for cultural dances and storytelling.			X	X
		Establish food trucks			X	X
Goal 2: Expand Agriculture/ Modern Water Use	Introduce modern techniques	Introduce modern farming techniques			X	X
		Invest in high tech farming methods.			X	X
	Establish an agricultural cooperative and technical assistance programs	Develop Navajo farming cooperatives			X	
		Create outreach and technical assistance programs			X	X
	Expand fiber optic lines to provide	Organize work groups to expand broadband in	X	X	X	

<b>Goal 3:</b> Expand Utility Infrastructure	broadband connections	various parts of the study area				
		Appropriate funding for fiber optic expansion.	X	X	X	
	Promote renewable energy	Utilize 500 KV space on the transmission grid that will no longer be utilized by NGS	X		X	
		Provide a clear process for how renewable energy projects are approved	X		X	
<b>Goal 4:</b> Enhance Information Technology	Create technology jobs	Create IT training programs			X	X
		Establish call centers and data centers			X	X
		Promote Navajo goods and services through e-commerce.			X	X
<b>Goal 5:</b> Enhance Navajo Government-Industry Collaboration	Create public- private partnerships (PPPs)	Seek opportunities to create PPPs	X			
		Expand infrastructure to support economic development	X			
		Support workforce development programs	X		X	
		Create incentives for attracting business to the Navajo Nation	X			
	Secure land and conduct necessary studies	Allocate money for land withdrawals, market feasibility studies, infrastructure assessments, and master plans		X		
		Participate in regional marketing plans and branding		X		
		Develop community asset inventories		X		
		Create land user incentives		X		
		Include housing tracts as part of business site lease.		X		
<b>Goal 6:</b> Enhance Hospitality	Expand lodging and restaurants	Identify sites for RV parks, campgrounds, restaurants, and artisan markets along proposed tourism routes	X	X		
		Obtain land withdrawals and conduct studies.	X	X		
		Expand Navajo gaming to Antelope Point Marina	X	X		
	Expand arts and craft markets	Create arts and crafts markets next to Navajo casinos			X	X

		Improve the existing flea markets			X	X
	Expand hospitality training	Develop a collaborative between hospitality service providers and educational institutions			X	X
		Develop hospitality training programs to meet the needs of the study area			X	X
	Create online application process for tour guide permits	Develop a better working relationship between Navajo tour guides and Navajo Nation Parks and Recreation Department	X		X	
<b>Goal 7: Enhance Lifestyle Amenities</b>	Create housing opportunities, hiking and biking trails, etc.	Create incentives for livestock permit holders to give up land for housing and recreation	X	X		
	Enhance Public Safety	Create a substation across the study area	X	X		
	Clean up the landscape	Create a fund for clean-up projects	X	X		
		Create a checklist process for clean-up that chapters can follow	X	X		
<b>Goal 8: Redevelopment of the workforce</b>	Enhance workforce skills development	Identify a liaison to create a collaboration between industry and education institutions, such as NACHE	X			
	Support business entrepreneurship programs	Provide additional resources to organizations that are providing support for entrepreneurship	X			



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# **APPENDICES**

**Appendix A: Public Meeting Outreach Materials**

**Appendix B: Business Community Survey**

**Appendix C: Public Meeting Presentation  
& Notes**

**Appendix D: RBDO Available Business Site Leases  
& Navajo Advantage Industrial Sites**

# **Appendix A**

## **Public Meeting Outreach Materials**

- i. Public Outreach Effort Summary**
- ii. Public Outreach Media Materials**
  - a. Press Release**
  - b. Flyer**
- iii. Newspaper Excerpt from Gallup Independent**
- iv. (2) Online articles from Farmington Daily Times**

## PUBLIC SERVICE ANNOUNCEMENT

**For Immediate Release**

November 27, 2017

Contact: Adrian Dotson  
(928) 779-6032 | [adrian@etd-inc.com](mailto:adrian@etd-inc.com)

# Public Meetings: Navajo Economic Development Strategies

**FLAGSTAFF, Ariz.** – Two public meetings will be held to present emerging economic development strategies for coal-dependent communities on the Navajo Nation adapt to evolving energy markets. Coconino Community College – Page Campus and San Juan College – Farmington, NM will be hosting the public meetings on December 11 and 12. The public input and feedback will help refine the economic development strategies and guide recommendations for realistic implementation.

### **Public Meetings:**

1. Coconino Community College, Page Arizona – December 11th, 1:00 pm to 4:00 pm
2. San Juan College, Farmington, New Mexico – December 12th, 8:00 am to 11:00 am

In recent years, the demand for Navajo coal has declined due to new air quality regulations and inexpensive natural gas. In 2014, Navajo Mine and Four Corners Power Plant reduced the amount of coal and energy they produced. In addition, Kayenta Mine and Navajo Generating Station is expected to close in 2019.

Coal mining and power generation provides direct jobs and income that support economic activity in other sectors. Indirectly, they support goods and services jobs in the region. This includes employees spending their earnings on household goods and services in local communities.

The total economic impact will be severe for communities surrounding these facilities. This project focuses on addressing the following questions:

- ***What can the Navajo Nation do to prepare?***
- ***How can affected communities move forward?***
- ***What are emerging industries that will work for Navajo?***

This project is federally sponsored by the Economic Development Administration's (EDA) Partnership for Opportunity and Workforce and Economic Revitalization (POWER) initiative and is administered the Navajo Nation Division of Economic Development.

For more information contact Adrian Dotson, Project Manager at (928) 779-6032 or [adrian@etd-inc.com](mailto:adrian@etd-inc.com). You can also visit, <https://sites.google.com/etd-inc.com/coalmineclosureeconomicplan> for information, survey and updates.

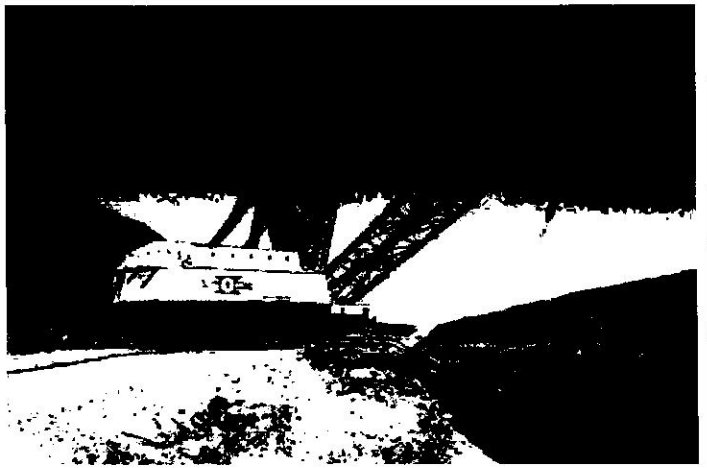
###

# **PUBLIC MEETINGS NAVAJO ECONOMIC DEVELOPMENT STRATEGIES FOR COMMUNITIES AFFECTED BY COAL MINE CLOSURE**

## **Meeting Locations and Dates:**

**Coconino Community College, Page Arizona**  
December 11, 1:00 pm to 4:00 pm

**San Juan College, Farmington New Mexico**  
December 12, 8:00 am to 11:00 am



In response to declining demand for coal due to air quality regulations and inexpensive natural gas, a comprehensive economic development strategy is being developed to identify emerging opportunities specific to communities affected by potential future coal mine closures. Coal mining and power generation provides direct jobs and income that support economic activity in other industry sectors.

The pupopse of the public meetings will be to present the strategies to date and collect public feedback and input. The total economic impact will be severe for communities surrounding coal mines on the Navajo Nation, this project focuses on addressing the following questions:

- *What can the Navajo Nation do to prepare?*
- *How can affected communities move forward?*
- *What are the emerging industries that will work for Navajo?*

This project is sponsored by the Economic Development Administration's (EDA) Partnership for Opportunity and Workforce and Economic Revitalization (POWER) initiative and is administered the Navajo Nation Division of Economic Development.

For more information contact Adrian Dotson, Project Manager at (928) 779-6032 or [adrian@etd-inc.com](mailto:adrian@etd-inc.com).



# December 4, 2017 Gallup Independent



Courtesy photo/Robert Keene

at Exit 16 Sunday because of an accident on I-40. The accident was diverted to Historic Highway 66 in Gallup. This traffic

## Parents: 'There's always hope'

of students who wanted to share a good day with math teacher Mark Lowther. He is open and frank with his students about his recovery from alcohol addiction and has shared that journey with his students.

That year students made 46 cakes and had a small celebration of Lowther's 16 years of sobriety in his classroom. In 2016 the event grew, it had expanded to the gymnasium and included the entire school, and the Los Alamitos Middle School students were brought to hear a

motivational speaker. They also expanded on the number of cakes. The school had their hallways lined with over a dozen tables offering dozens of cakes made by students and the community.

The student organizers are hoping for an even bigger turnout.

Wright openly invites the community to the school at 9 a.m. Tuesday.

The event, she said, is "to remind yourself and friends that they are not alone. It's not a piece of cake but there's always hope."

## to involuntary manslaughter

the complaint, Yazzie by running her over the time Yazzie ran was driving under alcohol.

proceedings, Yazzie a felony information in involuntary manslaughter killing the victim with his vehicle while under the influence of

hol rendered him incapable of exercising clear judgment and a steady hand in operating the vehicle.

At sentencing, Yazzie faces a maximum statutory penalty of eight years in federal prison. A sentencing hearing has yet to be scheduled.

This case was investigated by the Farmington office of the FBI and the Navajo Nation Department of Public Safety.

Assistant U.S. Attorney Novaline D. Wilson is prosecuting the case.

## Honors in prison writing contest

drama writing. Jeffrey currently is incarcerated at the Otero County Prison Facility and serving a 54-year sentence for his 2005 conviction.

Every year, hundreds of inmates from around the country submit poetry, fiction, nonfiction and dramatic works to PEN America's Prison Writing Contest.

Founded in 1971, PEN's prison writing program works to provide inmates with skilled writing teachers and audiences for their work.

and nine great-grandchildren. She was preceded in death by her husband Sam John Sr.; parents Hastiin Bahe and Glenhasbah Bahe; brothers Wilfred Bia, Vivian Bahe, Naswood Bahe and Willie Bahe; and sisters Zonnie Bahe, Mary Y. Teller and Elizabeth Bahe.

Pallbearers will be Adam John, Matthew John, Sam John III, Michael John, Zack Roybal and Amanda John.

The family will receive relatives and friends at noon Tuesday, Dec. 5, 2017, at Grace Navajo Baptist Church.

Cope Memorial is in charge of arrangements.

## Area in brief

### NPL Precinct 2 public meeting

PIÑON, Ariz. — The Navajo Partitioned Lands Precinct 2 public meeting will be from 9-11 a.m. Friday, Dec. 8, at the Piñon Chapter House. Canceled land use permit holders and community members are invited to provide input on the Agricultural Resources and Rangeland Management Plan.

**Information:** Eunice Tso, 928-779-6032 or eunicet@etd-inc.com

### Crownpoint Chapter meeting

CROWNPOINT — Crownpoint Chapter will have a planning meeting at 2 p.m. Tuesday, Dec. 5, at the Crownpoint Chapter House.

### Little League Board Election

WINDOW ROCK, Ariz. — The Diné Nation Little League Board election will be at 5:30 p.m. Wednesday, Nov. 15, at the Window Rock Quality Inn. This is an open invitation meeting for anyone who wishes to get involved as a board member, coach, parent volunteer, umpire or player.

**Information:** 928-309-0215

### Economic development meetings

FARMINGTON — Two public meetings for Navajo economic development strategies will be from 1-4 p.m. Monday, Dec. 11, at the Coconino Community College in Page, Arizona, and 8-11 a.m. Tuesday, Dec. 12, at San Juan College in Farmington. The meetings will present emerging

economic development strategies for coal-dependent communities on the Navajo Nation.

**Information:** Adrian Dotson, 928-779-6032

### Holiday Tour of Homes

GALLUP — The Holiday Tour of Homes will be Sunday, Dec. 10. A meet and greet will be at 5 p.m. at the New Mexico Cancer Center where refreshments will be served. The tour limos and vans will depart at 5:30 p.m. This event is a fundraiser for the Ups and Downs Relay for Life Team of the American Cancer Society. Tickets are \$20 per person and can be purchased at the downtown Pinnacle Bank.

**Information:** Joyce Graves, 863-3075; Linda Shelton, 722-2175

### Arts and crafts festival

LAGUNA — The eighth annual Winter Wonderland Arts and Crafts Festival will be from 10 a.m.-5 p.m. Saturday, Dec. 9, at the Kawaika Center cafeteria and gym lobby of the old Laguna-Acoma High School. Everyone is welcome and admission is free.

**Information:** Tim Johnson, 505-362-3450

### City Council meeting

GRANTS — The Grants City Council will have a regular meeting at 6 p.m. Monday, Dec. 11, at the City Hall Council Chambers. Agendas will be available Friday, Dec. 8, at City Hall. The City Council will consider for adoption an ordinance authorizing the City of Grants to enter a loan agreement.

## CITY WEATHER

### THURSDAY

### FRIDAY

## REGIONAL

	Yesterday	Tomorrow
Aspen	55/25/sh	35/8/s
Colorado Spgs.	67/32/pc	44/21/s
Cortez	61/24/pc	44/9/s
Durango	56/22/pc	42/7/s
Moab	65/35/pc	44/17/s

## TEMP. TRENDS

Actual ■ Average ■ Record ●



# Meeting focuses on tribe's economic future

Noel Lyn Smith, [nsmith@daily-times.com](mailto:nsmith@daily-times.com) Published 6:00 p.m. MT Dec. 10, 2017 | Updated 1:05 p.m. MT Dec. 11, 2017

## *Event planned at San Juan College School of Energy*

FARMINGTON — A public meeting on Tuesday will focus on economic development strategies for communities dependent on coal production on the Navajo Nation.

Input and feedback about the strategies will be collected to help improve the strategies and recommendations for possible implementation, meeting organizers say.

Adrian Dotson, project manager for the study, said the study centers on coal mining, including pending closures and transition in production and the impact to the economy and employment.

Changes include the future closure of the Navajo Generating Station in Page, Ariz., and the reduction in coal production at Navajo Mine, the project's press release states.

