

FORMER BENNETT FREEZE AREA (FBFA) RECOVERY PLAN

PREPARED FOR THE NAVAJO NATION,
DIVISION OF COMMUNITY DEVELOPMENT,
DESIGN AND ENGINEERING SERVICES

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Former Bennett Freeze Area Recovery Plan

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**Prepared for the Navajo Nation Division of Community Development
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Former Bennett Freeze Area Recovery Plan



Table of Contents

1.0 Introduction.....	1
1.1 History of the Bennett Freeze	1
1.2 Project Description.....	3
1.2.1 Overview.....	3
1.2.2 Public Participation.....	5
1.2.3 Field Survey.....	8
1.2.4 Existing Data and Plans	9
1.3 Document Purpose and Organization	10
1.3.1 Purpose.....	10
1.3.2 Document Organization	12
1.4 Former Bennett Freeze Area (FBFA) Assessment	13
1.4.1 Methodology	13
1.4.2 Population	17
1.4.3 Housing.....	22
1.4.3 Road Conditions.....	26
1.4.4 Water Service.....	27
1.5 FBFA Recovery	30
1.5.1 Healthier, Safer Communities.....	30
1.5.2 Lifelong Opportunities and Services	30
1.5.3 Desired Growth Over Time	31
1.5.4 Sustainable, Self-Sufficient Communities.....	32
2.0 Legal Framework.....	33
2.1 Land Management	33
2.1.1 Water Resources	33
2.1.2 Water Demand and Supply Plans	38
2.1.3 Natural Resource Management.....	39
2.1.4 Grazing and Agriculture	46
2.1.5 Land Conservation.....	52
2.1.6 Land Determination	55
2.1.7 Land Status.....	55
2.1.8 Flood Protection.....	56
2.2 Governance	57
2.2.1 Chapters	57
2.2.2 Tuba City	58
2.2.3 Navajo Nation	59
2.3 Infrastructure & Capital Improvement Project (ICIP) Management	63
2.3.1 Chapter Responsibilities	64
2.3.2 Navajo Nation Division of Community Development (NNDCD)	66
3.0 Public Agencies Serving the Bennett Freeze Area.....	73
3.1 Housing Service Providers.....	73

3.1.1 Navajo Housing Authority (NHA).....	73
3.1.2 Navajo Community Housing and Infrastructure Department.....	73
3.2 Water and Wastewater Utility Service Providers	75
3.2.1 Indian Health Service (IHS).....	75
3.2.2 Navajo Tribal Utility Authority (NTUA)	76
3.2.3 Bureau of Indian Affairs (BIA).....	76
3.3 Power and Natural Gas	80
3.3.1 NTUA	80
3.3.2 Private Companies – Propane Gas.....	81
3.3.3 Arizona Public Service (APS) Company.....	81
3.4 Telecommunications	84
3.4.1 Navajo Nation Telecommunications Regulatory Commission.....	84
3.4.2 Frontier Communications	84
3.4.3 Cellular Phone Companies.....	84
3.5 Transportation	85
3.5.1 Navajo Department of Transportation (NDOT)	85
3.5.2 Bureau of Indian Affairs (BIA).....	86
3.5.3 Arizona Department of Transportation (ADOT)	87
3.5.4 Coconino County Road Maintenance	87
3.5.5 Public Transportation.....	89
3.5.6 Air Transportation.....	89
3.5.7 Railroad.....	89
3.6 Health and Public Safety.....	91
3.6.1 Navajo Area Indian Health Services (NAIHS).....	91
3.6.2 Navajo Nation Division of Health	91
3.6.3 Navajo Nation Division of Public Safety.....	92
3.6.4 Windmills, Livestock Storage Tanks, and Earthen Dams	95
3.6.5 Range Enforcement.....	95
3.7 Community Facilities, Parks, and Recreation.....	96
3.7.1 Division of Community Development.....	96
3.7.2 Division of Social Services (DSS).....	96
3.7.3 Navajo Parks and Recreation Department (NPRD).....	98
3.7.4 Arizona Department of Veteran’s Services	99
3.7.5 Navajo Nation Department of Veterans Affairs	100
3.8 Economic Development.....	102
3.8.1 Tribal Enterprises.....	102
3.8.2 Navajo Nation Division of Economic Development (DED)	103
3.9 Natural and Cultural Resources	105
3.9.1 Navajo Nation Department of Fish and Wildlife.....	105
3.9.2 Navajo Parks and Recreation Department (NPRD).....	105
3.9.3 Navajo Abandoned Mines Land (AML) Reclamation Department.....	105
3.9.4 Navajo Forestry Department.....	106
3.9.5 Navajo Nation Minerals Department.....	106
3.9.6 Navajo Resource Enforcement	107
3.9.7 Navajo Agricultural Department.....	108
3.9.8 Navajo Land Department.....	108

3.9.9 Navajo Nation Archaeology Department.....	109
3.9.10 Department of Water Resources	112
3.9.11 Navajo Nation Historic Preservation Department (HPD).....	113
3.9.12 BIA Fort Defiance Agency Branch of Natural Resources.....	115
3.10 Education	118
3.10.1 Division of Diné Education	118
3.10.2 Bureau of Indian Affairs (BIA).....	120
3.10.3 Schools Serving the FBFA.....	122
4.0 Recommended Priority Projects.....	127
4.1 Housing.....	128
4.1.1 Needs Assessment.....	128
4.1.2 Infrastructure & Capital Improvement Projects.....	133
4.1.3 Cost Estimate Summary.....	139
4.2 Infrastructure and Utilities	147
4.2.1 Needs Assessment.....	147
4.2.2 Infrastructure & Capital Improvement Projects.....	149
4.2.3 Cost Estimate Summary.....	152
4.3 Transportation	154
4.3.1 Needs Assessment.....	154
4.3.2 Infrastructure & Capital Improvement Projects.....	155
4.3.3 Cost Estimate Summary.....	157
4.4 Health and Public Safety.....	158
4.4.1 Needs Assessment.....	158
4.4.2 Infrastructure & Capital Improvement Projects.....	160
4.4.3 Cost Estimate Summary.....	164
4.5 Community Facilities, Parks, and Recreation.....	166
4.5.1 Needs Assessment.....	166
4.5.2 Infrastructure & Capital Improvement Projects.....	169
4.5.3 Cost Estimate Summary.....	177
4.6 Economic Development.....	183
4.6.1 Needs Assessment.....	183
4.6.2 Infrastructure & Capital Improvement Projects.....	188
4.6.3 Cost Estimate Summary.....	199
4.7 Agriculture, Grazing, and “Areas of Avoidance”	201
4.7.1 Needs Assessment.....	201
4.7.2 Infrastructure & Capital Improvement Projects.....	202
4.7.3 Cost Estimate Summary.....	203
4.8 Education	204
4.8.1 Needs Assessment.....	204
4.8.2 Infrastructure & Capital Improvement Projects.....	206
4.8.3 Cost Estimate Summary.....	209
4.9 Priority Implementation.....	213
4.9.1 Priority Projects: 2010	215
4.9.2 Priority Projects: 2011	238
4.9.3 Priority Projects: 2012	240
4.9.4 Priority Project: 2013.....	242

4.9.5 Priority Project: 2014.....	243
4.9.6 Priority Projects: 2015	244
4.9.6 Priority Projects: Projects Starting Past 2015 or Needing More Information	244
5.0 Governance and Policy Issues.....	247
5.1 Sacred Lands, Corridors, & Historic Preservation.....	247
5.1.1 Navajo-Hopi Secret Compact Provisions to Protect Sacred Lands, Corridors, Species	247
5.1.2 Easily Shared Information Needed for Historic Preservation Department...	247
5.1.3 Preservation Policies Needed in Chapter Plans	248
5.1.4 Sharing Local and Generational Knowledge	248
5.2 Chapter Boundaries / Service Areas	249
5.3 FBFA Task Force Adjustments	250
5.3.1 FBFA Resident Representation and Coordination.....	250
5.3.2 Additional Division and Department Representation	250
5.3.3 Coordination with Other Organizations Involved in Recovery Efforts	251
5.3.4 Implementing Recovery Efforts.....	251
5.4 FBFA Resident Representation at the Chapter	254
5.5 Infrastructure and Capital Improvement Project Criteria	255
5.5.1 Existing Criteria	255
5.5.2 Additional Criteria Relevant to FBFA Projects	255
5.5.3 Inter-Department and Agency Coordination	255
5.5.4 Approval Process	255
5.6 FBFA Project Priorities at Departments and Agencies.....	256
5.6.1. Housing.....	256
5.6.2 Infrastructure.....	258
5.6.3 Community Facilities.....	260
5.6.4 Water Delivery.....	261
5.7 Avoiding Obstacles to Development	262
5.7.1 Grazing Permittees.....	262
5.7.2 Chapter Capacity for Project Management, Maintenance, and Operations..	264
5.7.3 Cooperation and Ownership Among Agencies / Departments	265
5.7.4 Cooperation and Resource Sharing Among Chapters	266
5.7.5 Community Education and Inter-Generational Planning.....	266
5.7.6 “Generations of Mistrust”	268
5.7.7 Training and Recruitment for Professionals and Skilled Workers	268
5.7.8 Incentives for Regional Improvements.....	269
5.8 Updating and Maintaining Data and Plans	271
5.8.1 GIS Database	271
5.8.2 Agency, Department, and Program Plans	271
5.8.3 Chapter Land-Use and ICIP Plans	271
5.9 Public Health Issues.....	272
5.9.1 Uranium	272
5.9.2 Livestock Water.....	272
5.9.3 Wastewater and Septic Systems in Remote Areas.....	272
5.9.4 Emergency Response in Rural Areas.....	273

6.0 Funding & Agency Sources.....	275
6.1 Utility Infrastructure	275
6.2 Water/Wastewater.....	277
6.3 Housing.....	280
6.4 Economic Development.....	285
6.5 Natural Resources	286
6.6 Solid Waste Management	287
6.7 Brownfields.....	287
7.0 Appendix.....	289
7.1 Field Team Assessment Criteria	289
7.2 Chapter Workshop Reports.....	289
7.2.1 Bodaway – Gap.....	289
7.2.2 Cameron.....	289
7.2.3 Coalmine Canyon.....	289
7.2.4 Coppermine.....	289
7.2.5 Kaibeto.....	289
7.2.6 Leupp	289
7.2.7 Tolani Lake	289
7.2.8 Tonalea.....	289
7.2.9 Tuba City	289
7.3 Project Contact List.....	289
7.4 Resources	289
7.4.1 Agency Inquiry	289
7.4.2 People Team Information Requested.....	289
7.4.3 Land Team Information Requested	289
7.4.4 Agency and Department List	289
7.4.5 References.....	289
7.4.6 Planning Documents Received	289
7.5 Chapter Land-Use Plans (Contained in Separate CD).....	290
7.5.1 Bodaway-Gap	290
7.5.2 Cameron.....	290
7.5.3 Coalmine Canyon.....	290
7.5.4 Coppermine.....	290
7.5.5 Kaibeto.....	290
7.5.6 Leupp	290
7.5.7 Tolani Lake	290
7.5.8 Tonalea.....	290
7.5.9 Tuba City	290
7.6 Intergovernmental Compact between the Navajo Nation and Hopi Tribe, 2006	290
7.7 Tuba City Disposal Site	290
7.8 IHS Projects in FBFA	290
7.9 Western Agency Roads Committee Requests.....	290
7.10 Homesite Archaeological Clearance Brochure.....	290
7.11 FBFA ICIP List – by Chapter	290
7.11.1 Bodaway-Gap	290
7.11.2 Cameron.....	290

7.11.3 Coalmine Canyon.....	290
7.11.4 Coppermine.....	290
7.11.5 Kaibeto.....	290
7.11.6 Leupp	290
7.11.7 Tolani Lake	290
7.11.8 Tonalea.....	290
7.11.9 Tuba City	290
7.12 FBFA ICIP List – by Category	290
7.12.1 Infrastructure / Utilities.....	290
7.12.2 Transportation.....	290
7.12.3 Community Facilities.....	290
7.12.4 Other	290
7.13 Chapter ICIP Lists.....	290
7.13.1 Bodaway – Gap.....	290
7.13.2 Cameron.....	290
7.13.3 Coalmine Canyon.....	290
7.13.4 Coppermine.....	290
7.13.5 Kaibeto.....	291
7.13.6 Leupp	291
7.13.7 Tolani Lake	291
7.13.8 Tonalea.....	291
7.13.9 Tuba City	291
7.14 Funding Story – White Mountain Apache	291
7.15 Project Summary Powerpoint	291
7.16 Definitions & Acronyms.....	291
7.17 Public Comments	291

Table of Figures

Figure 1: Former Bennett Freeze Area Location	2
Figure 2: FBFA Boundary & Impacted Chapters	4
Figure 3: Overlapping Chapter Boundaries	15
Figure 4: FBFA Chapter Population, 1980-2000.....	18
Figure 5: U.S. Census Historic "Reservation Area"	19
Figure 6: U.S. Census "Reservation Area" Population, 1960-2000	20
Figure 7: Population Projects for FBFA Chapters	21
Figure 8: Housing Occupancy in the FBFA	24
Figure 9: House Conditions in the FBFA	25
Figure 10: Road Conditions in the FBFA	27
Figure 11: Water Delivery in the FBFA	29
Figure 12: Watering Points in the FBFA	35
Figure 13: Land Management Districts	50
Figure 14: FBFA Chapter Council Delegates.....	61
Figure 15: FBFA Chapter House Locations	66
Figure 16: Solid Waste Facilities in the FBFA.....	72
Figure 17: Water Systems in the FBFA.....	77

Figure 18: Wastewater Lagoons in the FBFA	78
Figure 19: Wastewater Utility Service in the FBFA.....	79
Figure 20: APS Service Boundaries	81
Figure 21: Power in the FBFA.....	82
Figure 22: Gas Lines in the FBFA.....	83
Figure 23: ADOT & Coconino County Maintained Roads in the FBFA	88
Figure 24: Major Roads and Railroad in the FBFA.....	90
Figure 25: Public Safety Facilities in the FBFA.....	94
Figure 26: Community Facilities in the FBFA	101
Figure 27: Economic Development in the FBFA	104
Figure 28: Grazing, Agriculture, and "Areas of Avoidance" in the FBFA.....	111
Figure 29: Regional Parks and Recreation Areas near the FBFA	116
Figure 30: Infrastructure & Utilities in the FBFA	117
Figure 31: Educational Facilities in the FBFA	126
Figure 32: Economic Development Sites - Numbered in Yellow Circles	188
Figure 33: Priority Projects for 2013	242
Figure 34: Other Projects for Implementation in 2013.....	243

Tables

Table 1: Recovery Plan Public Participation	7
Table 2: FBFA Growth, 1980-2000.....	18
Table 3: Navajo Police Districts Serving the FBFA.....	92
Table 4: Housing ICIP Project Descriptions.....	138
Table 5: Housing Project Costs.....	146
Table 6: Infrastructure & Utilities ICIP Project Descriptions	151
Table 7: Infrastructure & Utilities Project Costs	154
Table 8: Transportation ICIP Project Descriptions.....	156
Table 9: Transportation Project Costs.....	158
Table 10: Health & Public Safety ICIP Project Descriptions	163
Table 11: Health & Public Safety ICIP Project Descriptions	163
Table 12: Health & Public Safety Project Costs.....	165
Table 13: Community Facility, Parks, & Recreation ICIP Project Descriptions.....	176
Table 14: Community Facilities, Parks, & Recreation Project Costs	182
Table 15: Economic Development ICIP Project Descriptions	198
Table 16: Economic Development Project Costs	200
Table 17: Agriculture, Grazing, & "Areas of Avoidance" ICIP Project Descriptions...	202
Table 18: Agriculture, Grazing, & "Areas of Avoidance" ICIP Costs	203
Table 19: Education Project Descriptions.....	208
Table 20: Education ICIP Project Costs	212
Table 21: Priority Projects & Project-Readiness	227
Table 22: Other Projects for Implementation	237
Table 23: Priority Projects 2012	240
Table 24: Other Projects for Implementation in 2012	242

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1.0 Introduction

1.1 History of the Bennett Freeze

A land dispute between the Navajo Nation and the Hopi Tribe arose after the United States delineated the boundaries of the Hopi Reservation in 1882, which excluded some Hopi villages, farmlands and sacred places. In 1934, the United States defined the boundaries of the Navajo Reservation on its western side, and a portion of the Hopi Tribe's 1882 Reservation, known as District 6, was reserved exclusively for use by the Hopi Tribe.

In 1966, Bureau of Indian Affairs Commissioner Robert L. Bennett issued a series of administrative orders that restricted development in the western portion of the Navajo Reservation as defined in 1934. This became known as the Bennett Freeze and was intended to be a temporary measure to prevent one tribe from taking advantage of the other until the land dispute was settled. The Bennett Freeze restricted property development without joint consent of the Hopi Tribe and Navajo Nation, which had a devastating impact on area residents and resulted in substandard housing, infrastructure, services, and quality of life.

In 1992, a U.S. District Court judge ordered that the Bennett Freeze be lifted. The Arizona District Court ruled that the Hopi Tribe had legal title to 64,000 acres in the freeze area and awarded the balance to the Navajo Nation. Significant construction and rehabilitation began; however, in 1995, the freeze was reinstated when the Ninth Circuit Court of Appeals reversed the Arizona District Court's decision on the question of whether Hopi religious practices gave rise to rights of occupancy.

In 1997, a Federal District Court approved an agreement between parties lifting half of the freeze in the Bennett Freeze Area. Litigation continued regarding the status of the remaining area.

In 2006, Navajo and Hopi leaders signed an Intergovernmental Compact, which was approved by a federal court in 2007, lifting the Bennett Freeze. The compact clarifies the boundaries of the Navajo and Hopi reservations in Arizona and ensures that access to religious sites of both tribes is protected. The compact is not a public document; therefore the location of religious sites and access corridors is not known. Clarifying how these sites and corridors are to be protected from development in perpetuity is a governance and policy challenge that must be faced by leadership of both tribes, as well as, the Navajo Nation Historic Preservation Department and Navajo Nation Land Departments.



Figure 1: Former Bennett Freeze Area Location

1.2 Project Description

1.2.1 Overview

WHPacific, Inc., an Alaskan-native owned company, was contracted by the Navajo Nation's Design and Engineering Services (DES) to develop a Regional Recovery Plan for the former Bennett Freeze area (FBFA) between May and September of 2008.

This effort included information-gathering within the FBFA, but also throughout the rest of nine chapters affected by the freeze, for purposes of comparison in terms of the impact and resulting needs of residents. This plan consolidates the priority capital projects of nine chapters affected by the former Bennett Freeze – Bodaway/Gap, Cameron, Coalmine Canyon, Coppermine, Kaibeto, Leupp, Tolani Lake, Tonalea, and Tuba City – to create a strategic implementation plan, which can also be reshaped for eventual submittal as a special appropriation request from Congress.

WHPacific Inc., gathered information using three main methods over the four and a half month planning process:

- 1) from residents, officials, and chapter staff at two community workshops in each chapter;
- 2) from research and analysis of existing plans and ongoing project efforts at chapter, tribal, and federal agencies and departments; and
- 3) from field teams using a Global Positioning System (GPS) to take data points at houses, roads, and other man-made features, and assess each feature's condition, whether very good, good, fair, poor, or very poor based on particular criteria, included in **Appendix 7.1**.

WHPacific, Inc., produced three deliverables:

- 1) this recovery plan identifying top priority capital projects, including estimated costs and recommendations for implementation,
- 2) updated land-use plans for each chapter to proceed with certification, and
- 3) all gathered GPS data and maps in the form of a Geographic Information System (GIS) database.

FORMER BENNETT FREEZE CHAPTERS

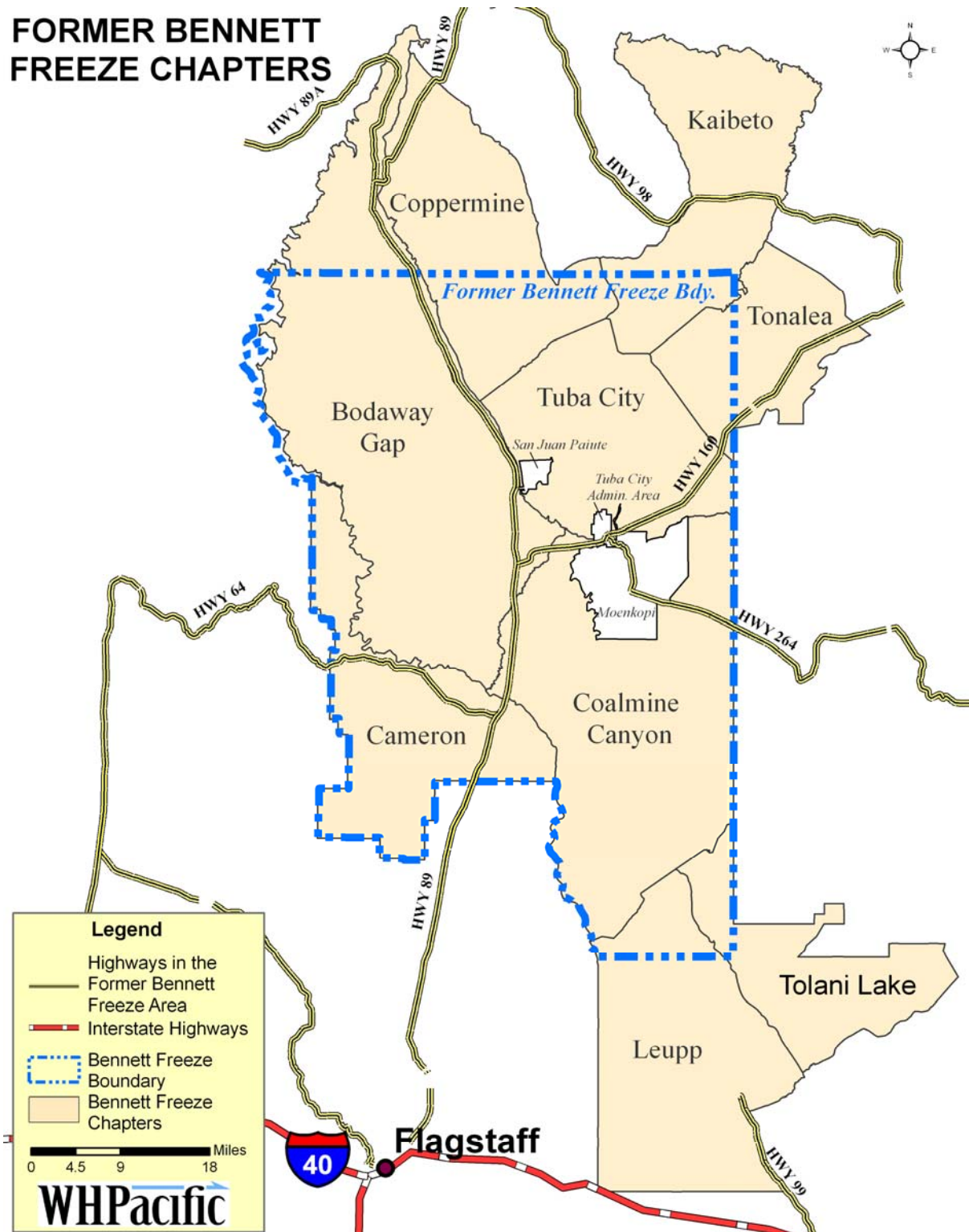


Figure 2: FBFA Boundary & Impacted Chapters

The successful recovery process from more than forty years of the Bennett Freeze will require strong leadership, clear community vision, productive partnerships across chapters and among agencies and departments, and dogged determination of all involved to implement the projects needed in impacted areas.

- The chapter certification process is one way to continually build capacity at the local level for governance, project management, and ongoing operations and maintenance.
- The existing former Bennett Freeze Area Task Force will need to continue to lead, coordinate, and focus the effort among constituent federal and tribal departments and agencies toward recovery for all those affected by the freeze.
- The Navajo Nation's Division of Community Development, particularly its Design and Engineering Services, will need to continue its tireless efforts to support chapters in implementing their plans and bringing their visions to reality.

1.2.2 Public Participation

WHPacific, Inc., assembled a People Team made up of three partner teams, one facilitator and one recorder, with at least one of those members fluent in Navajo to facilitate the community workshops in each chapter, the first in May-June and the second in July, 2008.

These teams were led by master facilitator Asa Begaye, who has over twenty years of experience working with tribal communities in a variety of strategic planning contexts. He has also worked in a range of capacities for the Navajo Nation, including within the tribal administration and the education department.

In response to the short planning timeframe, these three partner teams were able to facilitate workshops simultaneously in up to three chapters at a time.

These teams worked with local chapter officials and the chapter service coordinators to plan the logistics of the meetings and invite participants.



Coalmine Canyon Workshop



Tolani Lake Workshop



Kaibeto Workshop

Community Visioning & Land-Use Workshops				
Chapter	Chapter Workshop 1		Chapter Workshop 2	
Bodaway-Gap	May 28-29	50 people	July 10	100 people
Cameron	May 29-30	20 people	July 12	60 people
Coalmine Canyon	May 30-31	25 people	July 8	30 people
Coppermine	June 6-7	20 people	July 8	30 people
Kaibeto	June 10-11	60 people	July 9	30 people
Leupp	May 29-30	25 people	July 9	20 people
Tolani Lake	May 27-28	15 people	July 10	20 people
Tonalea	May 27-28	45 people	July 11	100 people
Tuba City	May 21-22	10 people	July 11	50 people
All-Chapter Public Meetings				
	Kickoff Summit		Final Summit	
Tuba City Community Center	June 4	115 people	August 6	345 people
Total Involvement		1,200 touches*		

Table 1: Recovery Plan Public Participation

** Might include overlap between people at workshops and summit. Total includes each time someone “touched” this project during a public participation event.*

The workshops were mostly well-attended and served to spread information about the project throughout the community. Approximately 50-150 residents in each community attended at least one of the workshops. The workshops each resulted in a report summarizing the facilitation methods and outcomes, which were distributed to the chapter and can be found in the **Appendix 7.2**.

Larger public meetings were held at the Community Center in Tuba City to kickoff the planning process in June and summarize the results to date in August. Over one hundred people attended the first meeting, and over three hundred people attended the second.

In addition to written comments gathered throughout the process, the contact list for the project grew to over 870 names, which can be found in **Appendix 7.3**. Many people requested to be kept informed via mail and email of future developments, and it is strongly recommended that this list be kept, maintained, and added to as implementation efforts continue.

1.2.3 Field Survey

WHPacific, Inc., assembled three partner field teams, one assessment professional and one Navajo speaker on each team. The field teams were led by Navajo-native Don James, who has had 33 years experience leading crews, managing construction, and performing field assessments.

The field teams were trained in early June to gather Global Positioning System (GPS) and photographic data, which included assessing each building for structural integrity and signs of needed repairs and improvement, and assessing each road for surface type, condition, and shoulder type. Any additional man-made structures or features were to be noted with a GPS point and any information that could be inspected visually.

It is important to note that teams were limited to what could be assessed visually from the road. Teams did not enter private property to see all sides of a house unless invited by the resident at the time of the survey. In cases where teams were invited onto the property or into the home, teams took additional pictures and noted any information provided by the owner or tenant in a general comment field. These additional comments influenced the overall assessment of the home and other features on the property.

The criteria used by the crews to assess buildings and roads are included in the **Appendix 7.1**. Overall, the assessments included categories from very good, good, fair, poor, to very poor, based on health and safety and how much current problems would contribute to worsening conditions over time.

Field teams gathered data over the course of nine weeks, starting generally from the southern portion of the FBFA to the north, then to the remaining portions of the chapters outside the FBFA, and finally to the Tuba City town area in early August.

An expert Geographic Information System (GIS) analyst translated the GPS data into maps with associated database of information. This required an involved process for quality assurance / quality control (QA/QC) in order to eliminate duplicate road lines, spot checks of housing points against aerial photography, and other technical and database adjustments.

Information from the field teams was layered with GIS data gathered from existing agencies and departments, such as chapter boundaries from the Navajo Land Office, water collection points from the Navajo Environmental Protection Agency (EPA), and utility data from the Navajo Tribal Utility Authority (NTUA).

Existing paper maps and graphic files were converted into digital form to match the existing GIS information (i.e. georectified) in the FBFA, and infrastructure data from those maps were converted to GIS data.

The resulting GIS information of new and existing data was used to generate maps for the needs analysis for all the capital projects requested by Chapters, workshop participants, agencies, and departments, as well as those recommended by the professional field and planning teams.

The compiled GIS data, which includes maps and associated database information, is to be turned in as a deliverable at end of project to Design and Engineering Services. This Geographic Information System could well be developed into a Nation-wide tool to coordinate efforts among all departments and agencies. How that process should be structured and which agency might best serve as the repository for the database is a question to be resolved among the constituent agencies and departments, with leadership by Community Development. See **Section 5.8.1** for more details on this outstanding issue.

1.2.4 Existing Data and Plans

The first week of May, WHPacific, Inc., visited a variety of agencies and departments to request existing GIS data and plans, as well as information about current planning efforts. The request lists are included in **Appendix 7.4**, as well as a list of contacts for agency and department personnel involved in this planning effort.

Information filtered in over the course of the next four months. A full list of gathered documents is also included in **Appendix 7.4**. Capital projects from the following documents were incorporated into the planning effort, and the chapter or regional ICIP list as relevant:

- Navajo Nation Department of Transportation (NDOT) 2003 Navajo Nation Long Range Comprehensive Transportation Plan,
- IHS current and future water projects in the FBFA,
- Water Resource Development Strategy for the Navajo Nation, in draft form as of April 2008 from the Department of Water Resources,
- Navajo Health Master Plan, 2004, from IHS,
- Two studies for proposed upgrades for the Tuba City Health Care Center from the Tuba City Regional Health Care Corporation, completed in 2006 and 2008,
- A list of economic development projects for the FBFA from the Small Business Development Department in Tuba City, Division of Economic Development, and

- FBFA road projects included in the 43-Year Plan for the Updated Tribal Transportation Improvement Program approved by the Western Navajo Agency Road Committee (WNARC).

1.3 Document Purpose and Organization

1.3.1 Purpose

This document is meant primarily as a tool for Chapters, tribal entities, and individuals to implement the capital projects and programs that will help the former Bennett Freeze area to recover from over forty years of the dramatic and harmful effects of stunted growth and frozen dreams.

While an exhaustive study of the specific effects and implications of the former Bennett Freeze might be helpful for the healing process for residents struggling to come to terms with the end of the dispute and all the hardships it incurred, this planning effort was not intended to look backward but forward, to the specific actions that individuals, chapters, and the Navajo Nation at all levels can take to begin to build the communities according to the visions, goals, and rights that tribal members have for health, safety, and a high quality of life.

As the four-and-a-half month planning process could not encompass a full study of the effects of the FBFA, this document highlights the strategic actions to take moving forward. At the same time, residents and Chapters impacted by the former Bennett Freeze faced challenges and hardships unlike the rest of the Navajo Nation, and as such, a particular effort is made to analyze this additional burden and adjust the justification and recommendations for capital projects in light of these impacts.

The planning effort sought to balance long-term and short-term planning. In order to think wisely and comprehensively about building the kind of strong, health, self-sustaining communities that FBFA residents want, the planning team embraced a fifteen year visioning horizon. The nine chapter Community Land Use Plans (CLUPs) reflect this long-term vision and the short-term actions that can begin in the next six years, the horizon for the Infrastructure and Capital Improvement Plans (ICIPs) to move toward it.

In order to think strategically about how to implement the regional recovery, the planning team embraced a six-year action horizon to coincide with the Navajo Nation's cycle of ICIP funding in order to create this recovery plan.

It is important to state that this planning horizon is being assessed at a regional level for multiple needs with a bird's eye view. A recovery plan of this kind cannot provide the kind of detail needed for an implementation plan, which would be performed for a particular category of projects – for example, housing. It also cannot provide site-specific recommendations about a particular project,

which could be produced with a feasibility study, for example. A plan that tried to incorporate both the big picture from 10,000 feet up and a detailed picture from the ground would take so long to complete that it would not serve the purpose of getting projects moving.

Because this recovery plan effort included a significant amount of data-gathering, both technical information and public input, it will be able to support the next steps in the recovery process: (1) decision-making at all levels about the projects recommended by this plan and how to implement them, (2) forming the advisory groups, working groups, ad hoc committees to review and guide project planning efforts, (3) formalizing working relationships and partnerships across departments, chapters, levels of government, and agencies, (4) securing funding and political and community support for implementation, and (5) developing implementation plans for capital plan types, such as housing, infrastructure, or community facilities. These activities necessarily follow the completion of a large-scale, regional recovery planning effort.

This plan's balance of long-term and short-term planning horizons results in a productive tension about which capital projects should be included in recovery efforts, and at what time. Much of the community visions cannot easily be accomplished within a six, or even a fifteen, year span without great cost and great effort. Leadership at the local level must work closely and cooperatively with decision-making bodies at all governmental levels to ensure that the right projects proceed in the right order with sufficient resources to complete them quickly and efficiently.

Leadership at all levels must make decisions about balancing two kinds of projects:

- (1) the urgent and expedient projects that seem to make the most sense in terms of bringing the FBFA communities up to the level of other Navajo Nation communities and
- (2) the projects that serve a preventative or cultivating purpose to fulfill longer-term goals.

In some ways, this is a choice between being reactive to an area and a people in crisis with emergency measures or to embrace the opportunity to invest in the long-term health of an entire region of the Navajo Nation. Leaders reading, adopting, and implementing this plan face the choice to prioritize only health clinics, which meet the immediate needs for a population beset by diabetes, or to also invest now in recreational facilities that can prevent diabetes in the long-term for these and future generations. Leaders can invest in detention facilities or educational facilities; roads to border communities for access to jobs and retail or business incubators at the chapters to cultivate tribal entrepreneurship.

While this plan attempts to analyze and establish a needs assessment for the FBFA, the decision about what these communities need to a large extent will be a political one that depends on the commitment to invest in the future or continue to invest in band-aid measures to each immediate crisis.

The most a planning document can accomplish is to provide data and guidance that support future decision-making; it cannot and should not take the place of leadership, political decision-making, policy, and legislation.

1.3.2 Document Organization

To serve its purpose as a toolbox to implement the FBFA recovery, this document is organized around the types of capital projects and programs that Chapters, tribal entities, and individuals need to work toward.

Much of the supporting data and detailed analysis is laid out by chapter in the Community Land Use Plans (CLUPs), included in this document as digital attachments in **Appendix 7.5**. This plan emphasizes a regional approach to recovery, and projects are therefore presented and summarized by category or by year, with an emphasis on implementation. Detailed justification for projects in particular chapters is best presented in the CLUPs.

Section 2 lays out the relevant legal framework for the necessary community and regional planning efforts. This section emphasizes the laws, policies, and goals that shape what can and should be accomplished in the area of land-management, the governance structure that supports local and tribal efforts, and the tribal process by which funds are distributed to chapters and other agencies to plan, design, and construct capital projects, which are the building blocks of community and regional visions.

Section 3 explains the owner agencies and entities that can help lead, plan, fund, construct, and operate capital projects and program solutions to the issues facing the FBFA and its residents. If a Chapter is trying to implement a particular project, this section will help identify likely leads, partners, collaborators, and governing entities.

Existing conditions, issues, and needs in the FBFA can be found described where relevant in **Sections 2** and **3**. They are also summarized regionally by topic in the following **Section 1.4**.

Section 4 looks in detail at the capital project types needed in the FBFA, first what capital projects will accomplish, or the community benefit, next the recommended projects, and finally, a summary of their cost. **Section 4** ends with a recommended phased implementation approach for all projects.

Section 5 identifies those issues that cannot be solved by constructing a capital project. In fact, many of them will serve as obstacles to successfully completing projects, or even beginning them, until they are resolved. These are governance or policy issues that will require decision-making at all levels in order to reach resolution. This section is especially important because it outlines the roadblocks that will continue to stop, slow, or hinder the FBFA recovery, unless they are resolved early and collaboratively.