"We want anyone who feels they are stakeholders or feel they will be impacted by the closure," Dotson said.

The public meeting will be held from 8 to 11 a.m. in the Merrion Conference Room at San Juan College's School of Energy.

For more information about the meeting, contact Adrian Dotson, project manager, at [adrian@etd-inc.com](mailto:adrian@etd-inc.com).

The study started in April, and the meeting is a step in completing the process, Dotson said.

As part of the study, draft strategies have been developed, and information from those strategies will be presented to the community.

The project is funding by a grant from the U.S. Economic Development Administration's Partnerships for Opportunity and Workforce and Economic Revitalization Initiative, and is administered by the Navajo Nation Division of Economic Development.

The Obama administration initiative was created to invest federal economic and work force development resources in communities and regions impacted by change in the coal industry, its website states.

A public meeting will be held on Monday in Page, Ariz., to discuss the closure of the Navajo Generating Station.

Last month, the U.S. Department of the Interior issued the final approval for the lease to keep the generating station in operation until December 2019, according to a press release from the Salt River Project.

*Noel Lyn Smith covers the Navajo Nation for The Daily Times. She can be reached at 505-564-4636 or by email at [nsmith@daily-times.com](mailto:nsmith@daily-times.com).*

Link to Article: <http://www.daily-times.com/story/news/local/navajo-nation/2017/12/11/meeting-focuses-tribes-economic-future/936477001/>

# Study presents economic possibilities for Navajo Nation

Noel Lyn Smith, [nsmith@daily-times.com](mailto:nsmith@daily-times.com) Published 7:00 p.m. MT Dec. 13, 2017

## *Area around mines, power plants focus of document*

FARMINGTON — A study by a Flagstaff, Ariz., group examines the possibilities of creating a viable economic future for the Navajo Nation in response to evolving energy markets.

Eunice Tso, owner and president of ETD Inc. in Flagstaff, said the study is the result of a collaborative effort and addresses goals and strategies to guide recommendations for implementation.

The study, which was shared during a meeting on Tuesday at San Juan College's School of Energy, focuses on a 50-mile radius around the Navajo Generating Station, the Kayenta Mine, the Navajo Mine and the Four Corners Power Plant.

Each area is impacted by changes in energy production, Tso said, adding that the study is one of many that focuses on the economic shift for the tribe.

The study was funded by a grant from the U.S. Economic Development Administration's Partnerships for Opportunity and Workforce and Economic Revitalization Initiative, and was administered by the Navajo Nation Division of Economic Development.

The federal grant is designed to help coal-dependent communities adapt to evolving energy markets, Tso said.

During the meeting, Tso and John Stigmon, president and CEO of the Economic Collaborative of Northern Arizona in Flagstaff, presented eight economic development strategies outlined in the study.

Those strategies include enhancing tourism, expanding agriculture with modern water techniques, continuing to develop outlets for information technology, enhancing hospitality and expanding utility infrastructure.

"One of the things that we feel passionate about in our project is, we don't want plain cut-and-paste strategies," Tso said adding part of the focus is discovering ways to implement ideas.

Stigmon said one way the tribe could enhance tourism is by taking advantage of its location near multiple national parks. One of the study's recommendations touts highways as scenic byways.

Another way to build on that idea is to create mobile apps to attract tourists to locations on the Navajo Nation, as well as conducting workshops to help residents learn about hospitality opportunities, he said.

The collaboration also resulted in a list of strengths and weaknesses in regard to economic development on the reservation. The list of strengths includes the nation's rich cultural history and the potential to increase its agricultural industry, while the weaknesses included inadequate public safety and a lack of housing for workers.

Available housing needs to go hand in hand with economic development, Tso said.

There were several comments made by attendees throughout the meeting. Some people voiced concerns about the challenges faced by the nation's chapters when trying to navigate the tribal government system, while others cited the difficulty of obtaining funding for projects and maintaining a balance between tradition and the promotion of economic growth.

*Noel Lyn Smith covers the Navajo Nation for The Daily Times. She can be reached at 505-564-4636 or by email at [nsmith@daily-times.com](mailto:nsmith@daily-times.com).*

Link to Article: <http://www.daily-times.com/story/news/local/navajo-nation/2017/12/14/study-presents-economic-possibilities-navajo-nation/950349001/>

# **APPENDIX B**

## **Business Community Survey**

**i. Survey Results Discussion**

**ii. Survey Results Presentation (PowerPoint)**

**iii. Survey Results: Open-ended answers**

**iv. Email sent to Navajo Business Owners**



# **Navajo Nation Economic Development Strategies: Business Community Survey Results Discussion**

## **Introduction**

ETD, Inc. is under contract with the Navajo Nation Division of Economic Development to help coal-dependent Navajo communities adapt to evolving energy markets by developing a Comprehensive Economic Development Strategy (CEDS). The process for developing economic development strategies involves stakeholder participation through public meetings, focus groups, and surveys. The purpose of this survey was to present a variety of business development mechanisms to Navajo business owners and measure which mechanisms are beneficial and harmful to conducting business on the Navajo Nation.

## **Methods**

ETD, Inc. developed a 21-question online survey that targeted Navajo business owners. The survey was sent via email and through targeted advertising via Facebook. A list of 108 emails was gathered from businesses with emails listed on the Navajo Business Opportunity Act Source List of Certified Businesses (2017). A mass email with a link to the survey was sent on September 12, 2017 by Adrian Dotson, Outreach Specialist, ETD, Inc (adrian@etd-inc.com). 42 (or 38.9%) of these email addresses did not work (i.e. email responded with a delivery error message). Targeted advertisements were completed through the ETD, Inc. Facebook page. ETD, Inc. paid \$50.00 for two (2) advertisements that targeted areas on the Navajo Nation, Navajo Nation border towns (e.g. Flagstaff, Page, and Farmington), and major metropolitan areas in Arizona, New Mexico, and Utah (e.g. Phoenix, Salt Lake City). The first advertisement ran from September 19 - September 26, 2017, and the second advertisement ran from October 3 - October 31, 2017. The survey was officially closed on December 21, 2017. A total of 27 responses were collected over this period.

## **Discussion**

The survey sample shows that mainly small businesses in their first five years of business, both on and off the reservation, which provide professional services participated in the business community survey. Such businesses are seeing a stable or increasing demand for products or services, though some are unsure of their demand. Most of these businesses are not experiencing recruitment problems and are seeing a decrease in unfilled positions within their business. Infrastructure generally meets the demand of the survey participants, but one that stood out was broadband; 44.4% indicated that broadband infrastructure does not meet the needs of their business. Participants indicated that the top two policies/business issues posing the greatest challenges to business owners operating/growing their business on the reservation are the *Navajo Nation Business Opportunity Act* and the *Navajo Nation Business Site Leasing Act*.

Over half of those surveyed saw some level of difficulty in starting their business. The most challenging areas for businesses include staffing and qualified employees, issues with tribal regulations, competitive wages, and seasonal fluctuations. However, most participants had somewhat to no challenges in several other areas. When starting their business, participants needed the most help with business planning and business taxes, and to a lesser degree, financial literacy, payroll and employment taxes, and recordkeeping.

Among potential employees on the Navajo Nation, most participating businesses found moderate, substantial, or extreme deficiency in customer service skills and communicating effectively. They found a substantial deficiency in information analysis and critical thinking skills as well. There were several skill areas with no deficiency, such as work ethic, dependability/attendance, math and reading comprehension skills, using technology and tools effectively, and some even found no deficiencies in customer service, critical thinking, and information analysis. Participants found the top challenges for potential employees finding work on the Navajo Nation are the lack of opportunities, lack of housing, and low wages/salaries.

## **Limitations**

The survey sample size is relatively small. Out of 108 Navajo Preference businesses, only 66 emails went through to these businesses. With a sample size of 27, ETD only captured 40.9% of possible responses. ETD did not follow up with these businesses to get a proper email through telephone. There is low representation among bigger businesses (20+ employees) and among businesses in construction, tourism, retail, service, arts and crafts, and other industries. Because of the online nature of the survey and the lack of groundtruthing, many businesses that are not connected to the Internet were unintentionally excluded from the survey. There also may just be a large small business/professional service provider presence on the Navajo Nation.


## **Conclusions & Recommendations**

The survey is representative of small businesses that provide professional services both on and off the reservation. Most of these businesses are seeing a stable or increasing demand for their products and/or services. Broadband infrastructure is the main utility that currently does not meet business needs. The top two policies/business issues posing the greatest challenge to business operators in operating and growing their business are the *Navajo Nation Business Opportunity Act* and the *Navajo Nation Business Site Leasing Act*. While most people had somewhat to no challenging areas starting their business, the greatest challenges for people were staffing and (finding) qualified employees, issues with tribal regulations, competitive wages, and seasonal fluctuations. Among potential employees on the Navajo Nation, most participating businesses found moderate, substantial, or extreme deficiency in customer service skills and communicating effectively. Participants found the top challenges for potential employees finding work on the Navajo Nation are the lack of opportunities, lack of housing, and low wages/salaries.

For future studies, ETD suggests that the studies/surveys diversify the types of business and use different means of sampling. For businesses that are not connected to the Internet, call them on their main telephone line to see if they would participate in the survey. Other means of reaching out can be accomplished through groundtruthing service and direct outreach to tourism-related businesses who may not always be at a computer.

## Business Survey Results

By,



## Survey Methods

- Survey conducted **online** using Google Forms
- Purpose:** To engage Navajo business owners doing business on Navajo Nation
- Solicited responses via email on September 12, 2017
  - Emails collected from Navajo-owned businesses on the *Navajo Business Opportunity Act Source List of Certified Navajo Businesses 2017*
- Promoted survey via Facebook
  - Promotion Period:** Sept. 19 – Sept. 26, 2017; Oct. 3 – Oct. 31, 2017
  - Promotion Cost:** \$50.00
  - Targeted communities**
    - Cities and towns in the Navajo Nation
    - Navajo Nation border towns (e.g. Flagstaff, Farmington, Page)
    - Major metropolitan areas in Arizona, New Mexico, and Utah (e.g. Phoenix, Albuquerque, Salt Lake City)

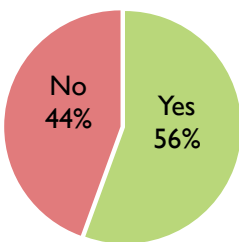
## Survey Methods: Summary

- Total responses collected (n) = 27**
- Total survey period = September 12 – December 21, 2017**
- 21 questions total - mix of multiple choice, open-ended, and rating-based questions.

Section A

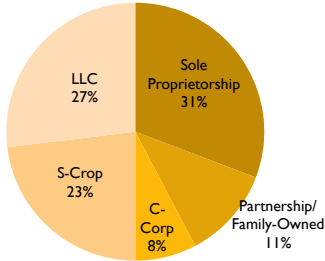
## ABOUT YOUR BUSINESS

### Question 1: Is your business located on the Navajo Nation?



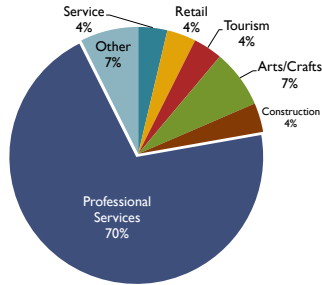
Response	Percentage
Yes	56%
No	44%

### Question 2: What type of organization is your business?

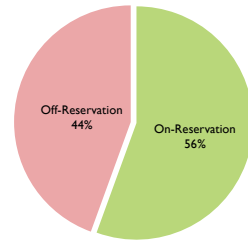


Organization Type	Percentage
Sole Proprietorship	31%
Partnership/Family-Owned	11%
C-Corp	8%
S-Crop	23%
LLC	27%

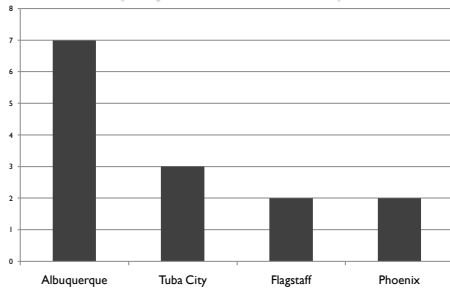
**Question 3: What is the primary industry for your business?**



**Question 4: In what community is your business located?**



**In what community is your business located? (Top communities)**



On-Reservation Communities

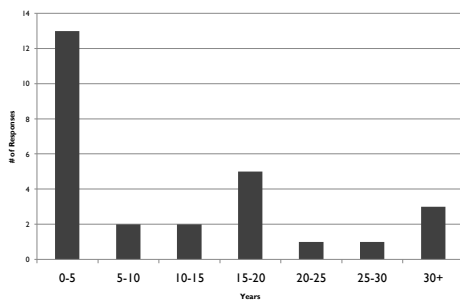
- Cameron,AZ
- Chinle,AZ
- Hardrock,AZ
- Huerfano,NM
- Kayenta,AZ
- Pinon,AZ
- Sheep Springs,NM
- Tolani Lake,AZ
- Upper Fruitland,NM
- Window Rock,AZ/NM

Off-Reservation Communities

- Fort Smith,AR

**Minor Communities**

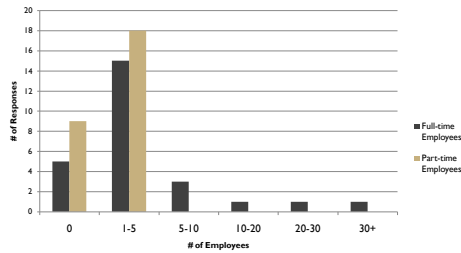
**Question 5: How many years has your business been in operation?**



Section B

**EMPLOYEES**

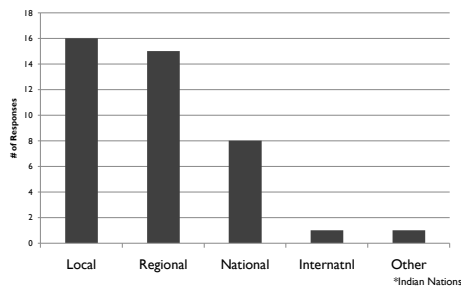
**Question 5 & 6:** How many full-time employees do you have? How many part-time employees do you have?