Through all its sections, the plan assumes that the challenges, problems, and solutions of the FBFA Recovery will require sustained effort, cooperative attitudes, ongoing accountability, continuous refinement, and flexible thinking from all levels – from individual residents to Chapter officials, from department directors to office staff, from county to federal entities, and from the Council to the President.

1.4 Former Bennett Freeze Area (FBFA) Assessment

A full account of the historic and ongoing effects of the Bennett Freeze falls outside the scope of this plan. There have been several studies and even books written about that very subject, some of which can be found in the list of resources included as **Appendix 7.4**.

Even so, an understanding of the unique challenges facing the communities in the former Bennett Freeze area is important to shaping a discussion of their future.

In putting together the priority capital projects that form the heart of this Recovery Plan, an analysis was performed to compare the condition of housing, roads, water, and power within the FBFA versus areas outside the boundary but still within the nine impacted chapters. This analysis serves as a justification for the additional funds and assistance that will be required to help the FBFA recover.

1.4.1 Methodology

As part of the FBFA Recovery Plan effort, field teams traveled to each of the FBFA chapters to visit, assess, and document residential buildings in the nine Chapters. Judging from the exterior appearance of homes, the conditions of these residences were rated from very poor to very good. As much as possible, field teams noted the presence or absence of power, water, wastewater treatment, telephone service, natural gas, and access. The location of each home visited was recorded through a Global Positioning Satellite (GPS) system, and the house's size in square feet and approximate age were estimated. When available, residents were asked a series of questions about ownership and water hauling practices.

While this information may be used in later assessment and improvement efforts on an individual basis, the main emphasis of this study was to determine a

regional sense of housing conditions, particularly the condition of those in the FBFA versus those in the Chapter but outside the boundary. In order to study this, a statistical analysis was conducted based on the field team data and compared to the U.S. Census and a recent Water Resources study.

For nine weeks the field survey teams visited and collected data on each individual building structure. The information gathered is available on maps and in tabular form in a Geographic Information System (GIS) database, which will be submitted to the Navajo Nation as one deliverable of this study. This information includes the type, condition, and age of the building, whether it seems occupied or not, its general dimensions and size, the presence of outbuildings, if any, other livestock structures, conditions of roads, source of water, wastewater system, availability of power, and a photograph of each house.

The Chapter boundaries used for the field surveys coincide with those used by the 2000 US Census, which gave the planning team the opportunity to validate the data from the field surveys and look at trends. No information collected prior to the field survey could distinguish the buildings inside the FBFA from those outside the FBFA. The combined technologies of GPS and Geographic Information Systems (GIS) mapping made this possible by recording the longitudinal and latitudinal coordinates of each structure and displaying that location on a map from the Bureau of Indian Affairs showing the latest FBFA boundary.

After the first set of public workshops, the planning team was advised to use the Chapter grazing district boundaries, which are distinct from the boundaries used by the Census, although similar. Many of the chapters felt neither boundary represented what they considered to be their service areas, but none provided maps for project use. Conducting an official survey, changing, negotiating, and adopting an agreed on set of boundaries is an important step in the recovery effort, particularly before the arrival of funds for projects.

All other maps in this plan use the grazing district boundaries for chapters.

The database created for residential building for the nine chapters and for the FBFA contains a sufficient number of buildings to allow for a valid statistical analysis. The database for those areas outside the FBFA but still in the nine chapters was not large enough to be considered a defensible comparison. While it is not possible to compare the FBFA to an the area outside the FBFA, it is possible to compare the FBFA to the nine chapters as a whole (which include the FBFA). To do a direct comparison of the effects of the FBFA on residents versus those not affected by the FBFA, a larger sample would need to be collected in an identical manner in an area completely outside the FBFA.

Given this limitation, the study did produce statistical evidence that FBFA residents have been disproportionately impacted by the freeze, even more so than the chapters as a whole, which most residents can easily see.

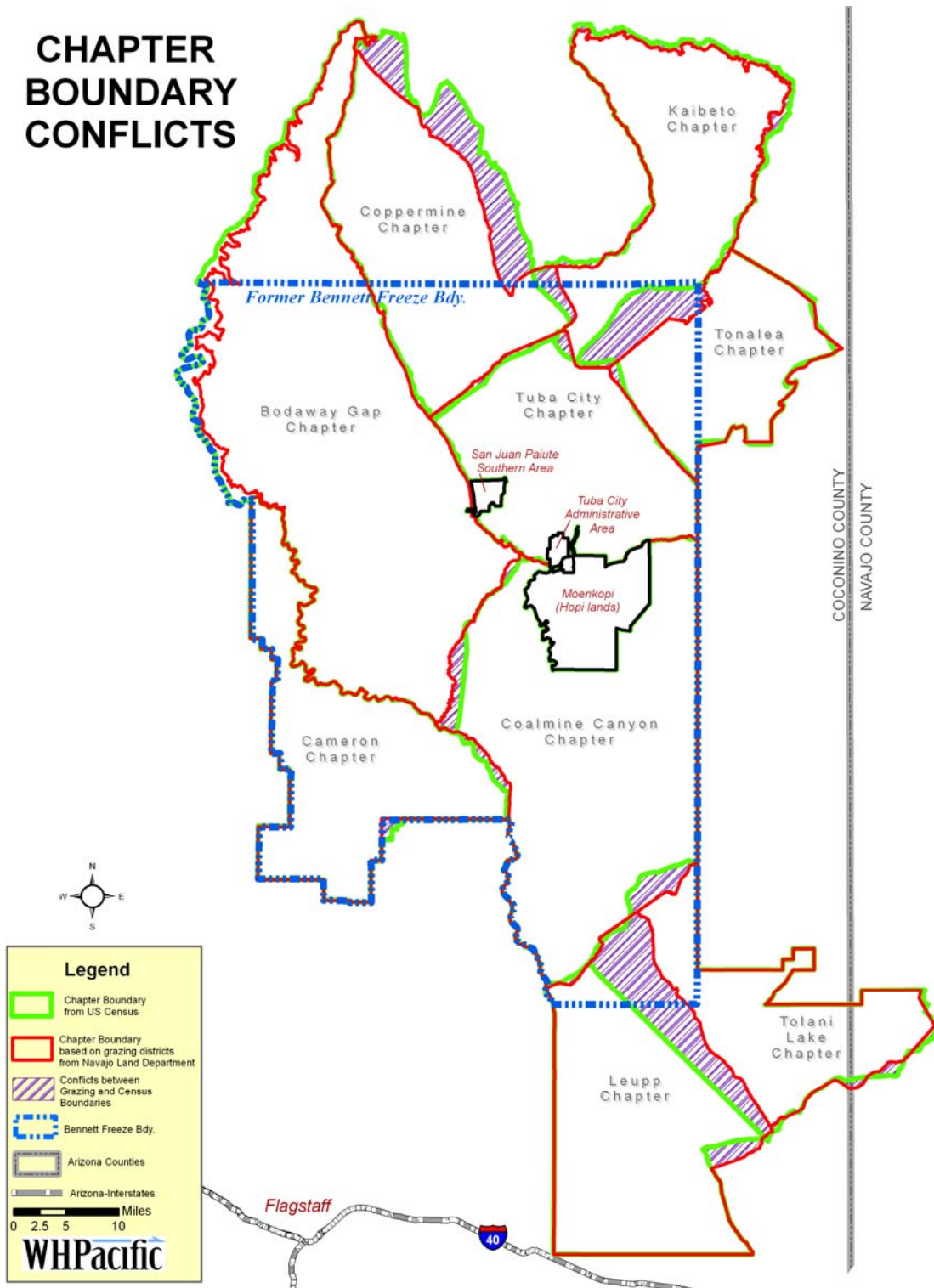


Figure 3: Overlapping Chapter Boundaries

1.4.2 Population

The field team data generated the following information about the number of occupied homes in all nine chapters, and a further analysis was able to determine how many are inside versus outside the FBFA boundary.

Houses	All	Boda way-Gap	Cameron	Coal-mine	Copper-mine	Kaibeto	Leupp	Tolani Lake	Tonalea	Tuba City
# Occupied	4172	272	316	137	191	295	388	87	398	2088
# In	1273	232	316	130	85	82	28	27	119	254
# Out	2899	40	0	7	106	213	360	60	279	1834
% In	31%	85%	100%	95%	45%	28%	7%	31%	30%	12%
% Out	69%	15%	0%	5%	55%	72%	93%	69%	70%	88%

While the field teams may not have visited or taken a GPS point for every home, the sample yields a statistically valid comparison to assume that the ratio of homes inside versus outside will remain very similar.

This plan recommends using these percentages, or similar percentages based on a statically valid same, as one way to determine how to allocate FBFA funds for projects to benefit FBFA residents, regardless of whether the project physically is located inside or outside the boundary. This method will allow the continued clustering of services, centers, and activities where they are the most accessible and have the least impact on grazing lands.

The U.S. Census was used to project future population in the FBFA. Despite the evidence that many families left the FBFA for better living or job conditions elsewhere, the Census shows steady, if slow growth in most chapters and for the region as a whole.

1.4.2.1 FBFA Historic Population

Chapter-level population data dates back to 1980. For the nine chapters affected by the Bennett Freeze, population rose steadily between 1980 and 2000.

	1980	1990	2000
Bodaway/Gap	1,238	1,649	1,837
Cameron	901	1,011	1,231
Coalmine Mesa	852	256	374
Coppermine	684	423	673
Kaibeto	952	1,529	1,970
Leupp	1,298	1,503	1,605
Tolani Lake	739	651	755
Tonalea	1,548	2,066	2,537
Tuba City	5,416	7,305	8,736
Total for all Chapters	13,628	16,393	19,718
Navajo Nation	132,052	148,983	180,462

Table 2: FBFA Growth, 1980-2000

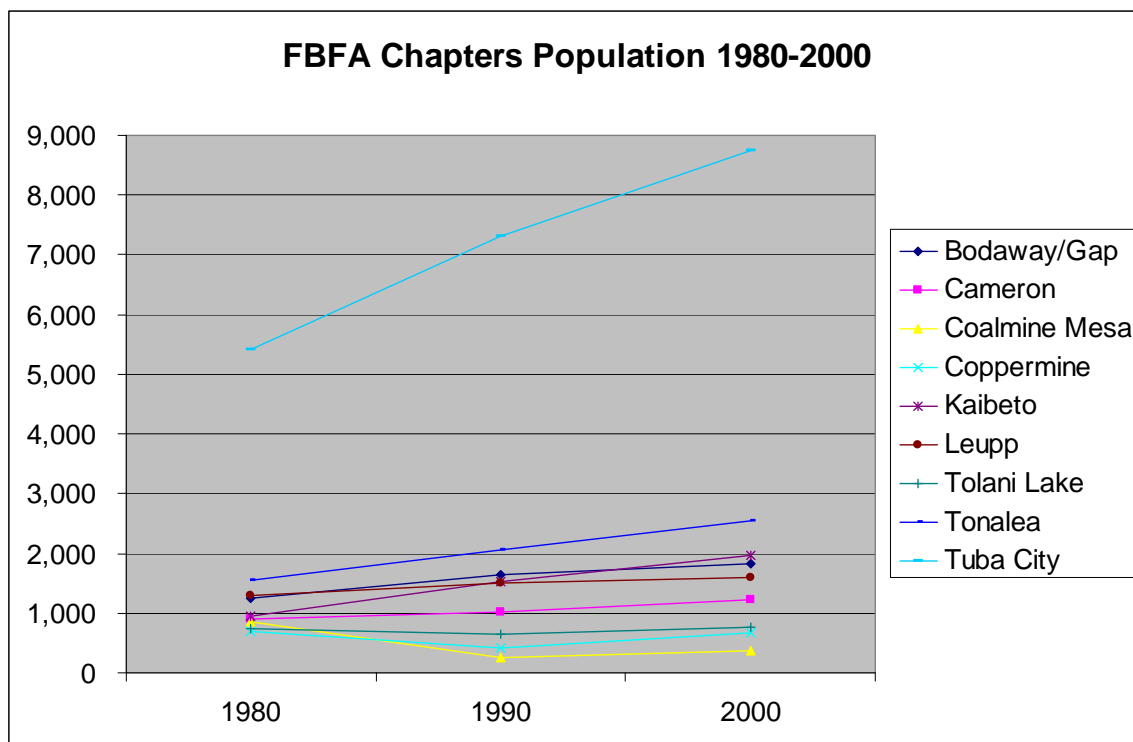


Figure 4: FBFA Chapter Population, 1980-2000

For demographic data for the FBFA prior to 1980, the U.S. Bureau of the Census published Census data for Arizona by county subdivisions. The county subdivision that most closely matches the FBFA is the Reservation Area shown on the map below.

County Subdivisions/Census County Divisions and Places

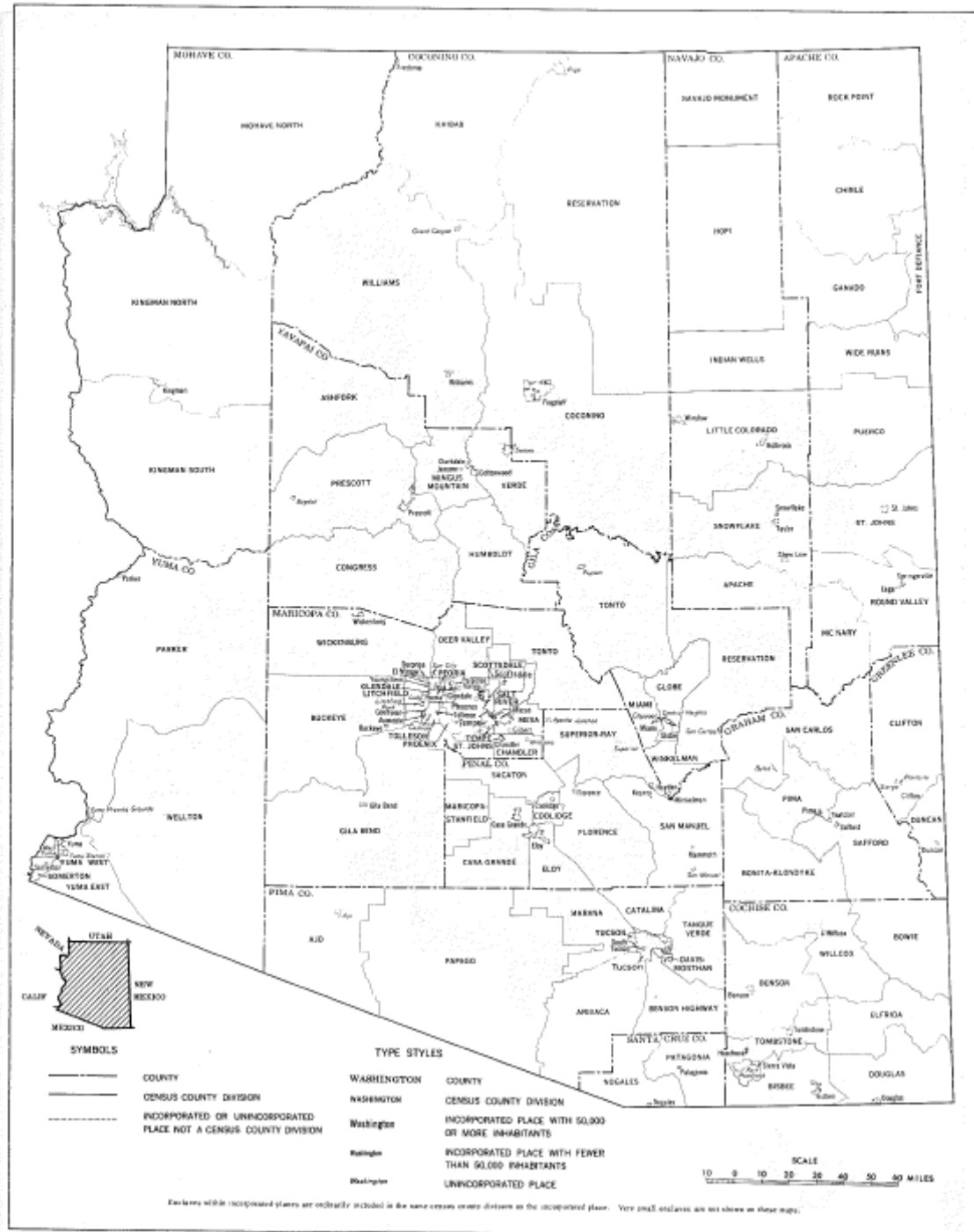


Figure 5: U.S. Census Historic "Reservation Area"

The population for the Reservation Area stayed about the same between 1960 and 1970. After 1970, the population of the area increased greatly. Between 1970 and 1980, the population increased by 68% to 17,647. Population increased by another 19% by 1990. After 1990, the population declined by 20% to 16,896 people in the 2000 Census.

Year	Total Population (without Page)
1960	10,769
1970	10,520
1980	17,647
1990	20,996
2000	16,896

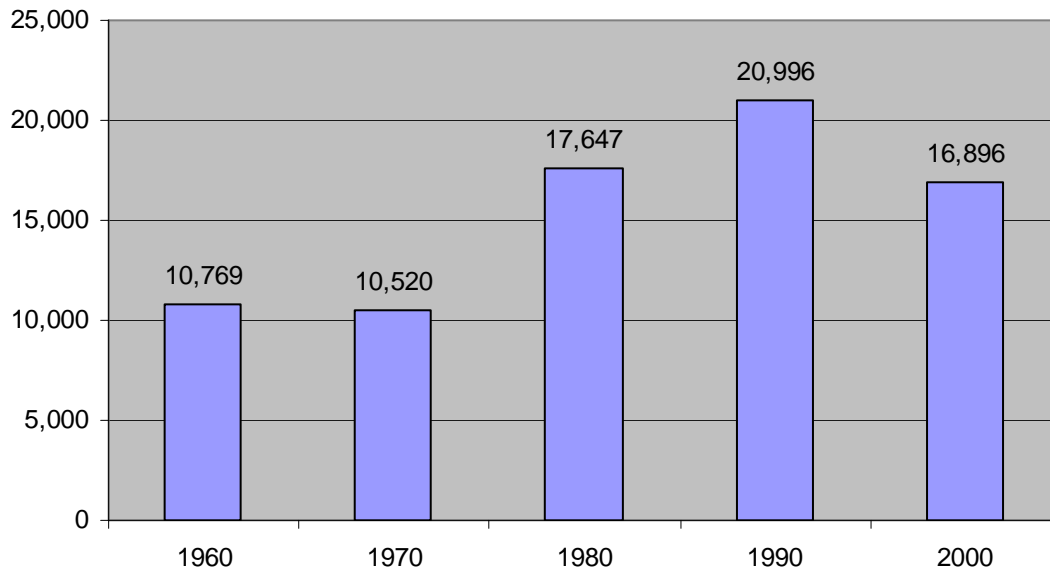


Figure 6: U.S. Census "Reservation Area" Population, 1960-2000

Absent statistical evidence for a long-term trend of population decline, the planning team used Census information to project future population, assuming that the area would continue to show the same growth trend. The analysis and recommendations included in this plan are based on these projections. As conditions improve, it is fully expected that growth rates may increase, and a periodic assessment and update of this plan's recommendations should reflect the trends on the ground as conditions change.

Chapter Population and Growth (2000 US Census)									
Chapters	Boda way-Gap	Cameron	Coal-mine	Copper-mine	Leupp	Kaibeto	Tolani Lake	Tonalea	Tuba City
2000 Census	1,837	1,231	374	673	1,605	1,970	755	2,537	8,736
2010 Population Projections	2,122	1,386	382	742	1,823	2,342	830	2,945	10,356
2020 Population Projections	2,446	1,567	399	822	2,045	2,747	923	3,419	12,002

Figure 7: Population Projects for FBFA Chapters

1.4.3 Housing

When adding all single-family residences, occupied and unoccupied, the picture of worse conditions in the FBFA begins to emerge.

Summary of Findings - Single Family Residences

	<u>All Chapters</u>	<u>FBFA</u>
<i>Single Family Residences In Survey</i>	4379	1406
<i>Percent In FBFA</i>	68%	32%
<i>Ratings</i>		
Very Poor	14%	24%
Poor	28%	38%
Fair	37%	26%
Good	12%	10%
Very Good	8%	3%
<i>Fair and Above</i>	58%	39%
<i>Fair Rating and Public Water</i>	80%	59%
<i>Fair Rating and under 25 years in age</i>	72%	68%
<i>Percentage that Meet Habitable Standard</i>	42%	23%
<i>Meets Standard, under 25 years, has power/total inventory</i>	32%	11%
<i>2020 Housing Demand</i>	6995	2001
(Regional pop of 26,370 and 3.77 occupancy)		
<i>Single Family Residences that Meet Standard</i>	1838	324
<i>New Housing Units required by 2020</i>	5157	1677
<i>Percent estimate to be scattered housing</i>	70%	70%
New Cluster Housing Units	1548	504
New Scattered Housing Units	3608	1173
Existing Cluster Housing Units	552	97
Existing Scattered Housing Units	1286	227
Very Good	8%	3%

The standard established for this analysis is similar to that used by the U.S. Census. A building is considered habitable if it is fair condition, has indoor plumbing, and is less than 25 years old. Buildings in good or very good condition are considered habitable regardless of the condition of the plumbing.

The single family residences that meet the standard in all nine Chapters total 1,838. Experience indicates that the cost to repair houses that do not meet this standard is not economically justifiable. This plan recommends replacing all residential buildings that are more than 25 years old, have been rated fair or worse, and have no functional plumbing.

It is interesting to note that the 2000 U.S. Census shows 1,965 house were uninhabitable using similar criteria. The relatively slight difference in the conclusion can be attributed to deterioration of additional houses in the eight years since the Census or a minor difference in data collection techniques. The two statistics tend to support each other and the conclusions of this analysis.

HOUSES OCCUPIED AND UNOCCUPIED

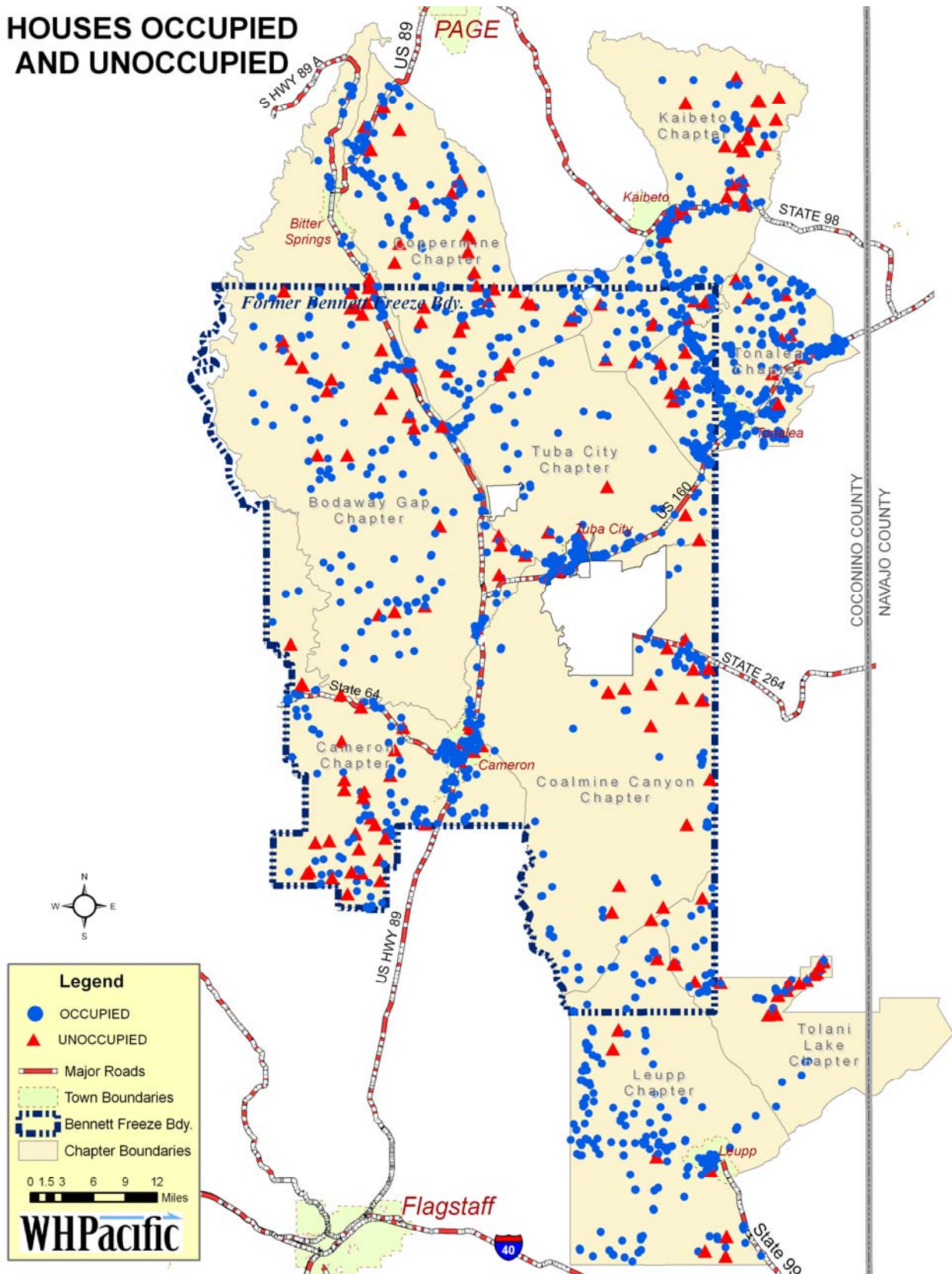


Figure 8: Housing Occupancy in the FBFA

HOUSE CONDITIONS

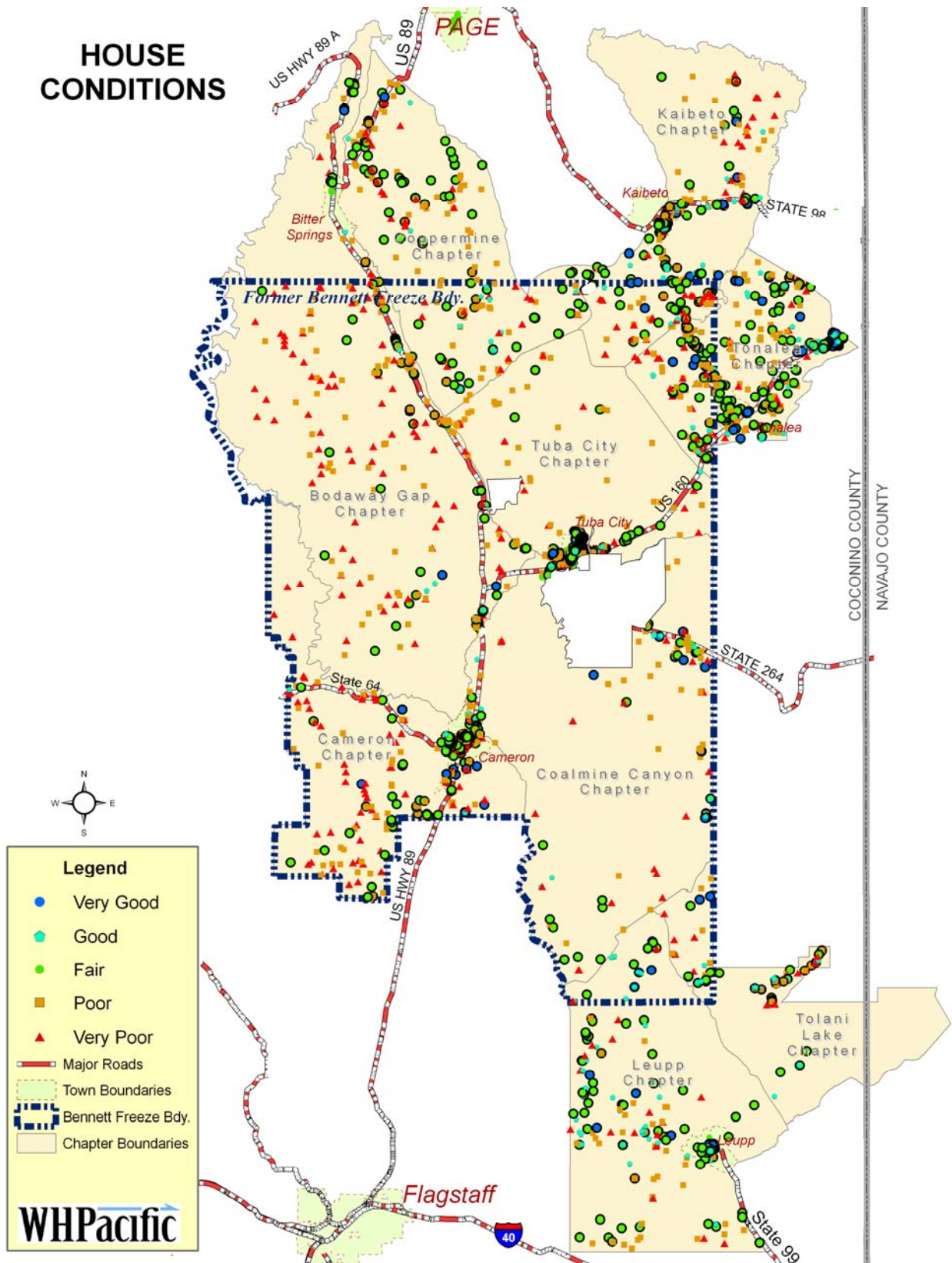


Figure 9: House Conditions in the FBFA

1.4.3 Road Conditions

While traveling to do assessments of buildings and other man-made structures, field teams also mapped and noted the condition of all roads traveled. While this was not intended as a comprehensive road inventory, the resulting map of shows the conditions of roads in the FBFA, which residents must depend on to haul water, access medical services, and most other activities.

ROAD CONDITIONS

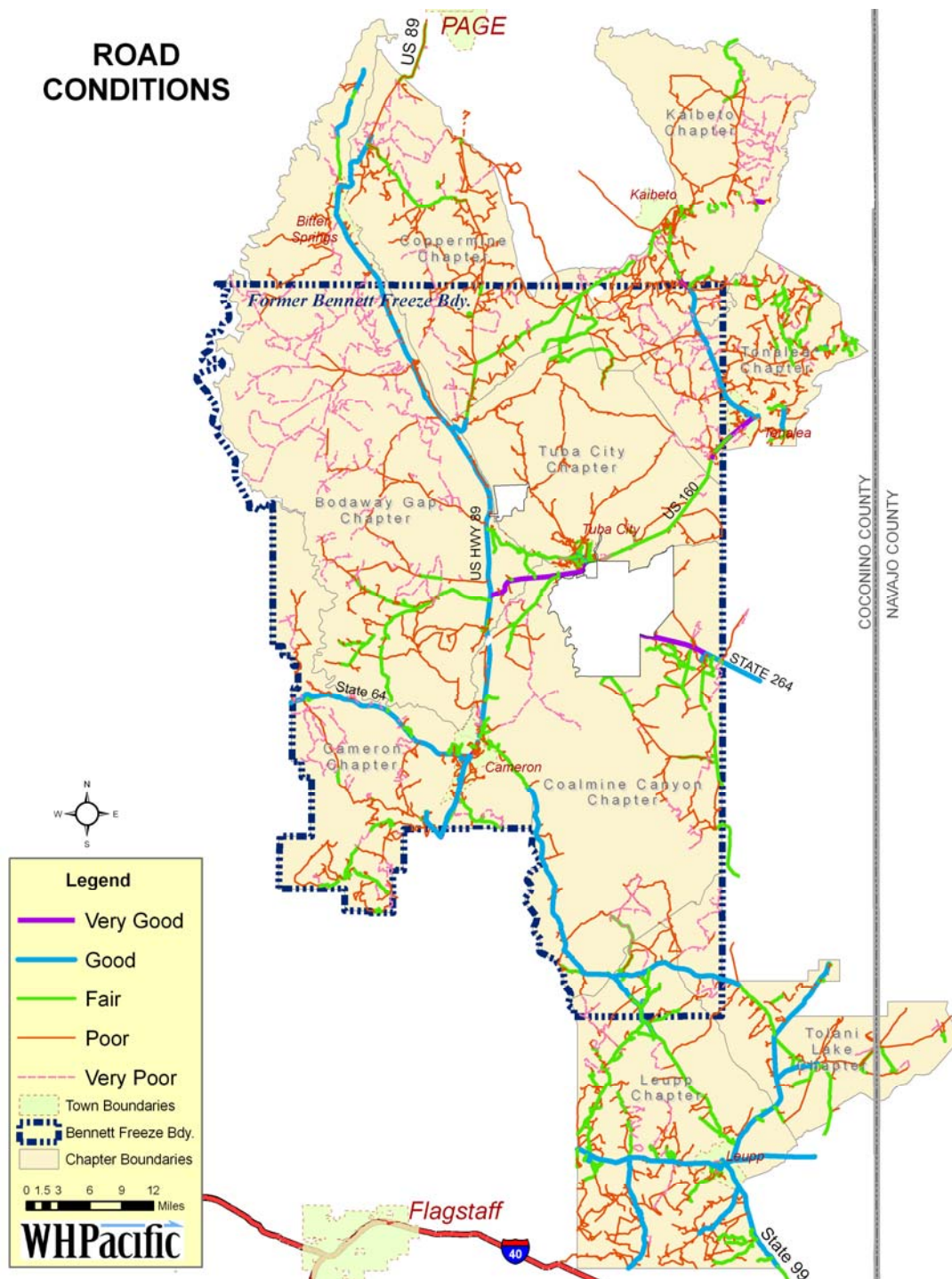


Figure 10: Road Conditions in the FBFA

1.4.4 Water Service

As much information was gathered in the field about water service as possible. Just of those homes in the FBFA whose residents were home and talked with field teams, over 307 (10%) of all occupied homes in the FBFA) are more than 10 miles away from a regulated watering point, meaning 10 percent of all FBFA

residents make almost daily round trips to haul water from a safe source. Some homes are as many as 24 miles away.

In addition, of almost 2,850 occupied homes, approximately 785 are located farther than three miles from an existing waterline, which is the point at which they become ineligible for Indian Health Services assistance for water hook-up.