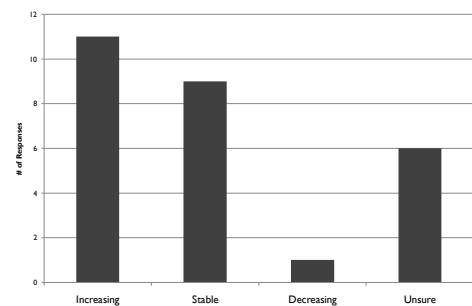
Section C

## ABOUT YOUR MARKET

**Question 7:** What are your business's primary markets or sphere of activity?



**Question 8:** Which best describes the demand for your products or services?



**Question 9:** Why is the demand for your products/services increasing, stable, decreasing, or unsure?

**Increasing:**

- Marketing
- Word-of-mouth
- Economic improvements
- Trusted product
- Access to capital
- Market trends
- Market niche

**Decreasing:**

- Decrease in federal spending

**Stable:**

- Desire to be part-time
- No marketing
- Dependent on federal budget

### Question 9: Continued

• **Unsure:**

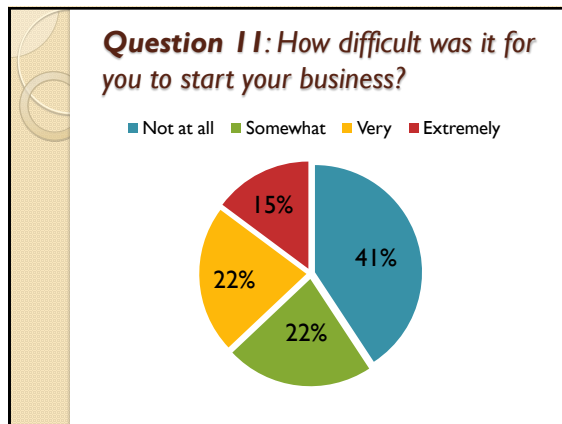
- Challenging market
- Service is misunderstood, undervalued
- Business is unknown
- Inefficient shipping (*slow and expensive*)
- Political environment
- Losing bids to off-reservation companies



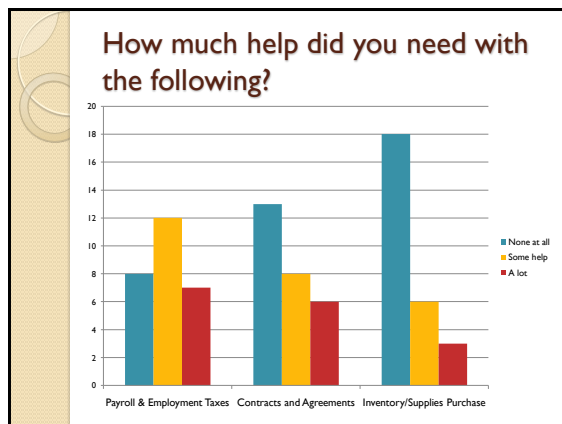
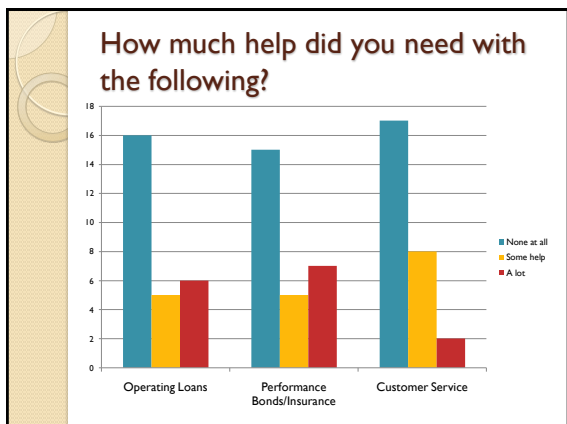
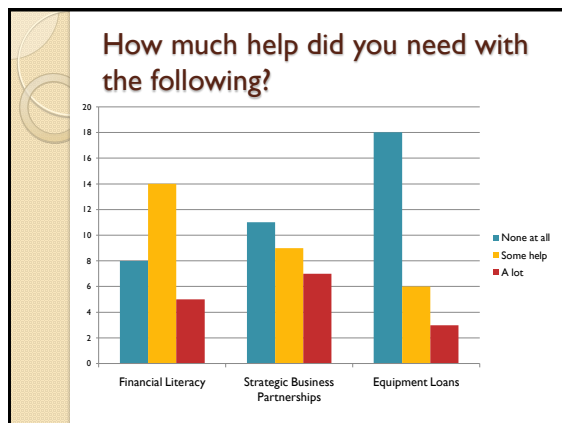


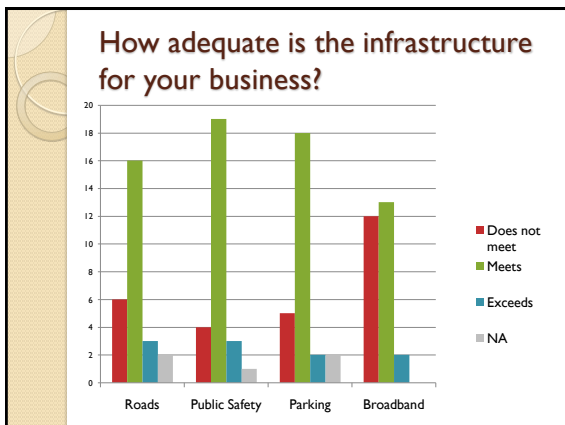
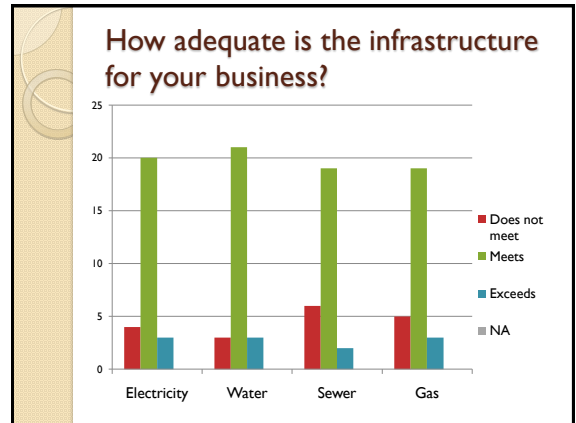
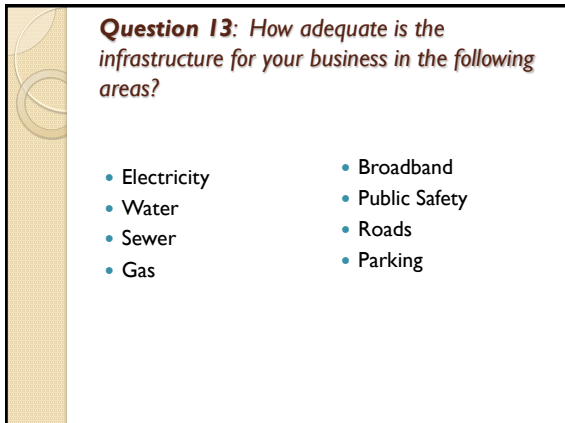
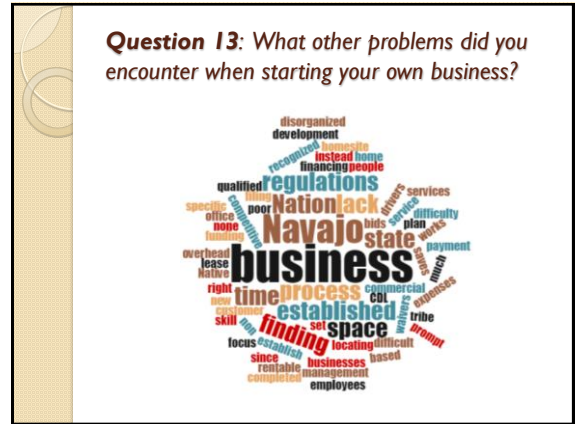
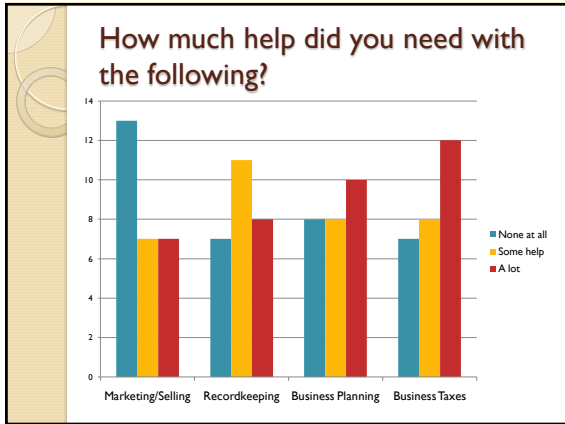
Section D

# STARTING YOUR BUSINESS



- Question 12: Before starting your business or during start-up, how much help did you need with the following?**
- a. Financial Literacy
  - b. Strategic Business Partnerships
  - c. Equipment Loans
  - d. Operating Loans
  - e. Performance Bonds/Insurance
  - f. Customer Service
  - g. Payroll & Employment Taxes
  - h. Contracts and Agreements
  - i. Inventory/Supplies Purchase
  - j. Marketing/Selling
  - k. Recordkeeping
  - l. Business Planning
  - m. Business Taxes

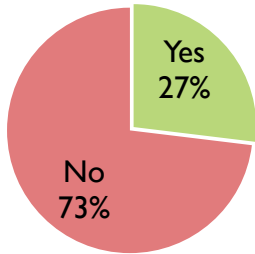




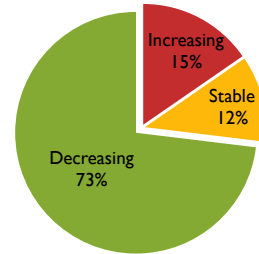
Section E

# HUMAN RESOURCES

**Question 14:** Is your business experiencing recruitment problems for employee positions and/or skills?



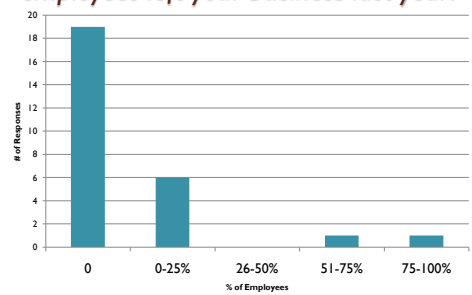
**Question 15:** Which describes the number of unfilled positions in your business?



**Question 16:** List the top 3 skill areas that your business needs to succeed.



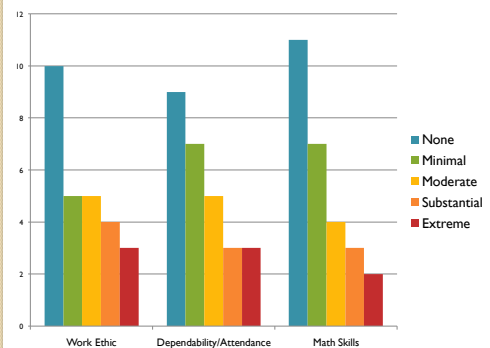
**Question 17:** How many of your employees left your business last year?

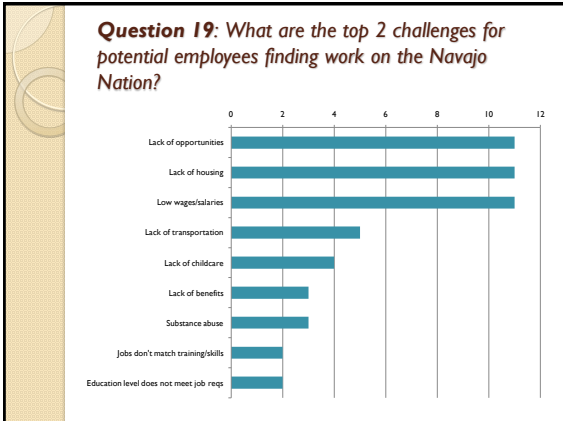
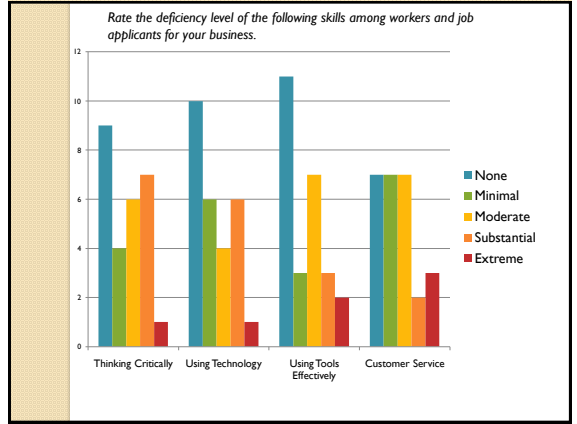
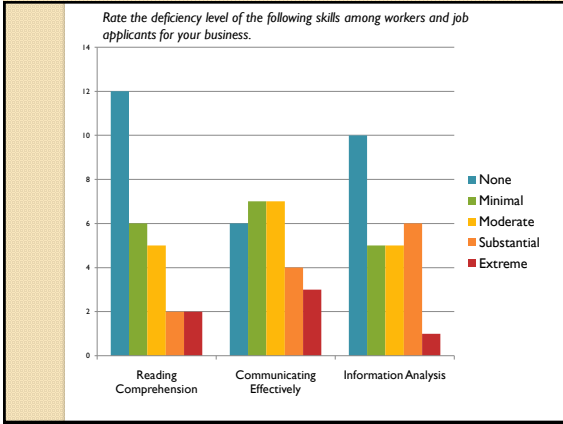


**Question 18:** Rate the deficiency level of the following skills among workers and job applicants for your business.

- a. Work Ethic
- b. Dependability/Attendance
- c. Math skills
- d. Reading Comprehension
- e. Communicating Effectively
- f. Information Analysis
- g. Thinking Critically
- h. Using Technology
- i. Using Tools Effectively
- j. Customer Service

Rate the deficiency level of the following skills among workers and job applicants for your business.