WATER SUPPLY FOR HOMES

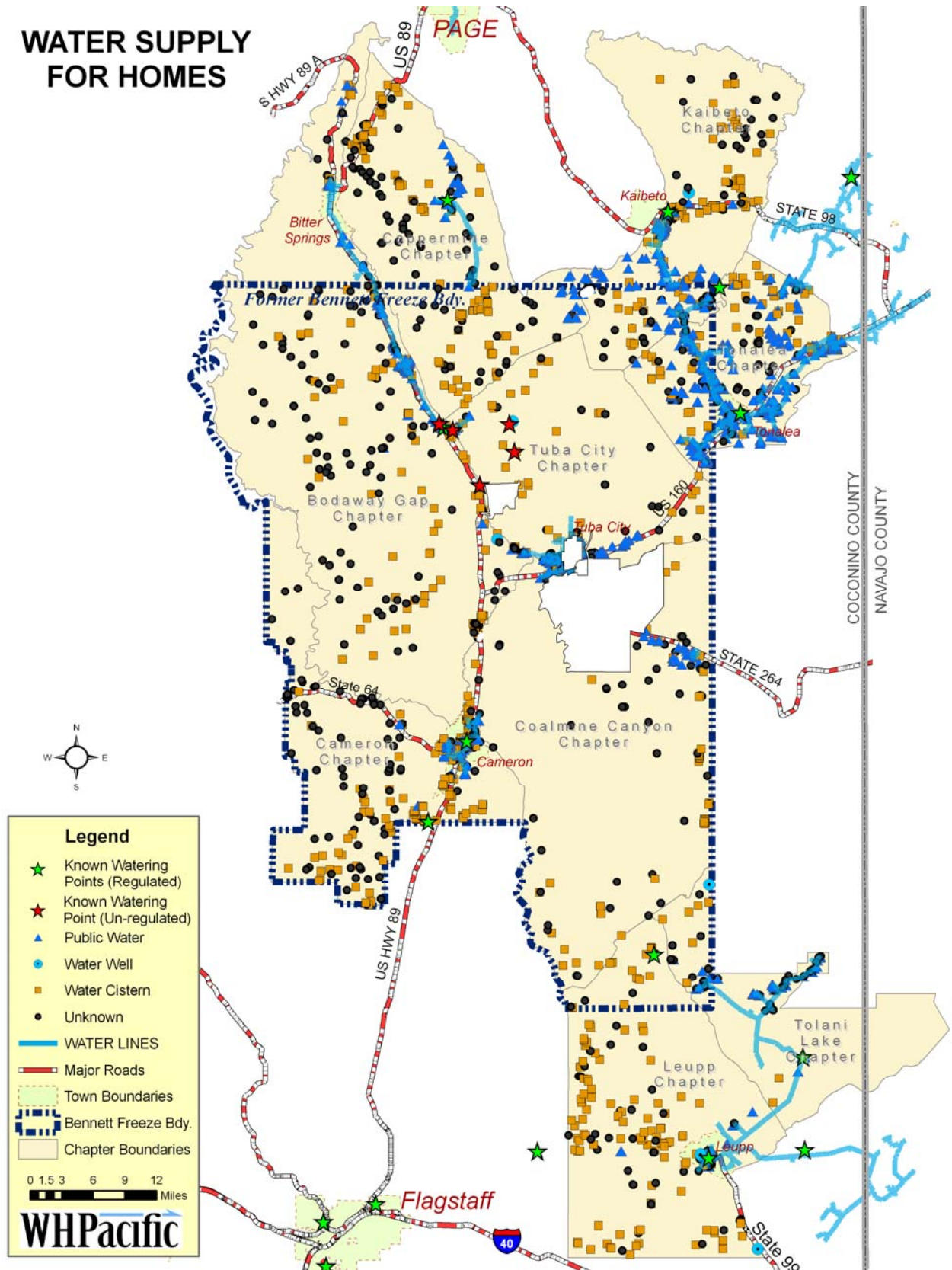


Figure 11: Water Delivery in the FBFA

1.5 FBFA Recovery

Given the unique conditions and challenges faced by the nine chapters impacted by the former Bennett Freeze, what are the touchstones by which recovery will be measured?

It is important to start with a definition of “recovery.” Having a clear vision will help determine whether the capital projects identified in this report as important are the right ones to accomplish the vision. Once these projects are completed, the vision becomes the criteria to measure their success. If necessary, the vision can help direct the next phase of capital projects to address gaps left by the first phase of projects to further the recovery.

Throughout the community participation effort for this plan, participants mentioned several overall goals that taken together form a vision of recovery for the former Bennett Freeze area. The vision described below is no more than a description of what most communities want for themselves – the chance to grow in the ways that are best for residents, with an assurance that they are protecting the health of their residents, resources, and quality of life.

1.5.1 Healthier, Safer Communities

If successful, the capital projects will help establish healthier, safer communities. Individuals will have more opportunities to improve their own health – including recreational opportunities, access to medical care, and adequate emergency response. Communities will also grow in safe, healthy ways. Growth will be directed to areas that can efficiently provide water and power. Community services and facilities will be either clustered in one area to make them easy to access or linked with adequate roads and transit systems. All residents will have the necessities of life, including clean water and adequate housing.

1.5.2 Lifelong Opportunities and Services

Capital projects must help to establish a full range of opportunities for community members at each stage of life, so that residents have the option to stay in the community their whole lives if they choose.

Education will be available from pre-school through adulthood. Training opportunities for the jobs needed in the community will be available nearby. Cultural knowledge and language will be passed on to each generation. Leadership, planning, and community responsibilities will be cultivated early in youth and throughout a person’s life.

A wide range of recreational opportunities will be available for the youngest to the oldest residents, including indoor and outdoor facilities.

Economic development will balance the needs of residents with the needs of the community. Grazing and agriculture will continue to have a viable place in the community as respected and cultural ways of life and important means of subsistence and self-reliance. Other job opportunities, commerce, and industry will be included wisely and intentionally to meet the needs of residents while protecting the natural resources and unique aspects of the community. Daycare and schools will be planned and constructed to meet the needs of young families and parents who must work outside the home.

Facilities for elderly residents will ensure that they are comfortably cared for.

1.5.3 Desired Growth Over Time

Having been stunted for over forty years, one major indicator of recovery will be whether communities have the ability and resources necessary to grow as they wish over time.

Beyond having funds available for capital projects, the recovery efforts will have succeeded if communities have the infrastructure in place for future economic and residential development. Entrepreneurs will have land available for new business ideas. Ranchers and farmers will have good land set aside for their ongoing use. Residents will have a full range of housing options to meet their needs at all stages of life and preferences for living close to community services or in remote locations, without having to sacrifice the necessities of life such as safe drinking water or power.

Buildings, roads, and infrastructure are necessary elements in a community, but they are not what makes a successful community. More important is the commitment of the community to the success of the programs conducted in the buildings and supported by the infrastructure. These programs are impossible without the active participation of community members who will enjoy the services and the agencies that provide them. Their commitment and the necessary funds to keep these programs in operation make a successful community, not simply the presence of capital projects.

1.5.4 Sustainable, Self-Sufficient Communities

Once the recovery is complete, communities will be able to grow and develop in ways that increase their sustainability and self-sufficiency over time. New facilities will be built incorporating energy-efficient materials and renewable power sources. Residences would take full advantage of solar and wind power, passive solar gain from their orientation and building materials, and rainfall for domestic use and irrigation.

Grazing and agriculture are carefully preserved and cultivated to support area residents, as well as export to nearby communities. Range management plans are updated regularly and enforced sufficiently to ensure the ongoing preservation of range land, health of animals, and protection of natural and cultural resources.

Education and leadership training ensures that residents have the full range of skills, knowledge, and resources to provide what the community needs, in terms of jobs, services, construction management, community planning, and project implementation.

2.0 Legal Framework

The successful implementation of projects to ensure the recovery of the former Bennett Freeze Area will require significant cooperation and partnerships among tribal, federal, state, and local agencies, as well as multiple departments within each. This section of the recovery plan lays out the legal framework in order to understand the purview and general operational responsibilities for each as they pertain to future FBFA capital projects.

2.1 Land Management

2.1.1 Water Resources

Water resources on the Navajo Nation include rivers, washes and aquifers. Major surface water resources within the Navajo Nation include the Colorado River and the Little Colorado River. The Colorado River is the largest source of surface water in Arizona. The Arizona Department of Water Resources estimates that 14 million acre-feet of water flow through the river every year. Navajo Nation water rights to the main stream of the Colorado River remain unquantified. Furthermore, access to Colorado River water is complicated by legal, physiographic, and environmental factors.

An estimated median annual flow of the Little Colorado River at the reservation border is 162,900 acre-feet with a median undepleted flow of 222,450 acre-feet. The erratic flow regime and high sediment load of the Little Colorado River create challenges to water development. Ongoing water rights negotiations may result in funding for critical tribal water development in this basin.

Five aquifers provide water for wells and springs throughout the Navajo Reservation: the Coconino (C), Navajo (N), Morrison (M), Mesa Verde (V), and Dakota (D) aquifers.

The northern portion of the FBFA chapters are served by the N-aquifer, and the southeastern portion of the FBFA chapters are served by the C-aquifer. They are composed of permeable sedimentary rock (mainly sandstone), and the quality of water within each aquifer varies greatly within their structures. In the deeper portions of the groundwater basins, water is generally too saline for consumption by humans or livestock. The highest quality water is generally found in the N-aquifer. The C-aquifer is estimated to store 413 million acre-feet, and the N-aquifer is estimated to store 290 million acre-feet. Although groundwater storage greatly exceeds the annual demand, only a small fraction of the groundwater in storage can be readily developed.

Water quality issues associated with abandoned uranium mines located in the Navajo Nation, including the Bodaway-Gap, Cameron, and Coalmine Canyon,

and Tuba City Chapters, have put the community at considerable health risk due to detectible levels of heavy metals and radiation.

Windmills, typically used to water livestock, are productive in the FBFA, but they are at risk for bacterial contamination from contact with livestock and vandalism due to their remoteness. There are no requirements for water quality testing, and there are anecdotal reports that some windmills may have uranium contamination, which poses a human health hazard both because of the consumption of affected livestock as well as the frequent human consumption of water from windmills in remote areas, where it may be more convenient for residents to haul water from windmills versus the nearest regulated drinking water source, up to 25 miles away.

Approximately 28 percent of households within the FBFA do not have access to municipal water systems, similar to the average for the Navajo Nation, at 30%. These families must haul water long distances for domestic use. According to the draft Water Resources Development Strategy 2008, a 2006 study by Dornbusch and Associates evaluated the cost of water hauling on the Navajo reservation, including purchase, containers, vehicles, and lost time to be the equivalent of \$43,000 per acre-foot of water, compared to \$600 per acre-foot for typical subdivision water users in the region. At \$133 per thousand gallons, this water is the most expensive in the United States, serving a population that is among the poorest.

There are 11 regulated watering points within the nine chapters impacted by the former Bennett Freeze. NTUA regulates watering points in Tonalea, Tuba City, Cameron, and Tolani Lake. The following chapters regulate their own watering points: Coppermine, Kaibeto, Bodaway-Gap, Tonalea, Cameron, Tolani Lake, and Leupp.

WATER INFRASTRUCTURE

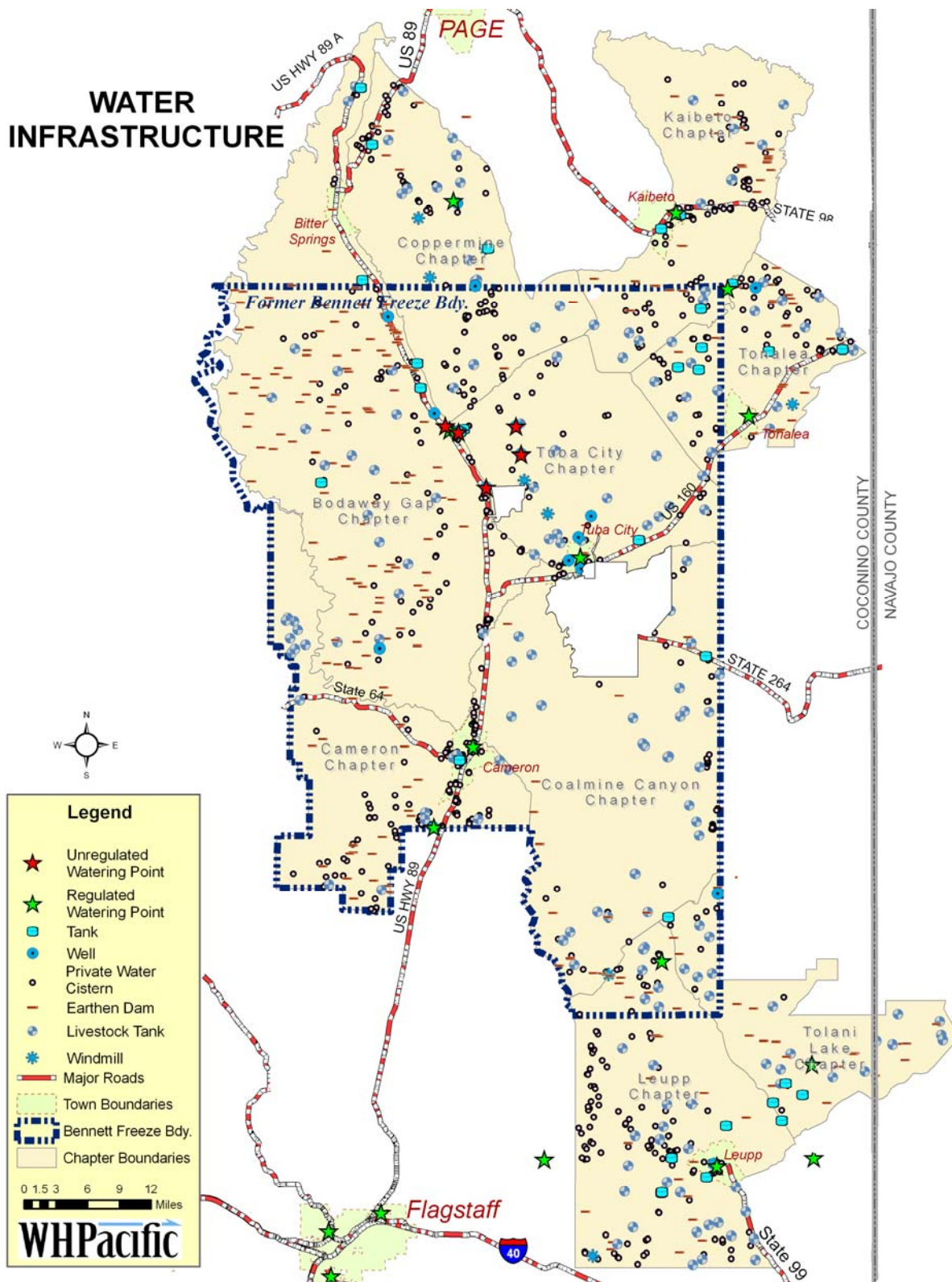


Figure 12: Watering Points in the FBFA

2.1.1.1 Navajo Nation Water Resources Department

Water issues and resource planning are managed by the Water Management Branch of the Department of the Water Resources, which is under the Division of Natural Resources. Through its four branches, described below, Water Resources is responsible for the long-term stewardship of the Nation's water resources. The department reviews proposed water projects and ensures adequate water supply. Water Resources also serves as the link between long-term water development objectives and water development proposals by those entities requiring additional water in the short-term.

Water Resources is organized into four main branches: (1) Water Management, (2) Water Code Administration, (3) Dam Safety, and (4) Technical Operations and Construction.

The Water Management Branch maintains a water resource database and Geographic Information System (GIS) and distributes hydrologic information, most importantly for groundwater wells, which is the primary data source for groundwater information on the Navajo Nation. The Water Code Administration provides data on new wells from the well drilling permits and water use permits.

The Water Code Administration is the primary water use regulator and water revenue generator for the Navajo Nation. It is responsible for the day-to-day implementation of the Navajo Nation Water Code, adopted in 1984. The Water Code Administration administers well drilling and water-use permits, engages in public outreach on Water Code issues, resolves water use disputes, provides technical information, and generates revenue for the use of water for construction, industrial, government, and commercial purposes.

The Dam Safety branch oversees construction repairs on unsafe dams, provides general maintenance and monitors existing dams, surveys land for withdrawal, and develops safety plans, emergency action plans, and early warning systems.

The Technical Construction and Operations Branch (TCOB) operates 17 public water systems, eight irrigation projects, and more than 900 windmills. This branch designs, constructs, and rehabilitates water facilities for livestock, domestic, and irrigation uses, including construction of wells, pipelines, dams, erosion control structures, irrigation systems, diversions, storage tanks, and stock-ponds. This branch also maintains construction equipment to support the construction, mechanical repair, and transportation services for the entire Department of Water Resources.

As of 2004, there were several water resource stations near the FBFA, including Dilkon, Tuba City, and Leupp.

2.1.1.2 Navajo Nation Environmental Protection Agency

The Navajo Nation Environmental Protection Agency became a separate regulatory entity within the Executive Branch of the Navajo Nation government in 1995. The NNEPA is charged with protecting human health, welfare, and the environment of the Navajo Nation. The NNEPA implements and enforces environmental laws through federal oversight from the U.S. EPA.

The NNEPA maintains four departments: (1) air toxics, (2) waste regulatory and compliance, (3) surface and groundwater protection, and (4) enforcement.

The Navajo Nation has enacted the Navajo Nation Environmental Policy Act, Navajo Nation Safe Drinking Water Act (NNSDWA), and Navajo Nation Primary Drinking Water Regulations (NNPDWR). In addition to ensuring compliance with these Navajo Nation standards, the NNEPA also implements the federal Clean Water Act through the Public Water System Supervision Program (PWSSP), Underground Injection Control Program, Water Quality Program, and the National Pollutant Discharge Elimination Systems Program.

All water resources within the Navajo Nation are under the jurisdiction of the Navajo Nation Water Code and are subject to the water management practices of the Navajo Nation. The Navajo Water Code prohibits any development within a half mile of a well or windmill and provides technical assistance in determining additional protection zones around drinking water wells.

The Navajo Nation EPA regulates all public water systems on the Navajo Nation through the PWSSP, ensuring that owners and operators of drinking water facilities provide safe drinking water to residents through inspection, monitoring, and enforcement. NNEPA also sets water quality standards through the NNSDWA and the NNPDWR.

The Navajo Nation EPA also trains and recognizes water system operators. In 2002, the PWSSP began recognizing water system operators annually based on sanitary survey inspections, compliance with the NNSDWA, and the condition of the public water facility.

Tonalea Day School was recognized in 2006 as one of the best-maintained water systems on the reservation. The Navajo Department of

Water Resources in Tuba City, AZ was recognized in 2002 as one of the most improved water systems in the Nation.

The NNEPA is also charged with helping communities to consider the environment when conducting development activities.

2.1.1.3 Public Water and Wastewater Utility Service Providers

The Navajo Tribal Utility Authority (NTUA), Indian Health Services (IHS), and the Bureau of Indian Affairs (BIA) all have responsibilities for providing public water and wastewater utility service.

These are explained in more detail in **Section 3.1**.

2.1.2 Water Demand and Supply Plans

Water availability is the sufficient condition under which development either becomes possible or cannot be supported or sustained. As such, water planning to establish demand, potential water sources and availability, and water supply is the driver of development. With water availability, development is possible; without it, it is not.

As the 2008 Water Resource Development Strategy draft states:

The lack of infrastructure, the lack of economic development and sustained poverty are closely connected. Throughout the arid southwest, and especially on the Navajo Nation, a reliable water supply is essential for jump starting and sustaining economic development.

The development plans discussed in the Recovery Plan are contingent on sufficient water planning to support them. Close coordination with Water Resources is crucial to establish the conditions under which development becomes possible in the area, whether to support current residents without access to water other than water hauling or support new residents to the area, or to support current or future businesses, industry, recreational opportunities, or community facilities.

The latest report from Water Resources that was fully adopted was completed in 2000, laying out the Water Resources Management Strategy for the Navajo Nation. This report is currently being updated, and there is a draft dated 2008 in circulation. There are two regional water supply projects included that will improve water supply in the FBFA, if implemented.

- *Western Navajo Pipeline:* appraisal level study completed as part of the North Central Arizona Water Supply Study by the Bureau of Reclamation, which is now seeking feasibility level study authority.

- *C-aquifer Leupp to Dilcon Pipeline*: Project alignment and preliminary cost estimate complete as of 2008, with further studies ongoing.

Two projects included in the 2000 Water Resources Management Strategy that would have helped serve the FBFA over the next forty years have been de-emphasized in the 2008 draft.

- *Alternative Water Supply for Black Mesa*, which was to be either a Lake Powell Peabody Pipeline or a C-aquifer Black Mesa Pipeline originally proposed in the 1999 LCR Agreements in Concept
- *Three Canyon Water Supply Project*, also proposed in the 1999 LCR Agreements in Concept.

The maps showing these project were not included in the online version of the 2000 Strategy Plan, so details about which FBFA chapters would be affected by these projects and in what ways is unavailable.

The 2008 strategy plan also includes specific plans for developing and rehabilitating local water supply infrastructure, as well as addressing small domestic and municipal systems not connected to a regional water supply project. Additionally, the 2008 draft strategies ways to improve water service delivery to uses without direct access to public water systems, provide irrigation to agricultural projects, and encourage water conservation and water reuse.

Associated with this effort, the U.S. Bureau of Reclamation conducted an assessment in 2003-2004 of the Navajo and Hopi water supply for a study area that includes the entire Former Bennett Freeze Area, among other locations.

This “Assessment of Western Navajo and Hopi Water Supply Needs, Alternatives, and Impacts” estimates water supply demand with an assumed population growth across the Nation of 1.25% and water supply alternatives for three demand scenarios – low, medium, and high.

Future development must be coordinated with Water Resources, which is currently working on a plan for needs and water use. All estimates of water availability and quantity should be investigated through Water Resources. IHS, NTUA, and BIA also have ongoing planning efforts for local water and wastewater utility service provisions, which should be incorporated into future planning efforts for the FBFA.

2.1.3 Natural Resource Management

The Navajo Fundamental Law, through Diné Natural Law, declares and teaches the sacred obligations of the Diné to protect and preserve the beauty of the natural world for future generations (1 N.N. C. s 205):

- The four sacred elements of life, air, light/fire, water and earth/pollen in all their forms must be respected, honored and protected, for they sustain life.
- The six sacred mountains and all attendant mountains must be respected, honored and protected, for they, as leaders, are the foundation of the Navajo Nation.
- All creation, from Mother Earth and Father Sky to the animals, those who live in water, those who fly, and plant life have their own laws and have rights and freedoms to exist.
- The Diné have the sacred obligations and duty to respect, preserve and protect all that was provided, for we were designated as the steward for these relatives through our use of this sacred gifts of language and thinking.
- Mother Earth and Father Sky are part of us as the Diné, and the Diné is part of Mother Earth and Father Sky. The Diné must treat this bond with love and respect without exerting dominance, for we do not own our mother or father.
- The rights and freedoms of the people to the use of the sacred elements of life and to the use of land, natural resources, sacred sites, and other living beings must be accomplished through the proper protocol of respect and offering, and these practices must be protected and preserved, for they are the foundation of our spiritual ceremonies and the Diné way of life.
- It is the duty and responsibility of the Diné to protect and preserve the beauty of the natural world for future generations.

Several federal laws are designed to protect vegetation and wildlife resources within the Navajo Reservation. These laws include the National Environmental Policy Act (NEPA), the Endangered Species Act, the Eagle Protection Act, and the Migratory Bird Treaty Act.

The federal government mandates the protection of endangered species found in the Colorado River. These species include the humpback club, razorback sucker, Colorado pikeminnow (formerly known as the Colorado squawfish), and the bonytail chub.

2.1.3.1 Biological Resources Land Clearance Policies and Procedures

Vegetation and wildlife resources are also protected by the Navajo Nation Department of Fish and Wildlife, which is within the Division of Natural Resources. The Resources Committee has oversight responsibility of the Department. Accordingly, the Resources Committee developed *Biological Resources Land Clearance Policies and Procedures*. The purpose of these Policies and Procedures is to ensure compliance with federal and Navajo Nation laws that protect plant and animal species and their habitat. The Policies and Procedures

will direct development to areas where impacts to wildlife and/or habitat will be less significant.

The Policies and Procedures determine if a development project will require a Biological Evaluation. According to the Policies and Procedures, a Biological Evaluation:

- Documents impacts that a proposed project may have on biological resources;
- Must consider direct, indirect, short-term, long-term, and cumulative impacts from actions that are dependent on, or are clearly related to the proposed development;
- Must have Department concurrence that the evaluation of the impacts to wildlife resources is accurate;
- Contains accurate information about the location of development, including but not limited to legal description, distance to landmark, and a 7.5' USGS topographic quadrangle map.

Additional information regarding a Biological Evaluation is available from the Navajo Nation Department of Fish and Wildlife and should be consulted prior to any development.

The Policies and Procedures include maps that designate six Wildlife Areas across the Navajo Reservation. Various restrictions apply to each area with regard to development activity and the protection of biological resources. Each of the six Wildlife Areas are outlined and described below. Development criteria for each Area are available in the Policies and Procedures and can be obtained at the Department of Fish and Wildlife.

Area 1: Highly Sensitive Area

This area contains habitat for endangered and rare plant, animal, and game species, and contains the highest concentration of these species on the reservation. The purpose of this area is to protect these valuable and sensitive biological resources to the maximum extent possible.

Little or no development is recommended. A Biological Evaluation must be performed for any proposed development in this area.

Area 2: Moderately Sensitive Area

Buffering and location restrictions are placed on development in this Area due to the high concentration of rare, endangered, sensitive, and game species.

A Biological Evaluation must be performed for any proposed development in this area.

Area 3: Low Sensitive Area

The fewest restrictions are placed on development due to the low and fragmented concentration of species.

Small scale development to serve the private needs of individuals, such as home site development and utility lines can proceed without a Biological Evaluation. All other development requires a Biological Evaluation.

Area 4: Community Development

This area refers to developed communities that do not support sensitive habitat.

A Biological Evaluation is only required if the proposed development could have significant impacts outside of the community or if a certain species is known to exist in the community.

Area 5: Biological Preserve

These areas contain excellent, or potentially excellent, wildlife habitat and are recommended by the Department for protection from most human-related activities, and in some cases recommended for enhancement. The Department may designate additional Biological Preserve Areas in the future; however, only a few currently exist.

Any development within this area must be compatible with the purpose of the management plan for the area, if available.

Area 6: Recreational

These areas are used for recreation and include fishing lakes, camping and picnicking, and hiking trails.

2.1.3.2 Navajo-Hopi Intergovernmental Compact to Resolve Former Bennett Freeze Area Dispute

The Intergovernmental Compact between the Navajo Nation and the Hopi Tribe, signed in 2006, contains provisions to protect sacred ceremonial sites and springs, access corridors to and from such sites, gathering locations for minerals used in ceremonies, and sacred species habitats, including Golden Eagle, hawk, and plants used for ceremonial purposes, in the FBFA.

The Compact also recommends that the U.S. Fish and Wildlife issue a permit limiting the number of Golden Eagles each Hopi tribal member can take in a year to 18 while a study is conducted about the Golden Eagle population and habitat in the FBFA.

The Compact limits the number of hawks any Hopi tribal member can collect in the FBFA to 12 without applying for and obtaining a permit from the Navajo Nation.

The Hopi tribe must report once a year, no later than September 30, the number of Golden Eagles and hawks collected in the FBFA, including the general location taken and the condition of the animal. Exact locations of nests or other confidential or sensitive information is protected and does not have to be shared.

Hopi religious practices specifically require access to and along the Hopi Salt Trail and from Hopi villages to the Grand Canyon. Navajo religious practices require the ability to construct shelters and other structures at religious sites. The Compact requires Navajo or Hopi members or extended families to give five days notice to the land-owner prior to erecting a structure, whether intended for habitation or to degrade naturally, as well as notice of how many individuals will be participating in a ceremony, if the number exceeds 20. If a structure was intended to degrade naturally, it may not be removed, even by the landowner. If a structure was meant for habitation, it must be removed within five days by the ceremonial user. If it is not removed, the landowner can remove it.

The exact locations of sacred sites, corridors, gathering sites, and habitats are kept confidential. Each tribe desires to maintain the secrecy of the exact location of the sacred places of its members to the greatest extent possible. Neither tribe is required to notify each other at any time the location of any sacred site. The Compact provides a permanent, irrevocable, non-exclusive, prepaid conservation easement for sites that are mapped in exhibits to be shared only with elected officials and relevant staff at either the Navajo Nation or Hopi Tribe.

According to the Compact, the Navajo Nation must provide written notice and copy of requests for development on lands within 800 meters of any area listed on Exhibit C before approving or authorizing the proposed activity.

The restrictions on development do not include entry and use for religious purposes, livestock grazing, or use and maintenance of existing roads, fences, corrals, fields, wells, springs, and livestock watering tanks.

The Hopi Tribe must provide agreement in writing before the Nation can grant approval. The Compact does not specify a time limit for response. The exact procedure to trigger these protections is not outlined in the Compact. It is assumed that the Navajo Historic Preservation

Department has access to the exhibits and has included this procedural check for development within the formerly disputed lands in the FBFA.

While each tribe must take responsibility to prevent members from violating the provision of the Compact, if any structure is erected, the landowner can remove it within 90 days of the date on which it receives notice of the violation.

The Compact establishes a Joint Commission to administer and facilitate the Compact and resolve future disputes. Each tribe appoints two members, at least one of whom should be familiar with the religious practices and members of that party. The fifth member of the Joint Commission is to be a neutral person, skilled in dispute resolution, who has previously served as a judge of a tribal, state, or federal court and is not a member of either party. The neutral fifth member of the Joint Commission shall be appointed with by agreement of both tribes or by the Chief Judge of the United States Court of Appeals for the Ninth Circuit, in the event of no agreement. The Compact sets forth the procedures for initiating a request for arbitration and allows the Commission to establish its own rules and procedures, to be consistent with the terms of the Compact.

The Compact also calls for establishing a Joint Golden Eagle Advisory Board to collect data on Golden Eagle population and recommend measures to protect habitat and encourage population growth. The Board's recommendations are to be submitted to the Fish and Wildlife Department for wildlife management, Community Development for land-use planning, and NNEPA for environmental protection, although recommendations are not binding.

The Compact also requests a Golden Eagle Study from the U.S. Fish and Wildlife Service within the FBFA lands.

The Intergovernmental Compact is included in the **Appendix 7.6**.

2.1.3.3 Mineral Resources

The Navajo Nation Division of Natural Resources has a Department of Minerals that oversees resources such as copper and coal, which are both found in the FBFA.

In 1988, the Navajo Nation Council approved the Navajo Reclamation Plan and Code in compliance with Title IV of the Surface Mining Control and Reclamation Act of 1977 (SMRCRA) to establish the Navajo Abandoned Mine Lands (AML) Reclamation Department, within the Division of Natural Resources.

Navajo Nation Archaeology Department (NNAD) assists other tribal, state and Federal agencies in enforcing tribal and Federal antiquities protection laws. NNAD works with tribal rangers from the Department of Resource Enforcement to document and protect endangered sites from looters and vandals.

The Bureau of Indian Affairs (BIA) Natural Resource Program oversees soil and water conservation as part of its task to help manage livestock and range resources.

The nine chapters in the FBFA have had the mixed blessing of containing valuable natural resources that have been mined, milled, and developed to varying extents over a long period of time.

This history in itself could, and probably should, be the focus of its own study. The history of uranium mining, in particular, has had long-lasting, negative impacts on the land, water, and health of residents since its beginning in the 1940s and lasting into the 1970s.

Coalmine Canyon, Cameron, Bodaway-Gap, and Tuba City have especially borne the brunt of its effects, including ongoing airborne, or downwind, contamination from test pits that have still never been closed or remediated, groundwater contamination of 1.5 and 3 billion gallons in the N-aquifer that will be remediated for years to come, and surface water contamination that affects livestock and humans from livestock consumption.

A summary paper on a disposal site in Tuba City – originally the site of uranium milling and since 2002, the site of ongoing, active remediation for the groundwater contamination of the N-aquifer – is included in the **Appendix 7.7**. The site is 6,000 feet northwest and approximately 300 feet above the Moenkopi Wash, which is used by both Navajo and Hopi residents for stock watering and irrigation. Evidence of contamination of surface water has not been found.

Clean-up at this site is regulated by the Uranium Mill Tailings Radiation Control Act (UMTRCA) passed by Congress in 1978 (Public Law 95-604). The U.S. Department of Energy (DOE) was tasked with remediating these sites under standards set out by the U.S. Environmental Protection Agency in Title 40 *Code of Federal Regulation* (CFR) Part 192, which governs the cleanup of contaminated ground water at the processing sites. The U.S. Nuclear Regulatory Commission general license for UMTRCA Title I sites is established in 10 CFR 40.27.

See more detail in **Section 3.5.4**.

2.1.4 Grazing and Agriculture

2.1.4.1 Grazing

In collaboration with the Navajo Nation Department of Agriculture, the Bureau of Indian Affairs (BIA) regulates the grazing of livestock on Indian lands, including all lands within the boundaries of the Navajo Reservation held in trust by the United States for the Navajo Tribe. The Navajo Nation has sole responsibility and authority for enforcement. The BIA acts as technical advisor and mediator when issues arise.

The current grazing regulation system, developed in 1944, divided the Navajo Nation into 19 Range Management Districts. The Navajo Nation currently has 20 grazing districts, which are organized by agency.

Each grazing district, also called Land Management Districts, has one District Grazing Committee composed of one grazing officer elected from each certified chapter in the district to serve a four-year term. District Grazing Committees are established within the Executive Branch of the Navajo Nation. The Grazing Management Office under the Department of Agriculture, part of the Division of Natural Resources, provides technical assistance to district grazing committees.

The Resources Committee of the Navajo Nation council is the Central Grazing Committee. The Office of Hearings and Appeals now reviews decisions made by District Grazing Committees concerning land boundary issues, grazing rights, and fencing disputes. This does not include public projects that include easements. Further appeals go to the Navajo Nation Supreme Court. The Resource Committee also provides legislative oversight for the Division of Natural Resources, District Grazing Committees, Farm Boards, and all other matters affecting Navajo Resources.

In addition to their main duties to enforce grazing permits with the help of tribal rangers from the Department of Resource Enforcement, grazing officials have several duties as part of the District Grazing Committee, which reports administratively to the Grazing Management Office and remains directly accountable to the local chapter.

- Organize and conduct educational activities, branding, livestock disease prevention programs, surplus livestock removal, and assisting the BIA with the annual livestock tally count
- Coordinate and explain the Navajo Grazing Regulation and related laws, explain transfers, subletting, and canceling of grazing permits, cooperate with the Navajo Nation, BIA, and USDA conservation

programs and planning, including prioritizing major range improvements and developments

- Assist and advise permittees in proper land and livestock management practices and range land improvement at formal grazing committee meetings and official and unofficial visits
- Advise and inform people of the proper procedures to follow in transferring, canceling, and recommending probate of grazing permits.
- Cooperate with permittees, BIA, and Division of Natural Resources personnel on range water development, revegetation, erosion control, and range management, including determining individual and group range use areas, settling range use disputes, and developing range management and improvement plans.
- Serve as mediators in adjusting and settling range difficulties.
- Preserve forage, land, and water resources within the Navajo Nation and build up those resources where they have deteriorated.
- Protect grazing interests of permittees from the encroachment of non-Navajo individuals or businesses and non-permittees.
- Maintain the Land Management Districts and recommend changes in District and Unit boundaries to the Resources Committee and the Navajo Nation.
- Maintain livestock inventory data from various disease and parasite control programs and branding activities.
- Recommend to the BIA grazing rights for individual livestock owners.
- Recommend approval of transfer of grazing permits and land use permits.
- Recommend construction of fences and Range Management Units or removal of unauthorized existing fences and to regulate the construction of all dwelling, corrals, and other structures within a half-mile of permanent livestock waters such as springs, wells, and deep reservoirs.

All livestock grazed on the Navajo Reservation must be authorized by a grazing permit issued by the BIA Superintendent based upon the recommendations of the District Grazing Committee.

Grazing permits were originally issued in 1943 for a particular area of land and with a particular limit of livestock, based on sheep unit equivalents. The BIA has this permit history mapped. These permits

were handed down to family members, subdivided for multiple ancestors, and sometimes transferred to different grazing districts as residents married or moved. Today, the Navajo Nation has approximately 14,000 permittees.

Ranching and sheep herding have been a major occupation and, more importantly, a way of life for Navajo residents for many years. These activities have strong connections to the customs and cultural heritage of Chapter members. A majority of the land on the Nation is used for grazing by residents with homes on remote, scattered homesites or occasional family clusters.

Regulations governing grazing use are contained in the Navajo Grazing Regulations (CFR 25, Part 167). The purpose of these regulations is to preserve land and water resources on the Navajo Nation and rebuild deteriorating resources. These regulations also have the following objectives:

- Adjust the number of livestock to the carrying capacity of the range to preserve the health and sustainability of livestock on the Navajo Nation.
- Secure increasing responsibility and participation of the Navajo people, including tribal participation in all basic policy decisions, in the sound management of grazing lands.
- Improve livestock through proper breeding practices and the maintenance of a sound culling policy.
- Establish range units to promote conservation, manage development, and guide effective use of range resources.

While all grazing use on range units is regulated by grazing permits, it is important to note that grazing permits cannot be enforced by grazing officials at the chapter level, beyond administrative remedies and due process, such as issuing warnings for non-compliance and generally using Ké, the Navajo Way to show respect and right relationship. Once a grazing officer builds a case after multiple warnings, they submit their information to the Navajo Nation Division of Natural Resources Department of Resource Enforcement. Tribal rangers then either work with the Nation's tribal prosecutor to bring the matter to court and/or ask the BIA to cancel the grazing permit, which is a privilege and not a right. Several Supreme Court decisions surrounding such cases have left the most extreme enforcement actions ambiguous. The BIA does not acknowledge that it has the authority for such action, and the Navajo Nation, tasked with enforcement, cannot cancel the permits, which fall

under BIA's trust responsibility. See **Section 5.7.1** for more details about governance and policy implications.