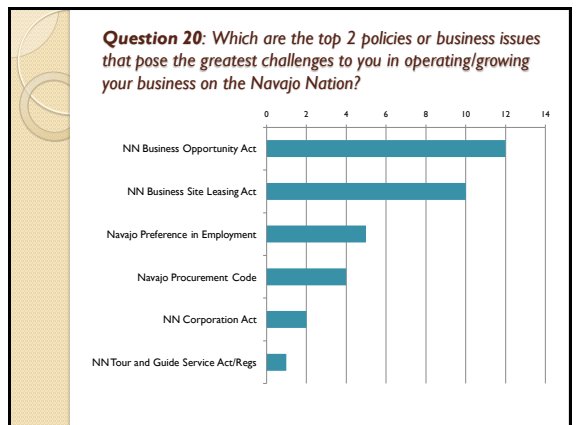




- Question 19:** What are the top 2 challenges for potential employees finding work on the Navajo Nation? (Other answers)
- Health/Disability
  - Criminal record
  - Unmotivated employees
  - Bureaucracy
  - Employers not hiring the best candidates for jobs
  - Tribal regulations (cost)
  - Employers valuing education over talent

Section F

# POLICIES AND REGULATIONS



**Question 20:** Which are the top 2 policies or business issues posing the greatest challenges to you in operating/growing your business on the Navajo Nation? (**Other answers**)

- Navajo Nation using non-Navajo firms
- Assuming Navajo-owned firms don't have the capacity for work
- Lack of business sites
- RBDO ineffective, lacks customer service
- Labor laws
- Nepotism
- Laziness

**Question 21:** If you could change just one policy or action doing business with the Navajo Nation, what would that be?



# **Navajo Nation Economic Development Strategy: Business Community Survey**

## **Open-Ended Answers**

### **Question 9: Why is the demand for your products or services increasing, stable, decreasing, or unsure?**

Use and rely on word of mouth advertisement; experience and word of mouth advertising by past clients; we offer a superior product; trend of technology and security; type of service is often misunderstood and not viewed as critical due to clients not being aware of what we do; more people have heard about it; decrease in Federal spending; few voices in the space of native entrepreneurship; access to capital; word of mouth; marketing; desire to remain part time; slow and expensive shipping making it difficult to keep product on the shelf; cash flow issues; marketing; the state of political environment; socioeconomic; more work all other; national economy seems to have improved; not many customers know about our business; not advertising; dependent on the federal budget; non-business related demand on my time; Native (Navajo) Woman owned: Consultants/Project Managers with an Integrated service model augmenting or developing Risk Management and HR concepts and strategies for existing (or non-existent) Tribal Government or Enterprise administrative departments; good market and low inventory.

### **Question 13: What other problems did you encounter when starting your business?**

The lack of rentable office space; I am home based since the new homesite lease regulations were established; this saves on overhead expenses and works for my business; state and Navajo Nation regulations; having time to focus on business development; too much BS from the tribe; prompt payment after services are completed; difficulty finding other Native employees with the specific skill set; disorganized process; poor customer service in the filing process; locating commercial space; competitive bids; financing; being recognized as a business; difficult to establish under Navajo Nation; established with state instead, waivers for non Navajo businesses; none; finding the right people who are qualified; business plan; time management; CDL drivers; lack of funding.

### **Question 16: List the top (3) skill areas that your business needs to succeed.**

Literacy; tech literate; communication skills; architecture; interior design; drafting; accountability; security; timely service; experience with industry we are in; knowledge; skills; experience; program management; design; writing; ethics; motivation; communication; timely payments from customers/clients (A/R); reliable internet; reliable transportation; business strategy; marketing/sales; taxes; degrees in anthropology; history; GIS; and other related fields; marketing; website building; equipment needs; cash flow; management training; qualified staff; marketing; location; infrastructure; enforcement of Navajo Preference; management portfolio for business loan; overall business plan to include two or three very proficient support staff; high-tech machines for faster production; technology; experience; mobility; marketing; production; income; loyalty; commitment; have fun; construction welder; operator; certified and experienced electricians; engineers; response; communication; contract opportunity announcements; competence; expertise; innate desire to build Nations and diverse tribal economies; marketing; lead generation; finalized deals.

**Question 19: What are the top (2) challenges for potential employees finding work on the Navajo Nation? (Other answers)**

People here are not motivated; bureaucracy; tribal job description seems to be critical of exactly meeting its detail and often don't hire people who could be good for the position; tribal government regulations (costs); policies need to encourage seeking out and hiring talent, then experience, followed by education - not the other way around; utilize Navajo Nation owned businesses.

**Question 20: Which are the top (2) policies or business issues pose the greatest challenges to you in operating/growing your business on the Navajo Nation? (Other answers)**

Labor laws; I don't think we are really challenged; utilizing firms off reservation and assumption that Navajo owned firms lack the capability of non Navajo firms; lack of business sites; RBDO ineffective; unknown; nepotism; foreign business bias; Navajo Parks and Recreations treat of eviction; laziness; yet to explore opportunities on Navajo Nation, but it is in our plan for 2018.

**Question 21: If you could change just one policy or action doing business with the NN, what would that be?**

Renewal of annual business license from 1 year to 3 years; business site leasing; equal opportunities for everyone; providing more opportunities in our sector and not sole sourcing and/or utilizing non Navajo owned firms; micro loans; create local banks on the Navajo Nation; more infrastructure; create a Navajo resellers license; enforce Navajo Preference in employment; streamline process; acceptability of other business from outside NN; better customer service at RBDO; restrict NN Council from acting on Navajo Preference waiver; financial accounting and payments by NN should be improved; less regulation on start up businesses for the first year; due dates for applications and fees are different across the board; enforcing policy; the whole business opportunity act; enforcement; TBD.





Adrian Dotson &lt;adrian@etd-inc.com&gt;

## Business Community Survey for Economic Development Strategies

45 messages

Adrian Dotson &lt;adrian@etd-inc.com&gt;

Tue, Sep 12, 2017 at 10:08 AM

To: Eunice Tso &lt;eunicet@etd-inc.com&gt;

Bcc: sale2@advertisingideas.com, allchemaxllc@gmail.com, info@canyonjeeptours.com, artie\_san70@yahoo.com, rhernandez@atekec.com, kristina@avalonaccounting.com, ayanikahllc@gmail.com, fadams@iamthebiz.com, barnseptic@gmail.com, bbegaye@outlook.com, max@bighorseengineers.com, jbitsui@bitcocorp.com, Andrew Singer <andrew@blackrockmanagementllc.com>, bowlingshippingcenter@yahoo.com, clarinaboyd@gmail.com, lestersecatero@yahoo.com, carrizoenvironmental@gmail.com, cacgic@citlink.net, chiefburgers@gmail.com, jerrisonjumbo@yahoo.com, cleansweepervices@outlook.com, her.fricke@akana.us, jefftsosie@yahoo.com, dbsigns03@gmail.com, david@dsloanarchitects.com, ndnsunn@yahoo.com, lemont\_yazzie@excite.com, dineresources@hotmail.com, neildamon132@hotmail.com, verd\_blkgt\_4468@q.com, dinetahdoo@yahoo.com, Dyron Murphy <dmurphy@dm-architects.com>, John Dodge <dodgeenvironmental@yahoo.com>, miket@emi-nm.com, shana@encompassarch.com, rebelrezkids@gmail.com, Eunice Tso <eunicet@etd-inc.com>, Kim Kanuho <kkanuho@fourthworldldg.com>, hrrygorman627@yahoo.com, riveraantonina@gmail.com, greenfiretechllc@gmail.com, roybdempsey@gmail.com, info@hayiiika.com, helpinghand-inc@hotmail.com, gpolacca@yahoo.com, hsucco@yahoo.com, hpebenny@gmail.com, daspaa@iinaba.com, elmermurray14@gmail.com, tbegay@ids-a.com, atul5545@hotmail.com, info@ibridgec.com, tirvine@idstudio-arch.com, terra@childersarchitect.com, wanda@jjclacs.com, info@srarchinc.com, juniperfence@gmail.com, travis@jw2architects.com, tchavez@keresnm.com, heyahdevelopment@gmail.com, info@lamcorporation.com, joe\_doris07@yahoo.com, smccabe@mccabecpa.com, admin@mcelhaneystructural.com, mjpshaw@mclawfirm.com, hl.msbs@outlook.com, renillesb@gmail.com, james\_nez@yahoo.com, nmnahc@aol.com, thomasto@nativebuilders.net, kgwhitejr@suddenlink.net, laura.durand@nativemoon.co, penny@nrnci.com, Darryl Multine <dmultine@navajoprde.com>, kialo.winters@gmail.com, northerngrapplers2016@gmail.com, kquintana@qspeceng.com, reconoil@gmail.com, nez.sherlynn@yahoo.com, vanessa.roanhorse@gmail.com, keithk@rockgap.com, rockspring@sisna.com, juanbetoni@msn.com, dannybarney@sacredmountainmedical.com, shawnreed@srsreed.com, shellytrucking@gmail.com, thedeel39@yahoo.com, pslim09@gmail.com, sloan@sloan.net, tomferguson9times@live.com, mpeacock@swbdc.com, southwestfurn@aol.com, fbegay@live.com, mabel@spottedhorseis.net, info@terra4orm.com, alvinthompson@gmail.com, Lavina Lamone <lavina.lamone@tiisyatoh.com>, adavis@tildenmccoy.com, totsohnihr@aol.com, trprockaz@gmail.com, toppswell@yahoo.com, rt66tpn@yahoo.com, ljbegay@tpbcs.com, info@vrm-enviro.com, darryl8626@yahoo.com, mmalloy@whpacific.com, wrwms@frontiernet.net, tanderson@zasksolutions.com

Dear Navajo Business Owner:

ETD Inc. is **inviting you to participate in a survey to help understand what type of opportunities and struggles you experience in starting and operating your business**. Also, we would like to know what kinds of assistance you need to maintain or grow your business. We will consider your responses in the development of goals, objectives, and strategies for economic growth on the Nation. We will not use your name or company name in the report.

ETD, Inc. is preparing Comprehensive Economic Development Strategies (CEDs) for areas affected by coal mine closures on the Navajo Nation under a contract with the Nation's Division of Economic Development. Our project involves gathering primary and secondary data. Secondary data includes regional economic studies, current Navajo Executive and Legislative strategies, and 60 Navajo Chapter land use plans. Our primary data will stem from focus groups and a questionnaire survey for Navajo businesses on the reservation.

**An online survey will be sent to your email based on the Navajo Nation's Business Registry.** By responding to the survey, you will be entered in a drawing for a home-site archaeological survey. We will also share the survey results with you. The survey will be emailed to you on September 14, 2017. If you have any questions, please email me Adrian Dotson, Outreach Specialist, at [adrian@etd-inc.com](mailto:adrian@etd-inc.com). You may also reach me at (928) 779-6032.

Thank you for your participation.

--

**Adrian Dotson, Outreach Specialist**

ETD Inc.


2101 North 4th Street, Suite 201

Flagstaff, AZ 86004

Office: (928) 779-6032

Cell: (928) 255-2559

[www.etd-inc.com](http://www.etd-inc.com)

 **Business Community Survey for Economic Development.pdf**  
77K

Mail Delivery Subsystem &lt;mailer-daemon@googlemail.com&gt;

Tue, Sep 12, 2017 at 10:08 AM

To: adrian@etd-inc.com

# **APPENDIX C**

## **Public Meeting Presentation & Notes**

**i. Public Meeting Presentation (PowerPoint)**

**ii. Public Meeting Notes**

**iii. Public Meeting Sign-In Sheets**



**COMPREHENSIVE ECONOMIC  
DEVELOPMENT STRATEGIES  
FOR AREAS AFFECTED BY COAL MINE  
CLOSURE**

Public Meetings Presentation

ETD Inc. and  
Economic Collaborative of  
Northern Arizona (ECONA)  
December 11 & 12, 2107

## INTRODUCTION

### The Team

- ETD Inc. And Economic Collaborative of Northern Arizona (ECoNA)

### The Project

- Paid by the Navajo Nation Division of Economic Development under a U.S. Dept. of Commerce POWER Grant
- The Power Grant is meant to help coal dependent communities adapt to evolving energy markets.
- A CEDS is a strategically-driving process for the development of a regional economic development plan. It is the result of a regionally-owned planning process designed to build capacity and guide the economic prosperity and resiliency of an area or region (US EDA 2017)
- This CEDS contains goals and strategies that can be immediately implemented; the planning range is five years
- The regional focus is a 50-mile radius around Kayenta Mine/NGS and Navajo Mine/FCPP.
- Stakeholders are the Navajo Nation Government, Navajo Chapters, entrepreneurs, and aspiring entrepreneurs.

## BUILDING UPON:

Numerous Regional Economic Impact Studies such as EIS Navajo Generating Station-Kayenta Mine Complex **and** EIS Four Corners Power Plant and Navajo Mine

Business Online Survey

Public Meeting Listening Sessions regarding NGS Feb – May 2017

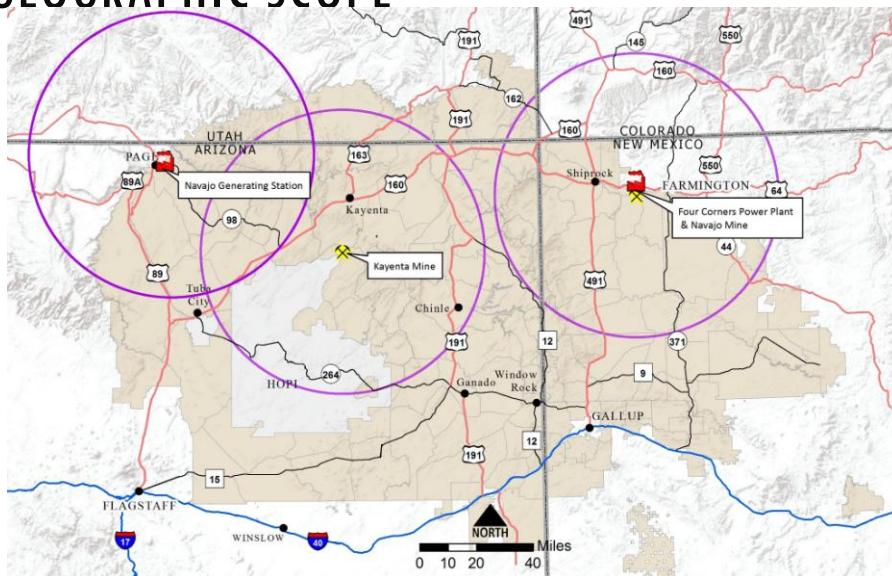
Numerous CEDS: Past Navajo CEDS, County CEDS, Four Corners Regional CEDs,

2017 Economic Road Map – Navajo Nation

Alternative energy studies such as *2012 Navajo Generating Station and Clean-Energy Alternatives: Options for Renewables*

RBDO Focus Group

## GEOGRAPHIC SCOPE

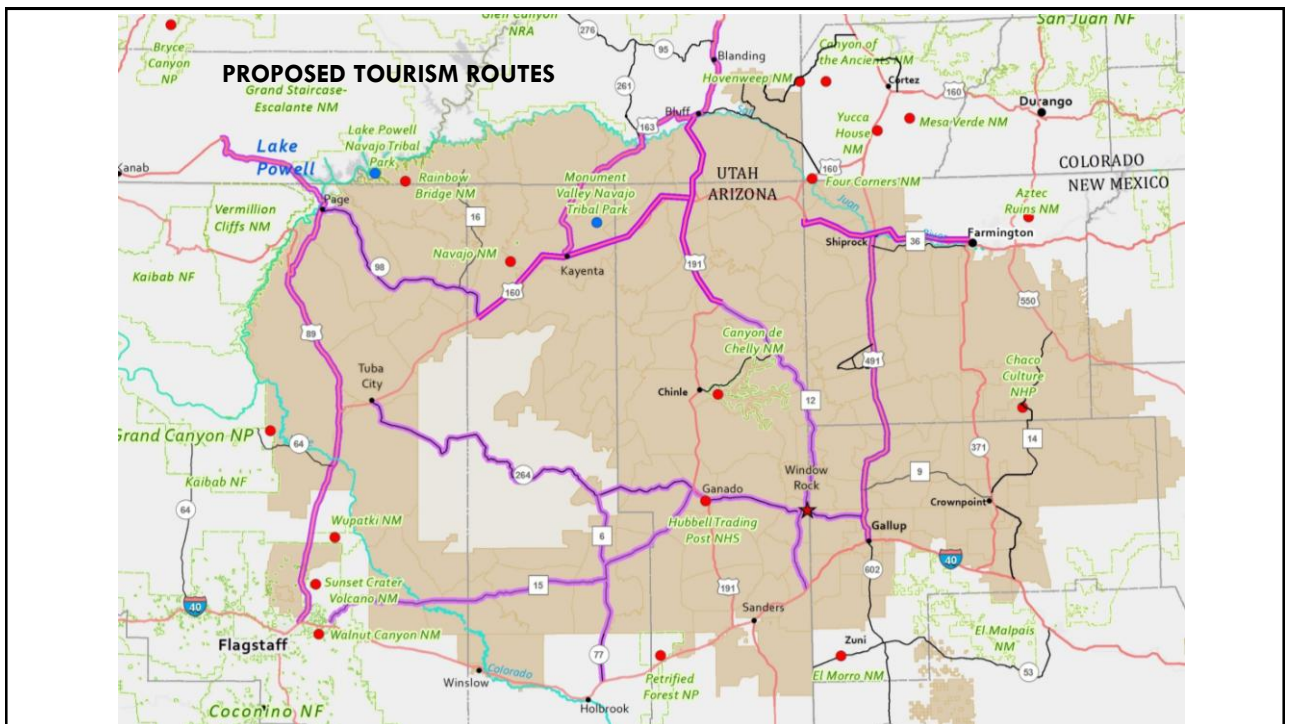
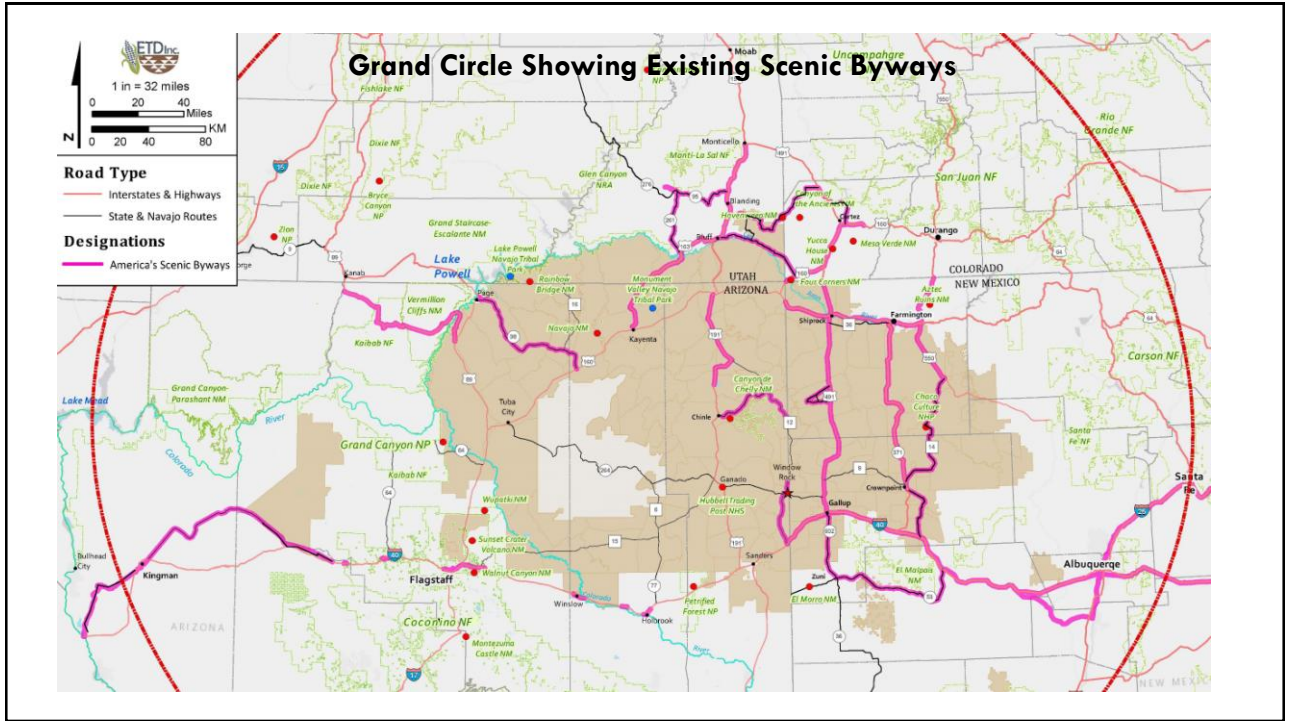


# ECONOMIC DEVELOPMENT STRATEGIES

1. Enhance Tourism
2. Expand Agriculture with Modern Water Use
3. Provide Information Technology
4. Create Public-Private Partnerships
5. Expand Hospitality
6. Expand Utility Infrastructure
7. Expand Lifestyle Amenities
8. Expand Workforce Development

## 1. ENHANCE TOURISM

- **Integrate Visitors into the Grand Circle travel patterns**
  - Establish key visitor routes and promote these routes for tourism businesses
  - Develop smart phone application, highlights attractions and hospitality.
  - Develop hospitality workshops – “How to set up Airbnb” “How to set up tours/hiking guide business”
- **Form tourism cooperatives such as:**
  - American Indian Alaskan Native Tourism Association
- **Market Navajo Tourism Around the World**
- **Artisan Opportunities**
  - Share culture with visitors
  - Artisan cooperatives to expand sales and leverage buying power





## 2. EXPAND AGRICULTURE WITH MODERN WATER USE

### Introduce modern techniques

- High tunnel farming – extended growing periods and cost effective
- Modern water use – drip irrigation
- Water source is important



### Establish Technical Assistance

- Example: Intertribal Agricultural Council
- USDA extension services

### Establish Agriculture Cooperatives

- Sells products for farmers (example: branded Navajo)
- Helps determine market needs (organic, non-GMO)

### Agriculture as an export business – a place to sell higher production

### Grazing cooperatives for expanded production

- Example: New Lands Navajo Beef program

## 3. PROVIDE INFORMATION TECHNOLOGY

### Broadband connectivity is important

- Identify current and future access for communities

### Technology Job Opportunities

- E-Commerce Examples: E-Bay, Amazon,
- Business websites developed by community members for commerce



### Call Centers

- Local jobs
- Call centers –The company can bring equipment and training
- Most spaces can be retrofitted

### Digital Product Development (easily homebased)

- Software

- Smart Phone Applications
- Website Development

### Information Technology Development (technical assistance)

- Training available through vocational training and higher educational institutions
- Example: Northern Arizona Consortium for Higher Education

### Data Centers

- Companies seek remote stable areas
- Can provide lease fees and tax revenues for Nation



# 4. CREATE PUBLIC-PRIVATE PARTNERSHIPS

## Navajo Nation

- Business site lease should be simplified and standardized
- Create incentives such as temporary reduced lease fees and tax abatement
- Identify areas on Navajo ready for development and market
  - Example: Navajo Advantage Industrial Parks and Economic Development Areas (map)
  - Create a grant program for chapters to create master plans and market feasibility studies for commercial tracts
- Eliminate double taxation
- Create Infrastructure development cost sharing Program
- Waive sovereign immunity for foreign industry use (example: Gila River and Salt River)
- Be willing to be flexible on lease terms to fit the need of specific industry

## Local Communities

- Create incentives for attracting new businesses and industries
- Technical assistance for individual community inventory of strengths and weaknesses
  - Roads
  - Utilities
  - Land
  - Taxation
  - Workforce
  - Other
- Create incentives for land users to give up land for economic development
- Participate in regional marketing plans for business attraction

- Example checklist for all withdrawn Commercial Tracts

Land withdrawal:

- Environmental Assessment
- Legal Survey
- Land users consent
- Chapter Resolution

Infrastructure Assess.

- Water/WW
- Power
- Access
- Fiber optic

Market Studies

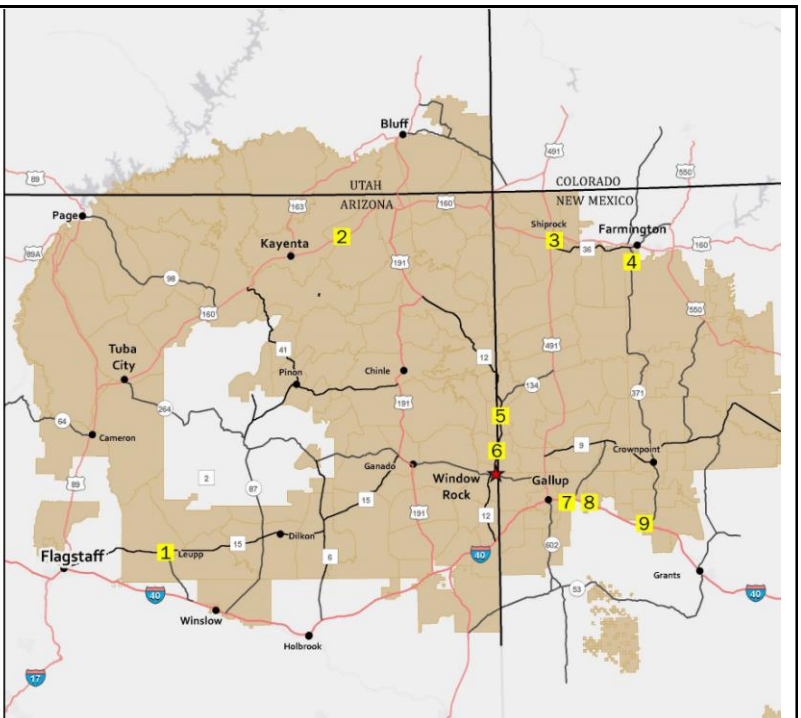
Other Studies

- Geotech

### Navajo Advantage Industrial Parks and Economic Development Areas

- 1 Leupp Industrial Park
- 2 Dennehotso Development Site
- 3 Shiprock Industrial Park & Ayani Neez Industrial Building
- 4 NAPI Industrial Park & Lot 18 (Available)
- 5 NFPI Industrial Park
- 6 Ft. Defiance Industrial Park
- 7 Church Rock Industrial Park & Industrial Building
- 8 Shush Be Toh Development Site
- 9 Thoreau Development Site

Industrial Park Source: Navajo Nation Dept. of Economic Development, Project Development Dept.