Overstocking and overgrazing continues to threaten the viability of grazing over time. Grazing permits, first issued in 1934, were based on a total Navajo Nation population of only 35,000 people. Today, grazing permits are still in great demand, yet the Nation has grown to over 200,000 people, and the land on which grazing can occur has shrunk due to development and growth.

Range management units were first established in the 1960s. The BIA reports that many are heavily overgrazed. As an advisory agency only, the BIA is not able to enforce grazing limits; it can only monitor range use. Carrying capacity has only been studied once, in 1937. The existing range management units were based on a 1943 carrying capacity.

The Navajo Grazing Management Office works with elected grazing officials at each chapter to try to regulate livestock limits at the local level through administrative remedies and Ké, or the Navajo Way. The Grazing Management Office also encourages cattlemen associations and other community and regional efforts to manage land with a more comprehensive approach, versus relying on each individual grazing permittee with 10 sheep.

Range management plans are highly recommended for all range management units. These should include a plan of operation, carrying capacity, range condition, and precipitation data. Grazing officers are to submit regular status reports about livestock education, herd health, and range land and update the range management plans as needed.

The former Bennett Freeze Area chapters are governed by the BIA Navajo Western Agency, Branch of Natural Resources. The latest grazing information may be limited to a report compiled in 1999, *Western Agency Grazing Compliance Report 1999*.

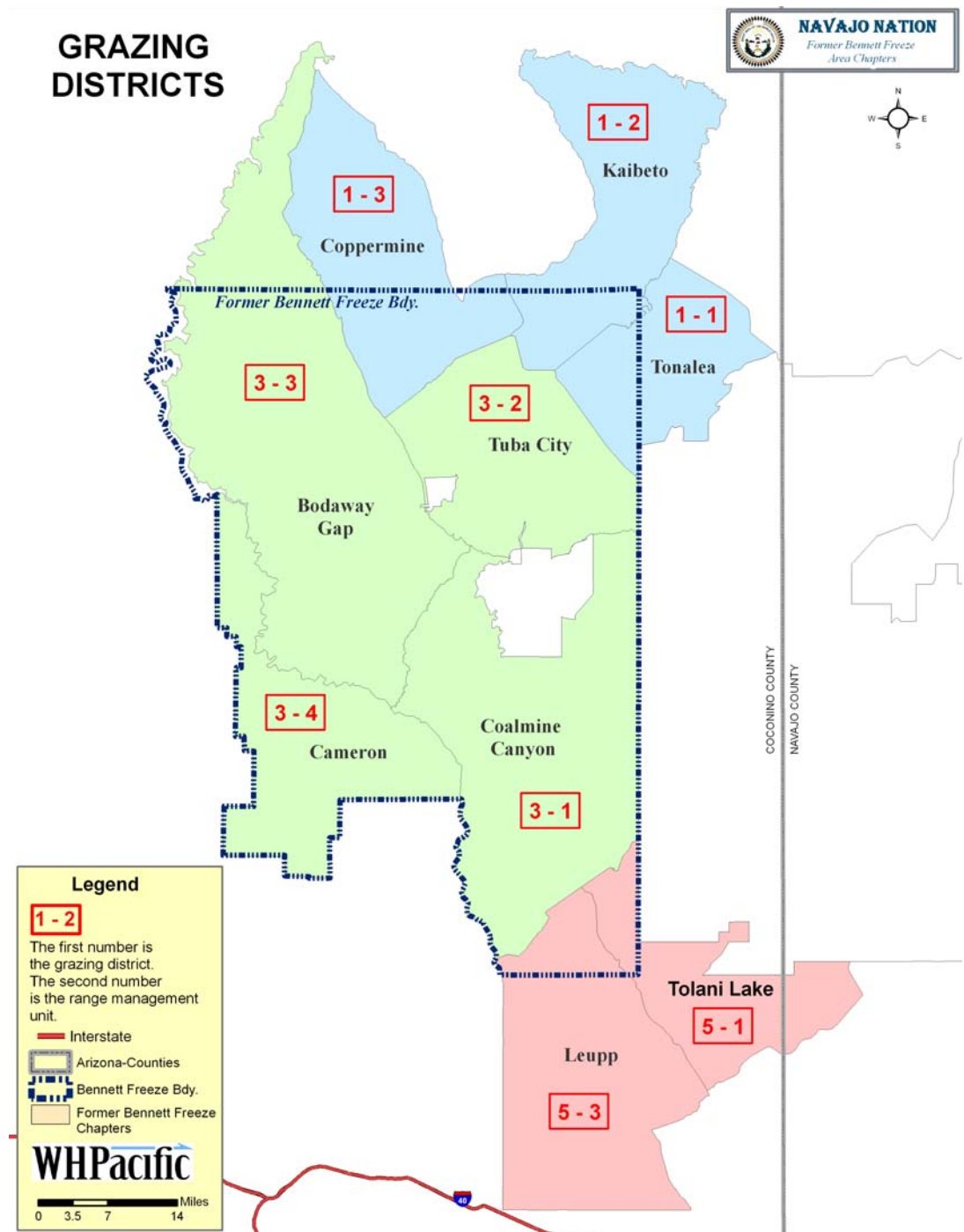


Figure 13: Land Management Districts

Coppermine, Kaibeto, and Tonalea are in Land Management District 1. Bodaway-Gap, Tuba City, and Coalmine Canyon are in District 3. Cameron is in District 3, and Leupp and Tolani Lake are in District 5. Cameron lists itself as part of Land Management District 2 in its chapter profile, last edited in 2004.

Chapter	Grazing District	Range Management Unit (RMU)
Bodaway-Gap	3	3
Cameron	3	4
Coalmine Canyon	3	1
Coppermine	1	3
Kaibeto	1	2
Leupp	5	3
Tolani Lake	5	1
Tonalea	1	1
Tuba city	3	2

Source: Department of Agriculture, Grazing Management Office Directory

According to the Department of Agriculture, grazing permits within the FBFA were canceled at some point in time, with no method established for how previous permit holders could reinstate them. The BIA and U.S. Department of the Interior are working to establish eligibility criteria within the Navajo Partitioned Lands (NPL). Permit holder records should be available through the Grazing Management Office.

2.1.4.2 Agriculture

Around 1962, the Navajo Nation assumed responsibility for many irrigation facilities. Prior to that date, U.S. federal agencies, primarily the Bureau of Indian Affairs, had responsibility for managing these systems.

The water user association development program was initiated to manage irrigation systems more sustainably. The goal of the program was to initiate a gradual process of (1) transferring the management of irrigation systems from tribal government control to local irrigation community control and (2) encouraging the development of more sustainable irrigated agriculture.

Farm boards to oversee major irrigation projects were established by the Resources Committee of the Navajo Nation Council, which serves as the oversight committee for the Division of Natural Resources. Under Navajo Nation law, farm boards are responsible for (1) overseeing agricultural land use permits and (2) encouraging and coordinating agricultural improvements in their respective geographical areas. Monthly reports are submitted to the Division of Natural Resources. The BIA provides technical assistance.

As of 1990, farm board members became elected officials. These three-member farm boards are chartered through their local chapters. A farm board can be composed of multiple chapters or districts, but no chapter can have more than one farm board. In order to form, the land proposed to be governed by a farm board must be one of the following:

- Near a lake or reservoir
- Near a river or perennial stream
- Near a runoff location or in a region with high amounts of precipitation that can sustain viable farm crops

There is only one farm board operating in the FBFA. The Western Agency Farm Board in District 3 includes Bodaway-Gap, Cameron, Coalmine Canyon, and Tuba City Chapters.

The Navajo Nation Department of Agriculture, within the Division of Natural Resources, provides planning, coordination, and management of agricultural programs, policies, regulations, and conservation programs. Its mission is to revitalize the Navajo rural economy to promote self-sufficiency. The Department of Agriculture administers the Tribal Ranches Program, Grazing Management Office, and Navajo Veterinary Program.

Irrigation systems for agriculture are provided and maintained by the Department of Water Resources through its Technical, Construction and Operations Branch.

2.1.5 Land Conservation

All land not specifically designated for development or preserved in perpetuity is assumed to be used for grazing, as a cultural and traditional way of life and a predominant activity to sustain people in remote areas. Development policies support clustering community facilities in areas with existing development to minimize the footprint of built environment and maximize natural and grazing lands.

The Navajo Historic Preservation Department (HPD) is responsible for implementing and enforcing both federal and tribal protections for cultural properties that support the conservation of land.

2.1.5.1 Cultural Properties – Federal Protections

With the passage of the National Historic Preservation Act (NHPA) in 1966, Congress made the federal government a full partner and a leader in historic preservation. Section 106 of the NHPA (36 CFR Part 800) granted legal status to historic preservation in federal planning, decision making, and project execution. The purpose of Section 106 is to avoid

unnecessary harm to historic properties from federal actions. Section 106 requires all federal agencies to take into account the effects of their actions on historic properties (either listed on the National Register of Historic Places or eligible for listing), and provide the Advisory Council on Historic Preservation with a reasonable opportunity to comment on those actions and the manner in which federal agencies are taking historic properties into account in their decisions.

The National Historic Preservation Act (NHPA) requires federal agencies to ensure that tribal values are taken into account as part of the nation's preservation program. Both the NHPA and the implementing regulations for Section 106 of the Act (36 CFR Part 800) require federal officials to consult with tribal governments about federal undertakings that may affect places of concern to a tribe both on and beyond tribal lands. The two amended sections of the NHPA that have direct bearing on the Section 106 process on tribal lands are Section 101(d)(6)(A), which clarifies that historic properties of religious and cultural significance to Indian tribes may be eligible in the National Register, and Section 101(d)(6)(B), which requires federal agencies, in carrying out their Section 106 responsibilities, to consult with any Indian tribe that attaches religious and cultural significance to historic properties that may be affected by an undertaking.

The NHPA established a relationship between the federal government and the states through State Historic Preservation Officers (SHPO) appointed by the governor of each state to administer a statewide preservation program, comply with Section 106, and support state and local preservation interests and priorities. In 1992, the U.S. Congress adopted amendments to the NHPA that allow federally recognized Indian tribes to take on more formal responsibility for the preservation of significant historic properties on tribal lands. Specifically, Section 101(d)(2) allows tribes to assume any or all of the functions of a SHPO with respect to tribal land. In accordance with Section 101(d)(2), the Navajo Nation HPD has formally assumed the responsibilities of the SHPO on Navajo tribal lands.

2.1.5.2 Cultural Properties – Tribal Protections

According to the Navajo Nation Policy to Protect Traditional Cultural Properties, developed by the Navajo Nation Historic Preservation Department in 1991, a traditional cultural property is defined as a property “eligible for inclusion in the National Register because it is associated with cultural practices or beliefs of a living community that (a) are rooted in that community's history, and (b) are important in maintaining the continuing cultural identity of the community.”

Policies outlined in the Navajo Nation Policy to Protect Traditional Cultural Resources apply to projects proposed on Tribal, federal and state public lands. The policies also apply to private land with the consent and cooperation of the land owner. In all cases, any proposed development should include consultation with the Navajo Nation Historic Preservation Department to review the applicable policies and procedures to avoid damaging the cultural resources of the Navajo Nation.

The Navajo Nation maintains a Register of Cultural Properties to protect cultural resources. Many types of material objects and physical places are considered cultural resources, such as sweat lodges, pray offering sites, burial sites, ceremonial sites, and other landmarks. The Navajo Nation Historic Preservation Department does not reveal the locations of sensitive cultural sites due to the potential for vandalism, robbery, and the need to protect privacy.

The Cultural Resources Protection Act places authority for Navajo historic preservation decisions with the Navajo Nation via the Historic Preservation Department.

The HPD does maintain paper maps that identify cultural resources and “areas of avoidance” – cultural, religious, or traditional areas used or reserved for ceremonial purposes. Development proposals must be cleared by HPD as not impacting these sites. It is unclear how sites are nominated or communicated to the HPD for protection.

While keeping the location of sites confidential does help to protect them, there is a general loss of knowledge of these sites at the local level. Participants in community workshops throughout the FBFA in the summer of 2008 explained that knowledge of local sacred sites is held by elderly and traditional residents. In many cases, this knowledge is not being passed on to younger generations.

At the chapter level, the Community Land Use Planning Committees (CLUPC), charged with determining the status of land and identifying sites for new development, are often planning without the benefit of knowledge of existing cultural resources. In order to receive input from HPD, they must submit proposed locations for projects one by one to have them cleared for development purposes.

The Navajo Nation Archaeology Department (NNAD), within the Division of Natural Resources, provides technical assistance concerning legal requirements for compliance with Federal, state and tribal historic preservation and antiquities legislation. NNAD is uniquely able to provide expert services regarding Traditional Cultural Properties

(TCPs). NNAD also provides technical review and input on proposed tribal or Federal statutes concerning the protection and enhancement of the archaeological and cultural resources in and around Navajo land.

NNAD and HPD work closely together. The Archaeology Department does the fieldwork, including archaeological surveys – looking for signs of Anasazi sites, old Navajo homes, sacred sites, or burial grounds. It prepares technical reports that describe findings about cultural sites and locations and makes recommendations for how to protect any cultural resources found. The Historic Preservation Department reviews the technical reports and issues archeological clearances and permits in coordination with other regulatory offices.

2.1.6 Land Determination

The Local Governance Act empowers Chapters to determine plans for land status at the local level as part of the Community Land Use Plan. Otherwise, all land is considered held in trust as tribal land, and all land not leased for a particular purpose or designated as forest or cultural property to be preserved in perpetuity is considered grazing land and falls under the jurisdiction of the Land Office.

2.1.7 Land Status

The Navajo Nation is composed primarily of trust land, which cannot be owned, bought, or sold. Instead, land is leased to a user for a period of years, whether for use as residences, businesses, or community facilities.

All tribal members are entitled to a homesite lease, which must meet the approval of the Chapter and receive archaeological, environmental, and survey clearances before being issued a homesite lease for one acre.

The Navajo Land Office has primary responsibility for recording land use across the Navajo Nation. It keeps records on titles, grazing permits, Geographic Information System (GIS) data, homesite leases, business leases in some cases, surveys, and BIA roads. The Land Office finalizes Navajo Nation land lease agreements and processes applications for proposed projects to be sure they comply with tribal and federal laws, regulations, and policies. This project review can grant permission to survey, permit to drill, right-of-way, service line agreement, sand and gravel permits, land withdrawal agreements, field clearance for business sites, temporary construction easements, and other leases on the Navajo Nation.

The Community Land Use Planning Committee (CLUPC) at each chapter has the responsibility to maintain accurate maps of current land use as well as plan future land use. These maps should be contained in the Community Land Use

Plan (CLUP), which should be updated every five years or so. These plans reflect the intentions of the community and are adopted by resolution by the Chapter Councils, but they do not have legally binding status on the designation of land use. Land withdrawal coordinated through the Land Office is the process that legally establishes land use on the Navajo Nation.

2.1.8 Flood Protection

2.1.8.1 U.S. Army Corps of Engineers

The U.S. Army Corps of Engineers is authorized by Congress to provide flood protection, environmental stewardship, and civil works construction on the reservation.

Although flooding often occurs on the Navajo Reservation, no federally sponsored flood control projects using the authority granted to the U.S. Army Corps have been constructed.

2.1.8.2 Navajo Nation Department of Water Resources

The Navajo Nation Department of Water Resources is working with the U.S. Corps of Engineers to develop a work plan to address numerous flood control issues on the Navajo Reservation. The first phase is expected to identify the Probable Flood Prone Areas on the reservation, delineate the 100-year flood plan maps for seven growth areas, and prepare a flood design manual.

2.2 Governance

2.2.1 Chapters

The Navajo Nation governmental structure relies on strong local governance at the community level. Local governance occurs through entities called “Chapters,” which are geographically subdivided populations of tribal members. Each of the Navajo Nation’s 110 chapters is centered near a population center.

The Navajo Nation Council passed the Local Governance Act (Title 26, NNC) in April 1998 to authorize more local powers and authority to the local Chapter Governments.

The purpose of the Local Governance Act is to recognize governance at the local level. Through adoption of this Act, the Navajo Nation Council delegates to Chapters governmental authority with respect to local matters consistent with Navajo law, including custom and tradition. This Act clearly defines the executive and legislative functions of the Chapter as well as the duties and responsibilities of Chapter officials and administrators consistent with the Navajo Nation's policy of "separation of powers" and "checks and balances."

Enactment of the Local Governance Act allows Chapters to make decisions over local matters. This authority, in the long run, will improve community decision-making, allow communities to excel and flourish, enable Navajo leaders to lead towards a prosperous future, and improve the strength and sovereignty of the Navajo Nation. Through adoption of this Act, Chapters are compelled to govern with responsibility and accountability to the local citizens.

Local powers are authorized once the Chapters develop their own Policies & Procedures for Fiscal, Personnel, Procurement, Property, and Records Management, and then obtain governance certification after passing a field audit by the Office of the Auditor General.

The Local Governance Act enables tribal members to vote on local economic development issues, such as the granting of home and business site leases within the community. Though chapters have significant power in the community with planning and development, the ultimate authority legally remains in the hands of the Navajo Nation Council.

A Local Governance Act outlines a procedure for these chapters to become even more fully self-sufficient, first by creating and adopting a community land-use plan (CLUP), then by implementing a five-step system of financial accountability and management, and finally becoming certified, which carries with it two major benefits: (1) the ability to contract directly with outside funders and contractors instead of going through the Navajo Nation departments and (2) the right to receive a portion of gross tax receipts generated within the

chapter in lieu of those going to the Navajo Nation in return for a yearly chapter budget.