## 5. ENHANCE HOSPITALITY

### Expand and expedite hospitality opportunities

- RV Parks/Camp Grounds
- Truck Stops
- Airbnb, Lyft, etc.
- Restaurants

### Explore opportunities adjacent to established gaming facilities

- Arts and Crafts Markets
- Family Entertainment
- Variable hospitality opportunities
- Truck Stops/RV Parks

## 6. EXPAND UTILITY INFRASTRUCTURE

### Explore opportunities

- Broadband Fiber optic
- Alternative smart power
- Explore businesses for Water, Wastewater Treatment Plants, Solid Waste, and Recyclables

### Example: Solid Waste Management Landfill on Navajo

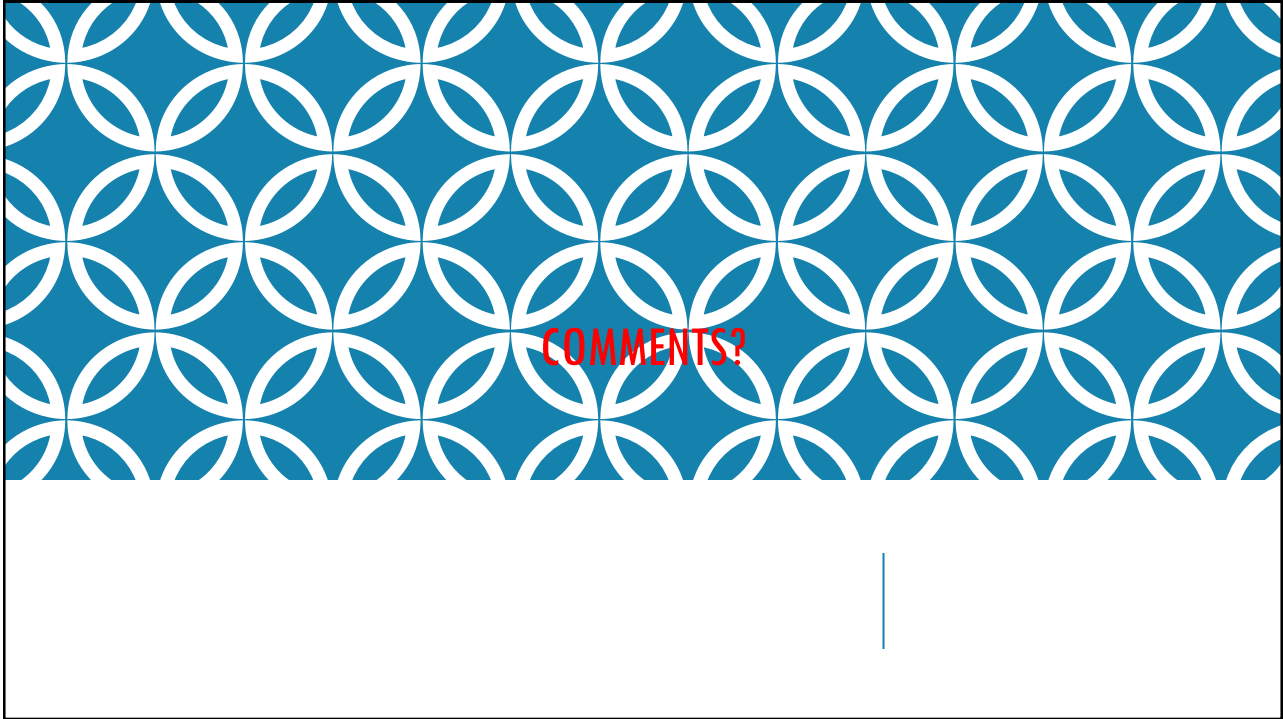
- Creates Jobs and Income
- Helps to address illegal dumping
- Waste transportation cost savings

## 7. ENHANCE LIFESTYLE AMENITIES TO ATTRACT BUSINESSES AND WORKERS

- Ensure opportunities for housing and infrastructure
- Create recreation centers, hiking/biking trails, etc.
- Promote local retail – basic goods and services
- Enhance public safety

## 8. EXPAND WORKFORCE DEVELOPMENT

- Retrain the Navajo Workforce for New Opportunities
  - Examples:
    - \$1 Billion for Uranium Cleanup Project
    - 174 Million NGS Cleanup
- Support industry and education partnerships
  - Schedule meetings on regular basis
  - Identify Training facilities
  - Develop appropriate curriculums
  - Conduct job fairs
- Promote Entrepreneurship and business ownership training
  - Example Program: Change Labs (build on what's working)



# CEDS for Areas Affected by Coal Mine Closures on the Navajo Nation

## Meeting Notes

*December 11, 2017 at Coconino Community College, Page Campus, 1:00 pm - 4:00 pm*

*December 12, 2017 at San Juan College, School of Energy, 8:00 am - 11:00 am*

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December 11, 2017 at Coconino Community College, Page Campus

### Introduction

[no comment]

### SWOT Analysis

- **Challenge: Inadequate public safety**
- **Comment:** Statistics recently published on the Navajo Times regarding inadequate public safety. Responding to situations can be daunting for tribal police, but okay for the sheriff, due to the low number of tribal police per person on Navajo Nation.

### Goal: Enhance Tourism

- **Proposed Tourism Routes**
  - **Comment:** Who are you proposing these routes to?
  - **Comment:** No one is promoting tourism on Navajo.
- **Comment:** A 1990s Arizona Commerce Study shows the number one reason people from all over the world come to the Southwest is to see how Indians live. The latest Arizona Commerce Study says the number one reason tourists come to the Southwest is to see Native Entertainment.
- **Comment:** (Kaibeto Chapter Service Coordinator) At the Chapter-level, we are pro-business, but grazing permit holders are holding us back.
- **Comment:** We need to convince our leaders that we need to provide more opportunities to start-up businesses, not government-owned enterprises.

### Goal: Expand Agriculture

- **Comment:** Are there any opportunities for the Navajo Beef Program on Navajo Partitioned Lands (NPL)?
- **Comment:** Regarding agriculture, there are water limitations in certain areas on the Nation, e.g. Coppermine. Water rights are tied up in the Page/Coppermine area from NGS.
- **Comment:** Regarding raising livestock and grazing permits...

- Grazing vs. Other Uses: Grazing permit holders see livestock raising as a way-of-life due to lack of economic development. This attitude will persist until there is more viable economic development.
- Navajo Beef. Navajo cows fed on the Navajo rangeland are Navajo Beef up until they go to a feedlot. Beef/Mutton raised on Navajo is truly organic - feedlots are not.
- Water. There is a lack of water for agriculture and other activities. We need more water.
- **John Stigmon**: How long does it take for you to get a steer to full weight?
  - 6-7 months; sold at age 9 months
  - Cows are sold after 10+ years
- **John Stigmon**: Who do you sell your livestock to?
  - Near Holbrook along I-40

### **Goal: Information Technology**

- **Comment**: Kaibeto Chapter is waiting for broadband; there is a need for data.
- **Comment**: Everyone has smartphones. We should have manufacturing for smartphone parts and components to support what is already out there.
- **Comment**: Window Rock needs to be aware of these opportunities and not let politics get in the way.
- **Comment**: Every time there is an election, [the politicians] run on economic development.
- **John Stigmon**: Salt River Pima Maricopa Indian Community (SRPMIC) has harnessed economic development and figured out how to make sovereign immunity work for them.
  - **Comment**: But SRPMIC has infrastructure; Navajo Nation doesn't. SRPMIC is smaller and Navajo Nation has more bureaucracy (and selfish politicians).
- **Comment**: Kaibeto Chapter got a land withdrawal; now it is only a matter of time working with the Tribe so Kaibeto can have its own Township.

### **Goal: Public-Private Partnerships**

- **Comment**: [Regarding Navajo Advantage Sites] There is nothing in Western Agency. Why is there no office in charge of this information?
- **Comment**: Define *industrial* (i.e. **not** mining).
- **Comment**: Dual-taxation on non-Navajos... They get around this by having 51% Native-owned firms. Money is still going off-reservation.
- **Comment**: Kaibeto has an industrial park.
- **Comment**: Not enough people at the Chapter-level to do everything they want to do. We need to let our leaders know that we need help!
- **Comment**: According to the 2000-2010 census, over 50% of Navajos live off of the Navajo Nation. This is due to lack of economic development. [I] made a recommendation to Joe Shirley, Ben Shelley, and the current President while they were in office.  
Recommendation: Invite these Navajos back to the Nation for a conference for

prospective business owners to give constructive criticism to Navajo Nation leadership on the business site leasing process.

- **Comment:** The Navajo Nation border is like a wall. There is a brain drain on Navajo Nation.

### **Goal: Enhance Hospitality**

- **Comment:** (President of LeChee Chapter) There was a meeting in April with the City of Page, National Park Service (NPS), and LeChee Chapter regarding the Horseshoe Bend area. City of Page and NPS informed LeChee of their plans for the area north of the Navajo Nation border at Horseshoe Bend.
  - LeChee also has plans for the area south of the boundary at Horseshoe Bend.
  - NPS and City of Page told LeChee that they hope they conserve the area and limit development there.
  - LeChee has been contacted by businesses that want to develop here, but the lack of infrastructure scares away prospective business.
- **Comment:** LeChee also suggested RV Park, Campgrounds, and Truck Stops in their Chapter Land Use Plan (CLUP).
  - Window Rock told LeChee that tourists don't come to see RV Parks and Campgrounds.
  - LeChee needs to master plan Antelope Point Marina and Horseshoe Bend. LeChee was told "Think Big."
  - LeChee CLUP is not complete -- CLUP Committee has been reformed to update CLUP.
- **Comment:** Kaibeto is working with Arizona State University (ASU) to do a geotechnical map of the Chapter.
- **Comment:** A regional plan is a good idea.
- **Comment:** Community members need to get involved; they have good ideas.

### **Goal: Improve Infrastructure**

- **Comment:** Mechanical and Structural engineers on Navajo Nation are saying that landfills cannot be done on Navajo Nation.
- **Comment:** Tselani Chapter Engineering Technician has made plans for the Chapter.
- **Comment:** Navajo Nation has not heard from community about broadband, fiber optic, etc. Some stuff is already out there, but we need to bring back engineers and planners to implement new infrastructure.

### **Goal: Enhance Lifestyles**

[no comments]

### **Goal: Workforce Development**

- **Comment:** There is free training out there that people are not aware of.
- **Comment:** People want jobs, but they don't want to go back to school.



- **Comment:** The less we do, the more problems are created. This stems from leadership issues. We need to use this CEDS to promote positive projects and partnerships in this impoverished area. Leaders and the government need to help with funding. The CEDS will justify the cost.

### **Percy Deal - Small Presentation**

- Percy Deal is from a community called “Big Mountain” in the Hardrock area. (NPL).
- There was a road moratorium in NPL after the 1974 Navajo-Hopi Land Settlement Act.
- Seven communities in NPL are actively meeting to prepare for the Kayenta Mine closure.
- Water is the main problem -- there is no water in the Black Mesa and Big Mountain areas. People who live here must haul water.
- A study by Navajo Nation in 2000 indicates:
  - Navajo people use 12,000 acre-feet of water per year.
  - Navajo Generating Station (NGS) uses 34,000 acre-feet of water per year.
  - Kayenta Mine, Four Corners Power Plant (FCPP), Navajo Mine, and others use 20-30 times more water than the Navajo people use.
  - Low water use by Navajo people is due to lack of economic development.
- Water developments have been planned and technical information is ready, but they need to talk with the Bureau of Reclamation.
- Two important aspects that will help Navajo Nation recover and transition away from coal:
  - Water (not surface water; N-Aquifer groundwater)
    - Peabody is depleting the N-Aquifer
    - Water is sacred/Water is life.
  - Roads
    - No paved roads that connect in NPL - all paved roads lead to a dead end.
- Highways 89, 160, and State Route 98 carry over 1 million visitors per year. We need to capture this, but we need resources and technical assistance.

### **Kay Leum, Coconino Community College (CCC) - Small Presentation**

- CCC is partnering with NAU, Dine College, and Navajo Technical University
- The purpose of the partnership is to make it work for Navajo.
  - They identified programs that are already in place to initiate the partnership. These programs will be available at all universities and credits will transfer.
  - There are possibilities for technology-focused degrees.
  - They want to hold Go-To-Work workshops based on community needs (from how to use a smartphone to how to use computers - whatever the community needs)
  - Added training to support and enhance careers - requires employer support
    - Customer Service Certificate
    - Apartment Maintenance Certificate (can be used for hotels!)
    - 8-day Outdoor Education Program for Teachers
    - Week-long crash course in Geology

- “Get the Scoop” -- New courses in January to accommodate students that don't live in Page; e.g. they will travel to Page every 2 weeks, most of the course is online.
- Scholarships for Spring 2018

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December 12, 2017 at San Juan College, School of Energy

### **Introduction**

[no comment]

### **Goal: Enhance Tourism**

[no comments]

### **Goal: Expand Agriculture**

- **Comment:** What is the percentage of places that have enough water to do drip irrigation?
  - **John Stigmon:** Must be conservative with water use and must be done in a controlled environment -- can use tap water vs. surface water. Expands the places we can grow.
- **Comment:** Man wanted to start a hiking business on his grazing area. However, a portion of his grazing area would need to be converted to a business site lease. Because he would have to renew the business site lease every 25 years and lose it after 75 years, he walked away from that prospect.
- **Comment:** This goal revolves around having access to water. What are we doing with the NGS water? What is the status of this? Salt River Project (SRP) says the water rights of NGS are up to the State of Arizona, not the Tribe. Are you advocating for acquiring this water?
- **Comment:** It is a 165-step process for a Native American to start a business on the Navajo Nation. Conversely, it is a 4-step process for an existing off-reservation business to establish on the Navajo Nation.

### **SWOT Analysis**

[no comment]

### **Goal: Information Technology**

- **Comment:** This goal is good in terms of industry. In terms of Navajo Nation Internet connection, and the Navajo Nation in general, what is the scalability and timeframe for this? 1 year? 5 years? 25 years? 50 years?
  - **John Stigmon:** These are recommendations. It will take political initiative and NTUA.

- **Comment:** You are coming from an economic development/prosperity background (using terms like "business," "development," "laws," and "legislation"), but the Navajo people are spiritual. Have you considered the spiritual/traditional side of business?
- **Comment:** You mentioned three (3) tiers: Navajo Nation, Chapter, and Individual tiers. The Navajo Nation has its own ambitions not involving Chapters or individuals.
  - Why did Navajo Nation purchase land in Colorado?
  - Why are they investing \$20 million in the Twin Arrows Travel Center if Twin Arrows was a failed venture?
- **Comment:** (Former Upper Fruitland Chapter President) Upper Fruitland Chapter has 87 acres near Flowing Water Casino for development.
  - This kept getting put aside by Navajo Nation and never came to fruition.
  - This area was prime location for business -- then they went on to invest in Twin Arrows. What a waste.
  - Navajo Nation does not care about Chapter developments. The solution is private development, not government enterprises.
- **Comment:** This is a constructive criticism. What you are presenting is a top-down model. Opportunities on the Nation are very complex. The spiritual aspect is a big part, and it is fundamental for solutions on the Nation. This is a democracy, but the lack of life experience renders people unable to participate. There is no land ownership (no power). Why are grazing permits so difficult to deal with? It comes from the history of prosperity.
  - Before the livestock reduction, there were 1 million sheep.
  - Grazing permits are the only real property ownership people have on Navajo Nation. People who own land have power. This needs to be resolved by the people.
- **Comment:** There needs to be a Master Plan made by Navajos dealing with Navajo issues with real solutions. There are no answers to complex difficulties and challenges -- means this plan will not work. Six (6) Chapters came together to address Economic Development - called the "Six SCO".
  - It begins at the community level. Empower people to become entrepreneurs and community leaders, then they learn how to develop real solutions.
  - Our concepts will not become reality until some entrepreneurs take initiative.
- **Comment:** I like the direction of this. We need to build capacity at the Chapter level and build the ability to advocate for the people. How do Chapters promote their people?
  - Incorporate the promotion of **regionalism**.
  - We can't do this by ourselves - NTUA still needs to work with outside companies to build broadband infrastructure.
  - Look at opportunities to build needed infrastructure and strategize development on areas on Navajo Nation. Build on and off Navajo Nation partnerships with tribes and non-tribes. The Hopis, Utes, and Laguna (Pueblo) are also facing these issues.
- **Comment:** (Retired judge with Indian Grassroots.org) This is the same approach that the Farmington people did for Shiprock. There was a fundamental misunderstanding behind the culture/way-of-life. Navajo people want traditionalism (e.g. artisan co-ops,

hogans), but there are a lot of laws hindering the Navajo vision. The Navajo Nation government is modeled after the US. People can't have businesses on their homesite lease -- this is hindering entrepreneurship.

- **Comment:** (Jack Little) Lead a community effort to bring Google Fiber to Farmington. Google Fiber started in Kansas -- now 34 cities have broadband. Not only are there connections nearby, we are in position to get high-speed Internet. NTUA has \$150 million to bring Internet to Chapter houses.
- **Comment:** (Worked at Navajo Nation Telecom Regulatory Commission [NNTRC]) \$400-\$500 million was spent to improve infrastructure. NNTRC just regulated this activity. Most broadband on the Navajo Nation is wireless, but there is some fiber and microwave. A lot of Chapters stepped forward to get broadband for their communities without the tribe (e.g. Tuba City and Shiprock).
  - Example: Tuba City approached the Commission. Commission said they would approve this work if the Chapter worked with Window Rock. Tuba City eventually got fiber optic internet. Now they are talking about upgrading this line.
  - Example: Shiprock completed a Master Plan. There was only one Internet provider in Shiprock, and they wanted to bring another one in. Commission approved the work on the condition that Shiprock worked with Window Rock... and became a success.
  - Master Planning is key to success. Master Plan empowers Chapters!
- **Comment:** Timing is also key. USDA-RD is pushing broadband development in rural communities. Lots of funding for broadband infrastructure from USDA-RD. To get this money, infrastructure must be planned and specific (not general). Do what Shiprock and Tuba City did and leapfrog NTUA.

### **Goal: Public-Private Partnerships**

[no comments]

### **Goal: Enhance Hospitality**

- **Comment:** AirBnBs break the homesite lease law/illegal. You need a permit. Are you encouraging illegal activity?
- **Comment:** Regarding artisans and co-ops -- there is interest. One example is a group of women who want to have an artisan co-op and use one woman's homesite lease as the headquarters and gallery, but no additional business developments or signage are allowed.
  - Co-ops bring in tourists and create a market.
  - Co-op needs to have a permanent location.
  - Co-ops can have issues with land users and Chapters.
- **Comment:** Most successful artisans are off-Navajo Nation.
- **Comment:** (Ashley with Public Land Solutions) PLS helps coal-dependent communities transition away from coal/extraction to recreation/quality-of-life ventures. Do you incorporate this? (Answer: Yes...one of the later goals).

### **Goal: Expand Infrastructure**

- **Comment:** USDA-RD has money for water, wastewater, and solid waste infrastructure. [I] get calls weekly from Chapter officials that have this need and want to apply for grants. However, Chapters are not legal political entities that can get grants - Navajo Nation is the legal entity. NTUA is also a legal entity, but the NTUA accounting system is not compatible with USDA-RD computer systems. Navajo Nation needs to assert its sovereignty to choose a proper accounting system and make the system work for them.
  - Eunice: Why can't USDA-RD work for Navajo Nation, not the other way around?
  - Navajo Nation Executive Branch, USDA-RD, and NTUA need to come together and work it out. Chapters need to come together and apply political pressure in Window Rock. The Six SCO teaches people how to select projects, get funding, and carry out projects. It is an empowerment mechanism.
  - Local Governance Act is fine, until the sovereignty issue. Things still need to go through Navajo Nation DOJ and things become bureaucratic. Six SCO recognizes this and teaches people how to make it work for their community.

### **Goal: Enhance Lifestyles**

[no comment]

### **Goal: Workforce Development**

- **Comment:** We need to measure our investments and how much of that sticks on Navajo Nation.
- **Comment:** (Former Upper Fruitland Chapter President) Liked the presentation, but it still needs to address:
  - Sovereign immunity
  - Cultural sensitivity starting a business
  - Equity
- **Comment:** (Professional Engineer, 35+ years experience With Exxon-Mobile) Liked the presentation, but at the end of the day, there needs to be focus on changing the 25 CFR. Tribes are the most regulated entities because of 25 CFR.
- **Comment:** Navajo General Leasing Act gives leeway away from 25 CFR, but it is more complicated and modeled after 25 CFR! Federal government is not loaning money (equity) and putting it on the backs of the people.
- **Comment:** Only 10% of this plan will be accomplished with 25 CFR in place.
- **Comment:** Why are you only meeting at [Page and Farmington]? They are not on Navajo Nation. There are a lot of comments in the Navajo communities.
  - Community comments:
  - A lot of proposals and plans in Window Rock are collecting dust.
  - Keep transmission lines and use solar panels to sell to California.
  - Make solar panels here on Navajo Nation and use them on Navajo Nation.
  - Reclaim Act of 2017 (HR17-31) -- \$1 mil available to communities for economic development.
  - \$1.9 million available to clean up Abandoned Uranium Mines on Navajo Nation.

- Industrial Hemp.
- Water allocated to NAPI is half-used.
- #1 jobs in renewable energy is solar -- Solar Power Plant in Kayenta serves 13,000 homes.
- Locals benefit from solar.
- Natural gas is cheap and solar is not going away.
- **Comment:** (Ray Begay - Fmr. NM State Representative) Started a business in 1999. Had difficulties with tribal bureaucracy.
  - Dealing with time sensitive deadlines
  - Money held up in Navajo Nation Government structure and 164 review process.
  - Now there is a 164a and 164b review process.
    - Complicates economic development and funding from the state.
    - Navajo Nation did not see benefit from state funding.
  - Navajo Nation unspent funding went back to the federal government.
  - Economic Development is challenged by internal government structure.
  - Contracts and approvals stuck in DOJ results in lost money.
- **Comment:** (Ashley from PLS) Works in many places like this. Sees Navajo Nation remoteness as a strength - not challenge or weakness since it is not common in the US anymore. Lack of property ownership can be a strength - real estate is not tied to wealth generation anymore. Lastly, spirituality is Navajo Nation's greatest strength. These can be turned into real opportunities.
- **Comment:** San Juan County is coming together with tribes to address these issues together as one entity rather than separate entities.
- **Comment:** Arizona, New Mexico, and Utah combined have 77 counties. The Navajo Nation has 110 Chapters. 110 Chapters vs. 77 Counties in three states! Navajo Nation makes it more complicated.
- **Comment:** Great leadership is key in the happiest countries in the world. Denmark, Costa Rica, and Singapore are the top three countries.  $\frac{3}{4}$  of human happiness derives from six (6) factors:
  - Strong Economic Growth
  - Life Expectancy
  - Quality relationships
  - Generosity
  - Trust
  - Freedom to live the life right for you
- **Comment:** (Ernest Hubble, small business owner and painter) I was raised traditionally. Thank you for the presentation. It presents an important conversation.
  - What makes the Navajo people so significant? Their language and tradition.
  - Financial economic development (western-style) is an example of cultural appropriation that is imposed on Navajo people.
  - What is more important? Money (\$) or culture/tradition? Mother Earth or the dollar? This presentation is important and real.

- Young people are leaving for jobs. Yet, young people are coming back for cultural fulfillment. Economic development needs to come from people, not the government.
- There needs to be a balance between culture and profit. I challenge you to incorporate traditional Navajo values into this plan.
- **Comment:** (Dwayne Yazzie, President of Shiprock Chapter) The problem comes from the base of reference/perception. Presentation comes from a capitalist/American viewpoint. This is being imposed upon the Navajo People. The remedy to the problem needs to be from an indigenous perspective.
  - I could take this presentation or leave it -- it needs to be put in my point of reference/perspective.
  - You need to understand the foundation of the Navajo people -- what will and will not work. They will incorporate these ideas as they see fit. The Navajo people will decide what will work for them.
- **Comment:** I agree with Mr. Yazzie. We need to incorporate the traditional lifestyle and sustainability along with economic development.
- **Comment:** There is low wealth concentration on the Navajo Nation. We need to set up financial institutions to help the rural and poor (micro loans).
  - Selflessness vs. Selfishness
  - There are more poor people than rich people, but businesses cater to the middle and upper classes.
  - The solution comes from poor people in their communities. They have to develop social businesses.
- **Comment:** There needs to be education on the cultural perspective of what the Navajo people want.
- **Comment:** We need to differentiate the values of the Navajo people and the Navajo Nation government. Navajo Tradition was developed to protect the people regardless of their circumstances.
- **Comment:** There should also be collaboration within the Navajo Nation to obtain and keep federal dollars, with a need to move away from dependence on federal funding.

Date: 12/11/17

Location: Cocoino Community College Page A2

Subject: Comprehensive Economic Development Strategy for areas affected by cold mine closure

Meeting Sign In Sheet

Name	Organization	Phone	Email
1 Adrien Ostam	ETO Inc.	928 255 2554	adrien@etd-inc.com
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4 Michael Amerson	<del>ETD</del> APRM.	928-640-0101	MIKER@APRMC.COM
5 Tamm Secordy	Kaiibeto Chapter	928 673-5852	kaiibeto@navajo-chapters.org
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Date: 12/12/2017

Meeting Sign In Sheet

Location: San Juan College, School of Energy  
 Subject: CEDS for areas affected by coal mine closures

Name	Organization	Phone	Email
1 Kristin Miller	ETD, Inc.	928-779-6032	kmiller@ETD-inc.com
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4 Jake B. Little	Ranchers	505-421-8920	Sanjuancjrp@gmail.com
5 Tracy Fox	LCAG	705-716-3030	josey@indiancountrygrassroots.org
6 Ewert Oldham	USDA - RD	505-634-5625	ewert.oldham@usda.gov
7 Warren Musicker	4CEP	505-566-3720	wmusicker@4cornersed.com
8 Noel Smith	The Daily Times	505-514-4636	noel@thedaily-times.com
9 Katelyn WOLKOWSKI	Public Land Solutions	910-3205	desney@publiclandsolutions.org
10 Katie Ross	Public Land Solutions	430-3123	katie@publiclandsolutions.org
11 Lori Goodman	Dine CARE		kingeni@frontier.net
12 Stephanie Ceal	USDA - RD	435-587-2111	StephanieCeal@usda.gov
13 Jim Dumont	us.imate.kennedy	505-328-5030	jim.dumont@nrmccal.sevate.gov
14 Ernest E. Hobbell	EGHhobbell.com		
15 Rick Norz	San Juan County		ricknorz@hotmail.com
16 Eddie J. Arthur	Dade Heland Dev.	938-855-2668	edwardarthur361@yahoo.com
17 Evelyn Gray	Childcare's Chry	918-1091-5108	evgray@navajichapters.org
18 Kathleen Hayes	Hayes Ranch Inc	505-400-8816	Kat@apsonport.com
19 Ben Graves	Hayes Ranch Inc	505-550-9133	benjaminhayes@adl.com
20 STEVE GREY	NTEC	505-278-8636	STEVE_GREY@NTEC-TEC.COM
21 Chli Yazgier	SHIPROCK ADAPTED	705-368-1081	chli.yazgier@chli.org
22 Amy Beatty	Terra Group LLC	505-386-8337	abeatty@terra.com
23 Arnold Sells	Self	505-462-1016	None
24 Mark Pearson	San Juan Citizens Alliance	970-259-3583	Mark@sanjuancitizens.org

\*Account  
 of  
 Sign-in  
 sheet

Date: 12/12/2017

Location: San Juan College - School of Energy  
Subject: CEDS for areas affected by coalmine closures

Meeting Sign In Sheet

Name	Organization	Phone	Email
1 Bradley	Mithinbet	984-429-969	mthunbet@bluwin.com
2 Paul Geary	The Dan Ryan Chapter	505-482-5377	Pjgeary@citink.net
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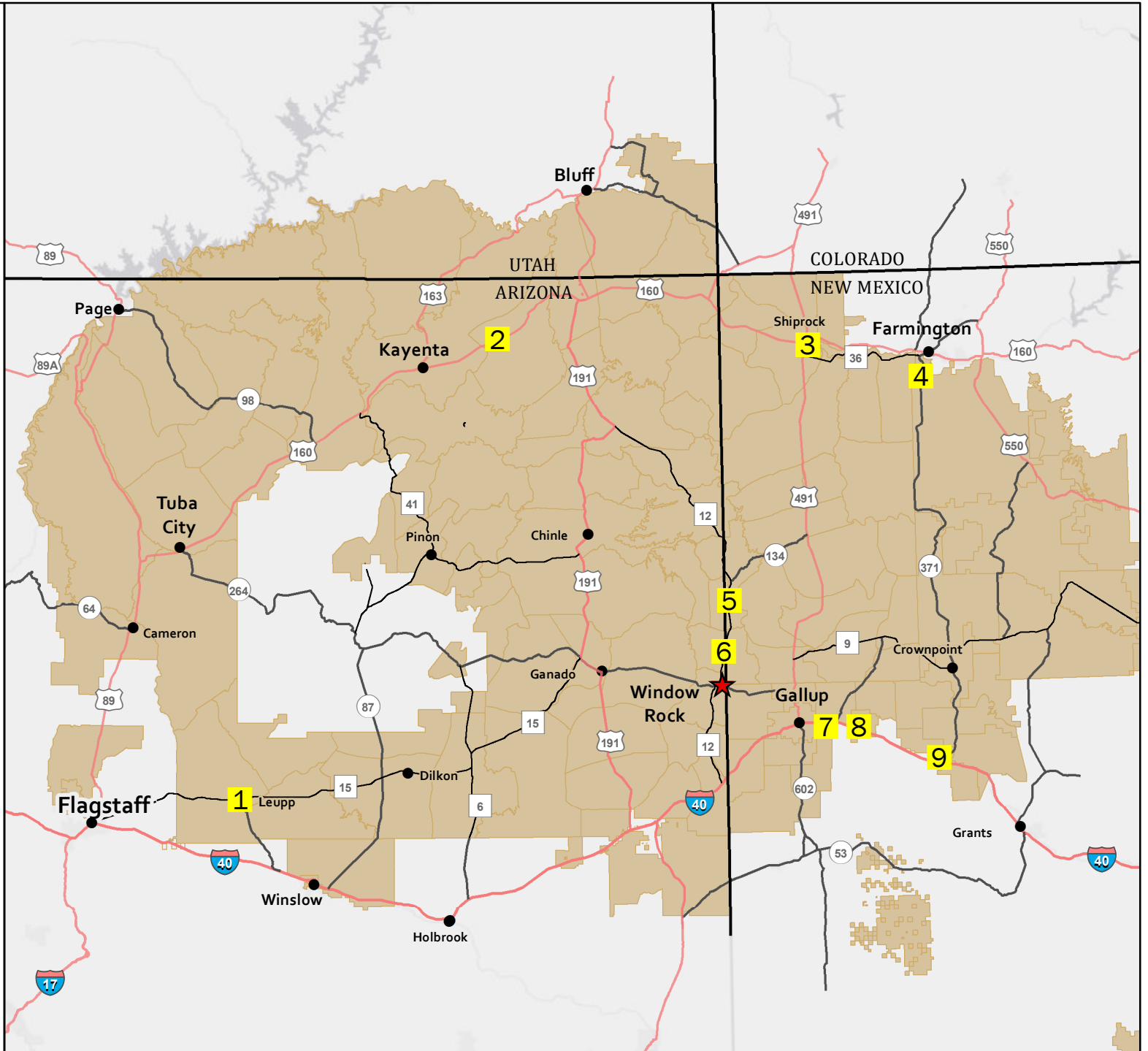
# **Appendix D**

## **RBDO Available Business Site Leases**



# Navajo Advantage Industrial Parks and Economic Development Areas

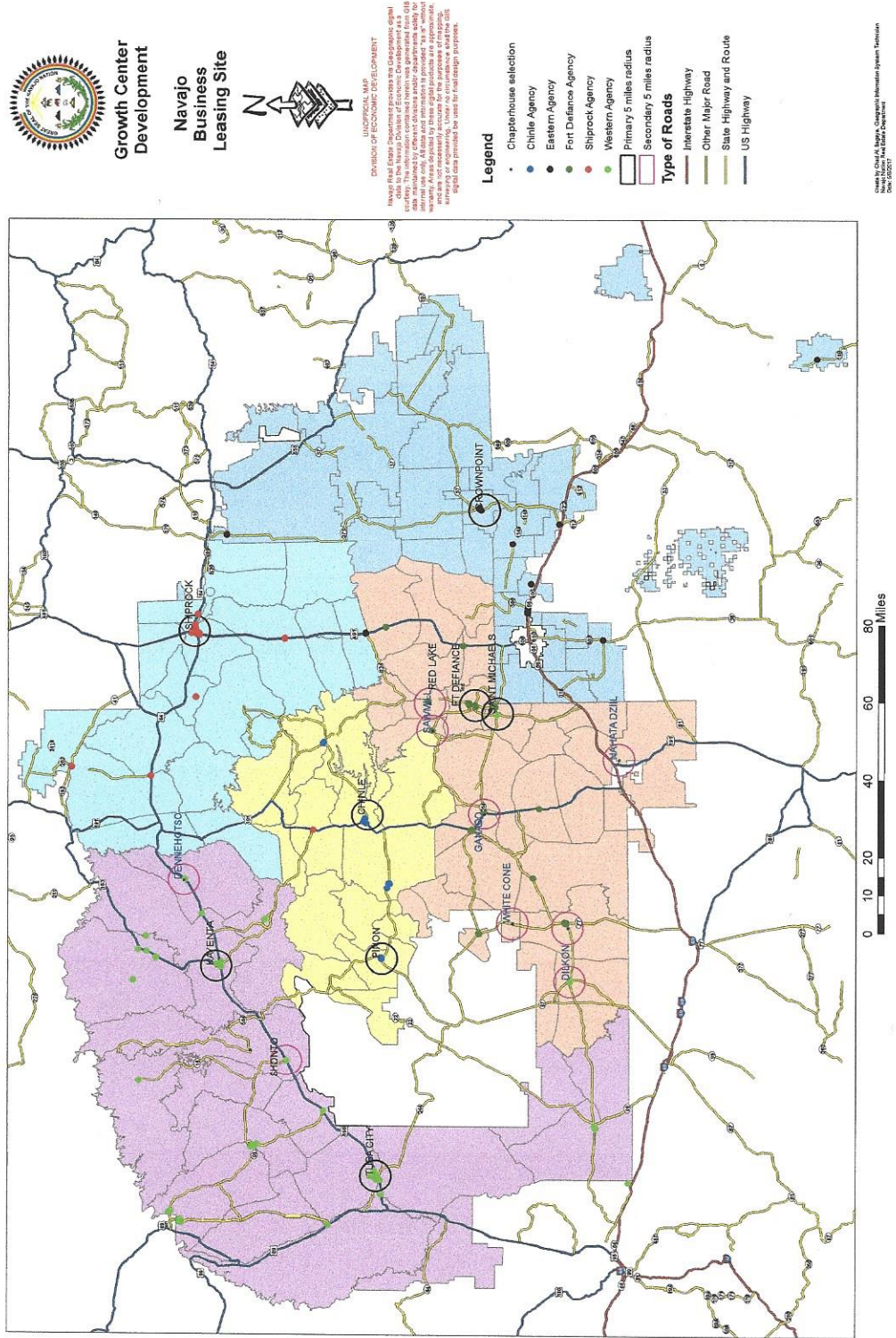
- 1** Leupp Industrial Park
- 2** Dennehotso Development Site
- 3** Shiprock Industrial Park & Ayani Neez Industrial Building
- 4** NAPI Industrial Park & Lot 18 (Available)
- 5** NFPI Industrial Park
- 6** Ft. Defiance Industrial Park
- 7** Church Rock Industrial Park & Industrial Building
- 8** Shush Be Toh Development Site
- 9** Thoreau Development Site



Industrial Park Source: Navajo Nation Dept. of Economic Development, Project Development Dept.

# REGIONAL GROWTH AREA MAP

## Navajo Business Leasing Sites



Source: Navajo Nation Division of Economic Development



# UNDEVELOPED CHAPTER COMMERCIAL TRACTS

## Regional Business Development Offices

### Chinle Agency

	Chapter	Status	Acreage
1	Hard Rock	1-BSL Active (5.5)	
2	Forest Lake	1-BSL Non-Active	1.17
3	Black Mesa	None-No BSL	
4	Blue Gap	1-BSL Active (4.63)	
5	Pinon	2-BSL Abandoned-needs clean-up	2.73
6	Whippoorwill	1-BSL Active (20.0)	
7	Indian Wells	1-BSL-needs site prep	25.00
8	Chinle	7-BSL Non-Active	17.40
9	Nazlini	1-BSL Non Active - needs clean-up	2.14
10	Cottonwood	1-BSL Un-developed	2.00
11	Many Farms	4-BSL Un-developed	4.54
12	Round Rock	3-BSL Abandoned-needs clean-up	7.00
13	Lakachukai	2-BSL Abandoned-needs clean-up	9.00
14	Tsaile/Wheatfields	4-BSL Undeveloped-needs clean-up	7.00
15	Rough Rock	1-BSL Abandoned-needs clean-up	6.70
16	Low Mountain	2-BSL; 1-BSL needs clean-up	8.50

### Eastern Agency

	Chapter	Status	Acreage
1	Pueblo Pintado	Inactive	4.93
2	Crownpoint	Inactive	0.68
3	Crownpoint	Inactive	0.35
4	Crownpoint	Inactive	0.41
5	Mariano Lake	Inactive	3.39
6	Standing Rock	Inactive	3.00

### Ft. Defiance Agency

	Chapter	Status	Acreage
1	Cornfields	3 Sites	25 / 100 / 25
2	Ft. Defiance	2 Sites	6.00
3	Ganado	Two Sites	7.94
4	Lower Greasewood	1 Site	
5	Sawmill	1 Site	
6	St. Michaels	1 Site	
7	Tohatchi	1 Site	

## Northern Agency

	<b>Chapter</b>	<b>Status</b>	<b>Acreage</b>
1	Aneth	3 sites; Land withdrawn	24.00 / 9.20 / 5.83 / 1.98
2	Teec Nos Pos	1 Expired BSL; 1 Land withdrawn	16.88 / 8.41
3	Red Mesa	2 sites; Land withdrawn	17.67 / 5.00
4	Dennehotso, AZ	2 sites; Land withdrawn / 1 BSL; Expired	10.00 / 55.00
5	Oljato	1 Expired BSL; 2 Cancelled BSL	3.90 / 4.00 / 6.00

## Shiprock Agency

	<b>Chapter</b>	<b>Status</b>	<b>Acreage</b>
1	Upper Fruitland	Undeveloped	5.99
2	Shiprock	New lease - Undeveloped	1.74
3	Shiprock	Lease terminated - Undeveloped	3.03
4	Shiprock	Lease terminated - Undeveloped	7.995
5	Shiprock	Lease terminated - Undeveloped	2.81
6	Shiprock	Lease terminated - Undeveloped	2
7	Shiprock	Lease terminated - Undeveloped	2.855
8	Shiprock	Lease terminated - Undeveloped	32.25
9	Shiprock	Lease terminated - Undeveloped	2.996
10	Shiprock	Lease terminated - Undeveloped	1
11	Shiprock	Lease terminated - Undeveloped	2.77
12	Shiprock	Lease terminated - Undeveloped	1.66
13	Shiprock	Development expired - Undeveloped	10
14	Shiprock	Lease terminated - Undeveloped	2
15	Shiprock	Lease terminated - Undeveloped	3.6
16	Shiprock	Expired lease -Undeveloped	1.28
17	Shiprock	Expired lease -Undeveloped	2.983
18	Shiprock	Expired lease -Undeveloped	1.51
19	Shiprock	Expired lease -Undeveloped	1.05
20	Shiprock	Expired lease -Undeveloped	0.5
21	Shiprock	Lease terminated - Undeveloped	2.59
22	Shiprock	New lease - Undeveloped	0.806
23	Sanostee	Lease terminated - Undeveloped	1.86
24	Newcomb	Lease terminated - Undeveloped	1.36
25	Cove	Expired lease -Undeveloped	1.82



## Western Agency

	Chapter	Status	Acreage
1	Bodaway/Gap	Water & waste water lines and access road have been constructed with various outside grant funds.	4 acres
2	Bodaway/Gap	Previously a T.P. site, now vacant. Needs waste water disposal system (sewer lagoon)	4 acres
3	Bodaway/Gap	Identified as chapter property but there are some interest from business people.	12 acres
4	Bodaway/Gap	Barney Enterprise, LLC received Chapter resolution for a laundromat but lacks Land approval for an access road. Undeveloped.	3 acres
5	Bodaway/Gap	Land identified for gravel site, land survey & archaeological and environmental assessment completed but needs plans for a spring to get compliance determination from Fish & Wildlife.	50 acres
6	Bodaway/Gap	NN approved land withdrawal, needs masterplan, engineering plan & design for infrastructure & construction of infrastructure.	100 acres
7	Cameron	Chapter approve supporting resolution for land withdrawal. Contract for land survey is pending approval at NN Risk Management. Hotel Development being proposed by DED.	12 acres
8	Cameron	Chapter approved supporting resolution for land withdrawal. Contract for land survey is pending approval at NN Risk Management. Chapter is interested in a Visitor and Cultural Center.	40 acres
9	Coalmine Canyon	Commercial site needs engineering plan & design for infrastructure and construction of the infrastructure.	13 acres
10	Coalmine Canyon	Light industrial site needs engineering plan & design for infrastructure and construction of the infrastructure. This site is lower than the community sewer lagoon so on-site waste disposal system will be required.	18 acres



11	Coalmine Canyon	Dinosaur Track tourism site. Land withdrawal completed. Meetings in process to put in a waterless restroom and additional tourism development.	4 acres
12	Coalmine Canyon	Commercial & Light Industrial Site. Land withdrawal completed. Engineering plan & design completed. Need funding for infrastructure development and groundwork.	27 acres
13	Chilchinbeto	Land has approved land withdrawal. Engineering plan and design completed. Need funding to construct the infrastructure.	10 acres
14	Kaibeto	Commercial & Light Industrial Site. Land withdrawal completed. Some engineering plan & design completed by Chapter. Need infrastructure.	120 Acres
15	Kaibeto	Commercial Site. Land withdrawal completed. Some engineering plan & design completed by Chapter. Need infrastructure.	80 acres
16	Kaibto	Commercial Site. Land withdrawal completed. Some engineering plan & design completed by Chapter. Market Feasibility Study completed. Needs final engineering plan & design and construction of all Infrastructure with access road.	10 acres
17	Kaibeto	Commercial Site. Land withdrawal completed. Some engineering plan & design completed by Chapter. Market Feasibility Study completed. Needs final engineering plan & design and construction of all infrastructure with access road. There is a 3 acre Business site lease within the 8 acres.	8 acres
18	Kaibeto	Old Bennett's Corner, first original lease wasterminated, 2nd lease was terminated again. There was in interest from another individual, Chapter approved resolution but client has not started working on the BSL.	3 acres
19	LeChee	Land withdrawal completed and approved. Site is for mix commercial use. Needs engineering plan & design of infrastructure and construction of infrastructure.	3 acres

20	Navajo Mountain, UT	Commercial tract has no infrastructure but engineering. Plan & design for infrastructure is completed. BIA Road constructed 2 access road.	4 acres
21	Tuba City (To'nanees-Dizi)	Former Davis Chevrolet business site. All infrastructure is available. USEPA completed its clean-up of under-ground gasoline contamination. Khangura Development, LLC is interested in developing a Marriott Hotel.	3.5 acres
22	Tuba City (To'nanees-Dizi)	Site was a home site lease and has been converted into a commercial site. Western RBDO working on land withdrawal.	2 acres
23	Tonalea	Commercial tract has an approved land withdrawal. Engineering plan & design are completed. Need funding for construction of infrastructure with access roads. Chapter has funding for Market Feasibility Study.	9 acres

Source: Navajo Nation Division of Economic Development