While five of the chapters in the former Bennett Freeze area have their Community Based Land Use Plan certified (Cameron, Coalmine Canyon, Coppermine, Leupp, and Tuba City), only Tuba City has completed the financial management system certification portion of the process in order to receive gross receipts taxes directly. As such, there is a disincentive for Tuba City and neighboring chapters to work together on projects to improve regional economic development. As long as all taxes are shared among chapters, there is a larger incentive to cooperate to improve everyone's budget allowances. On the other hand, improvements in revenue in one area of the Navajo Nation are spread out over all 110 communities, which can also prove as a disincentive to each community to work hard, when many don't see an appreciable benefit.

In addition, there is an inherent tension in the system of government that encourages strong local governance while maintaining strong central control at the National level.

Chapters are made up of three elected officials – President, Vice President, and Secretary/Treasurer and one full-time Chapter Services Coordinator who manages the chapter house office and staff, as well as being the main liaison for the community, and is paid by and accountable to the Local Governance Support Center (LGSC), a division of Community Development. The Chapter may also hire additional staff as needed, to be paid from the operating budget.

2.2.2 Tuba City

As a formally certified chapter, Tuba City has adopted its own system of governance at the local level. Instead of the typical Chapter set-up, Tuba City is made up of the Council of Naat'aa, with the same elected officials as other chapters and up to six other Council members, and an appointed Atsilasdai Executive, known in the other chapters as the Chapter Services Coordinator. The Tuba City Council calls itself the Council of Naat'aanii.

The Atsilasdai Executive is responsible for the following tasks:

- Executing the laws and ordinances of the chapter
- Appointing and removing department heads and other officers, clerks, and assistants
- Negotiating contracts for the chapter subject to the approval of the council,
- Recommending the nature and location of improvements in the chapter
- Ensuring that all terms and conditions are faithfully kept and performed and communicating any violations to the council

- Preparing the chapter budget to submit to the council for approval

2.2.3 Navajo Nation

Window Rock, Arizona is the Navajo Nation capitol. Since 1989, the Navajo Nation has governed itself using a three-branch system of government – the Executive, Legislative, and Judicial – with a balance of responsibilities.

2.2.3.1 Executive

The Executive Branch is headed by the President and Vice President. Elected officials serve a four-year term by the popular vote of the Navajo people.

In order to implement the laws passed by the legislative branch, the Executive Branch includes sixteen divisions responsible for carrying out the work required to efficiently and comprehensively provide for the health and wellbeing of the Navajo Nation and its members. In alphabetical order, these are:

- Department of Justice
- Land Commission
- Division of Community Development
- Division of Economic Development
- Division of Education
- Division of Finance
- Division of General Services
- Division of Health
- Division of Human Resources
- Division of Natural Resources
- Division of Public Safety
- Division of Social Services
- Navajo EPA
- Office of Management & Budget
- Tax Commission
- Water Rights Commission

The President of the Navajo Nation appoints the executive directors of these programs, who in turn hire necessary staff.

Descriptions of many of these divisions are included in the relevant sections below.

2.2.3.2 Legislative

The Legislative Branch is comprised of 88 members called council delegates or the Navajo Nation Council. Legislators serve a four-year term and are elected by the registered voters of all 110 chapters, the smallest administrative units of the Navajo Nation.

There are 10 council delegates representing the FBFA chapters. Bodaway-Gap, Cameron, and Coppermine share two delegates. Kaibeto and Tonalea each have their own delegate. Tuba City and Coalmine Canyon share four delegates. Tolani Lake and Leupp share two delegates.

SHARED DELEGATES

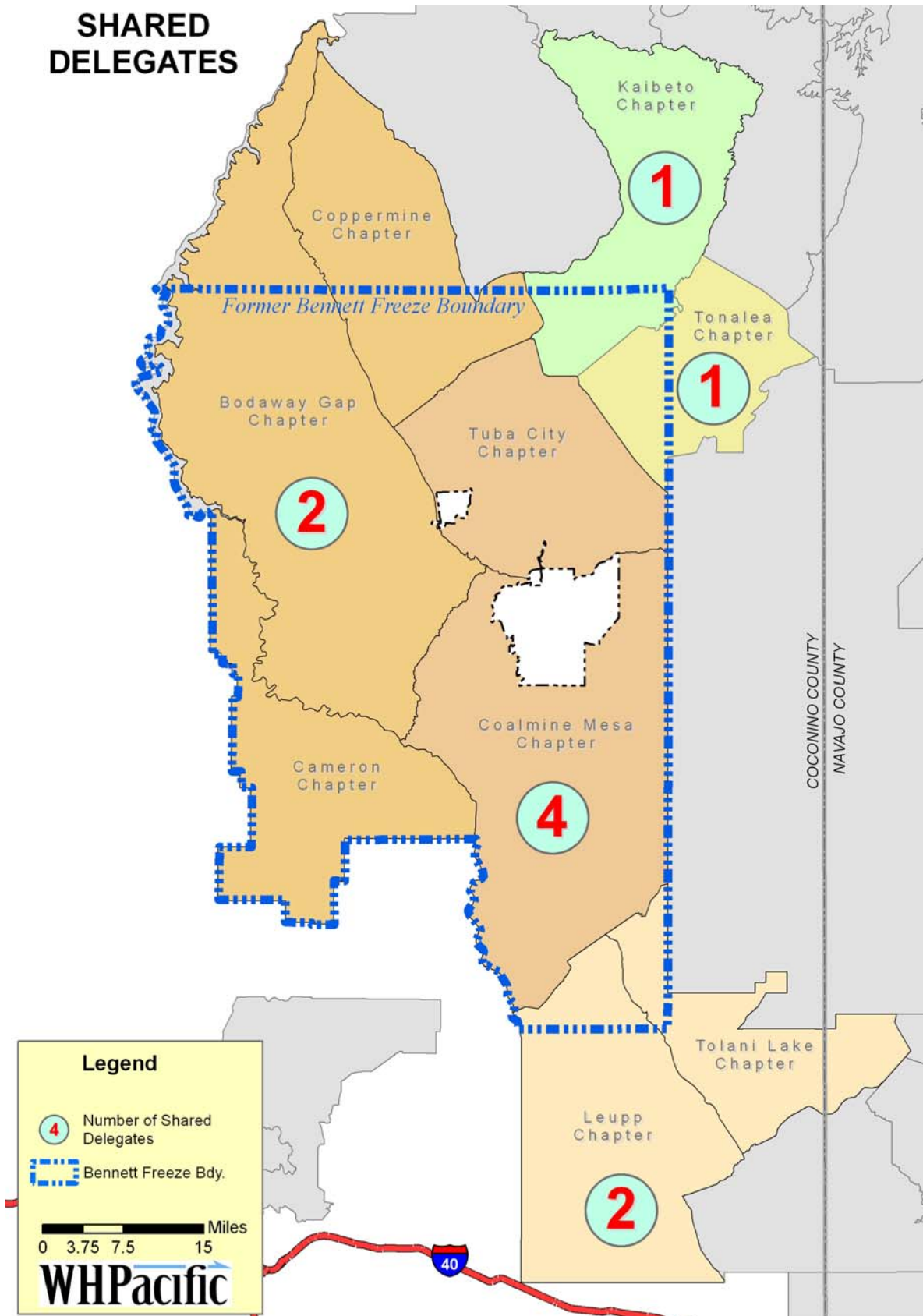


Figure 14: FBFA Chapter Council Delegates

The Council also has standing committees focused on providing leadership in particular areas. The Transportation and Community Development Committee (TCDC) is particularly relevant to this planning effort, as it sets direction not only for chapter certification in particular, but also policies and recommendations for community development in general.

2.2.3.3 Judicial

The Judicial Branch is headed by the Chief Justice of the Navajo Nation, appointed by the President, and confirmed by the Navajo Nation Council.

The Judicial Branch operates regional district offices. The Tuba City Judicial District includes the following services and programs:

- Court Administrator
- District Court
- Family Court
- PeaceMaker Division
- Probation Services
- Drug Court
- Casa Program

2.3 Infrastructure & Capital Improvement Project (ICIP) Management

The Division of Community Development has the responsibility to plan comprehensively for the physical needs of communities throughout the Navajo Nation. Its departments work together to plan, fund, design, and construct the buildings, facilities, parks, and roads that are the building blocks of all communities.

The Capital Improvement Office (CIO) is responsible for reviewing capital project requests from chapters and agencies. A capital project is defined as any long-lasting item that can be purchased for more than \$5,000, including planning and design services, construction and repair, and costs associated with the land withdrawal process.

Design and Engineering Services (DES) is responsible for the planning, design, compliance review, and construction for most buildings and facilities on the Navajo Nation, whether built for a chapter, an agency, department, program, or a governmental entity. It coordinates with the CIO and other departments within Community Development responsible for constructing other types of projects, such as the Navajo Department of Transportation, which plans, designs, and constructs roads.

The CIO and DES are currently collaborating to update a new system for chapters, agencies, and others to request capital funds and submit Infrastructure and Capital Improvement Plans (ICIP) online. It would also serve as a project implementation and delivery tool. This system would be able to track projects from the initial proposal, through tracking funds as they come in, managing projects as they are put out for bid and through construction, tracking them as inventory once they are complete, requesting and completing repairs as needed, and finally, retiring the capital items when they become obsolete. As such, this system is intended as “cradle-to-grave” project tracking – from the initial idea through the end of the item’s life cycle.

The new tracking system is called WIND – Woven Information of Navajo Data. In addition to providing maximum control and oversight over project tracking and management, the system is also intended to support a more regional approach toward project planning and community development.

The ICIP system that WIND is intended to replace gave almost equal status to every entity requesting funds – whether a chapter or the Western Agency, for example. The new system considers requests in the context of the regional agencies. In this way, regional coordination and cooperation is encouraged and can be supported financially.

WIND is expected to roll out in 2008, and Chapters should be inputting their capital projects into the ICIP through the WIND system for the next budget process in March 2009.

In a typical schedule, chapters are to develop and complete their ICIPs between May and August, when they are submitted to the Agency LGSC. The LGSC convenes its Capital Outlay Committee to review projects and compile an agency ICIP between August and November. The CIO reviews the Agency ICIPs and compiles the Navajo Nation CIP between November and February, which is submitted to TCDC in February. TCDC submits its final recommendations to the Navajo Nation Council in April for a final approval vote in May.

2.3.1 Chapter Responsibilities

Initial planning, maintenance, and ongoing operation of community facilities, community parks, and local recreation facilities and opportunities are the responsibilities of the Chapter.

Chapters have primary responsibility for identifying capital project needs and priorities. The Chapter initiates the planning process through conducting or requesting a needs assessment to determine whether existing resources are sufficient for proposed activities, or renovations, expansions, or replacements are needed, which would all be considered capital projects.

Once the need for a capital project is established, the Chapter, through its Community Land Use Planning Committee (CLUPC), proposes a location and initiates the process to withdraw the land for the specified purpose.

If a feasibility study has not been conducted up to this point, it is often performed to help determine the scope and program of the project and decide on the best location. Land surveys, archaeological clearances, and an Environmental Assessment (EA) – all necessary elements of the land withdrawal process – can be performed as part of a feasibility study. A feasibility study itself can be considered a capital project and can be requested as part of the chapter's Infrastructure and Capital Improvements Plan (ICIP) submitted yearly to the CIO through WIND.

WIND incorporates a system of priorities for each project year. These priorities should be generated through community input and discussion among residents and elected officials. Priorities should also match the Community Land Use Plan (CLUP). If they do not, one or the other must be addressed and updated accordingly as an ongoing process.

Once the capital projects take shape as ideas, chapters or others completing their ICIP can request a cost estimate from DES based on square footage, linear mile, or other unit costs. Individual chapters, agencies, and departments are responsible for inputting request into WIND for review and approval by the CIO and final approval by Council for funding.

One of the final steps in the WIND submission process is to obtain the necessary chapter council resolution(s). After the submittal is complete, the Agency LGSC checks all project requests for completeness and convenes an Agency Capital Outlay Committee, made up of a TCDC representative, Property Management representative, and LGSC representative. This committee reviews and prioritizes projects, compiles the agency CIP and submits it to the CIO.

The ICIP that is submitted to WIND is a full six year plan for capital projects needed for development. The capital funding is allocated for only the next fiscal year.

For those projects that receive funding, or projects completed in previous years, the WIND system can be used as either a project management tracking program or an inventory tracking program, as chapters are also responsible for updating their own building and facility inventories.

Chapters are also responsible for obtaining project permits and clearances in coordination with Design and Engineering Services, which is responsible for the design and construction portion of projects.

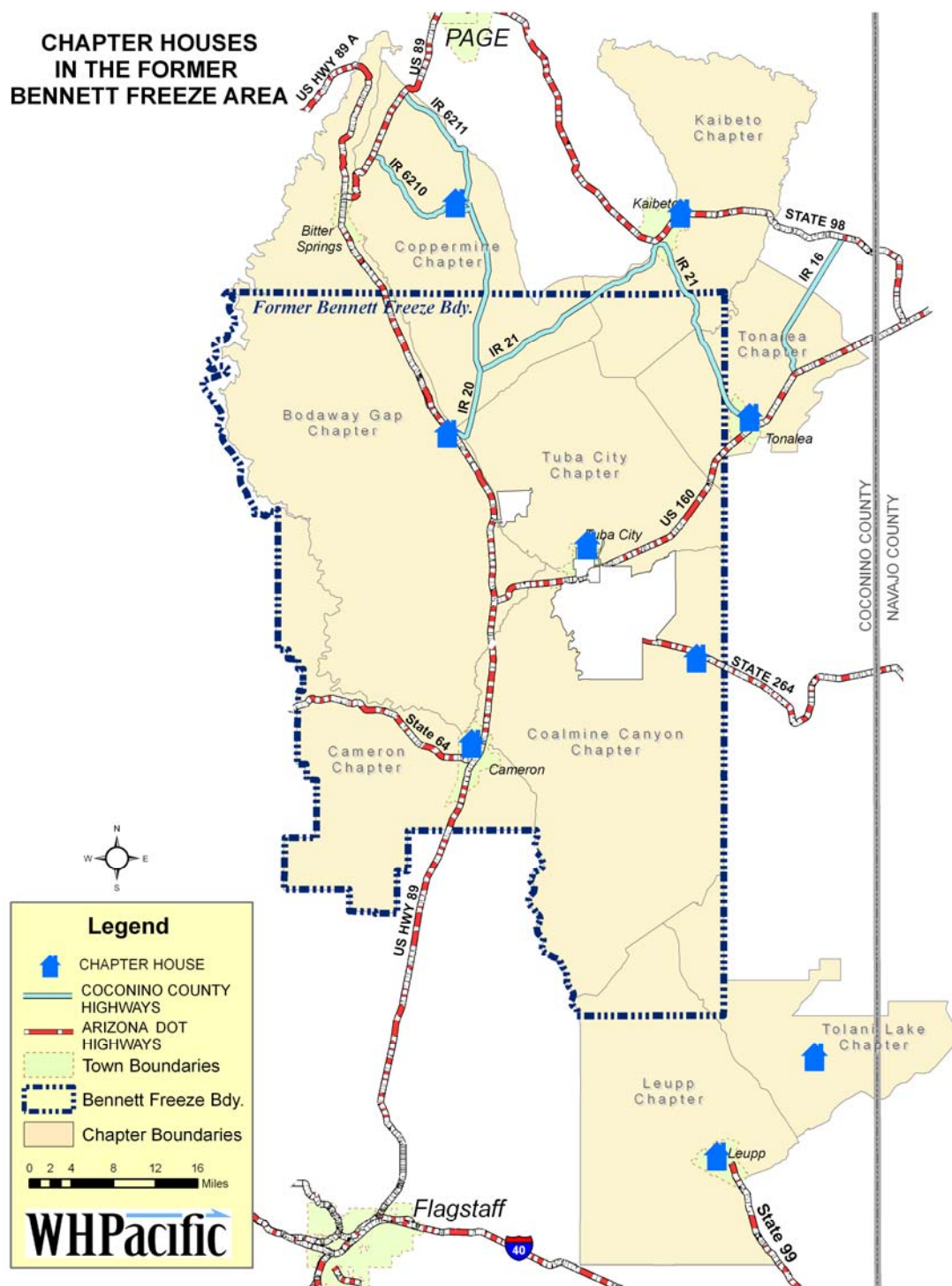


Figure 15: FBFA Chapter House Locations

2.3.2 Navajo Nation Division of Community Development (NND CD)

The Navajo Nation Division of Community Development (NNDCCD), particularly through its Capital Improvements Office (CIO) and Design and Engineering Services (DES), is responsible for the second stage in planning, funding, designing, and constructing community facilities, parks, and recreation facilities. The Local Governance Support Centers (LGSC), also within Community Development, serve as the links between chapters and the other departments in NNDCCD. LGSC offers training and technical support to chapters in order to complete the ICIP and implement projects.

The purpose of the Navajo Division of Community Development is to develop dynamic and cohesive plans for community development activities and provide relevant community education for orderly growth of the Navajo Nation that contributes to self-sufficiency of communities and families by construction quality homes, public facility buildings, and infrastructure that is in harmony with nature and people's needs.

NNDCCD works in close coordination with the Navajo Nation Council's standing Transportation and Community Development Committee (TCCDC).

The overall goals of NNDCCD include:

- To provide technical assistance and administrative support for chapter governments so that they can become self-sustaining and self-governing entities in coordination with local, county, state, and federal government offices.
- To improve the standard of living for Navajo families and individuals through the use of modern methods and techniques in the construction of new homes and rehabilitation of existing homes.
- To plan and provide infrastructure, transportation systems, and public facilities that support communities' future growth.
- To promote and foster sound land-use planning and growth-management policies and practices.
- To provide technical assistance in developing plans cooperatively with communities for proper solid waste management practices and disposal systems.

In service of these goals, the NNDCCD has five departments and five agencies, in addition to its administrative division.

2.3.2.1 Navajo Nation Capital Improvement Office (CIO)

The CIO conducts periodic capital needs assessments to determine whether existing facilities need replacement, repair, renovation, expansion, or retirement or whether new development is needed in the future.

The CIO is also responsible for training and capacity-building at the chapter level in the areas of proposal development, project management, and implementation.

Most importantly, the Capital Improvement Office (CIO) provides a formal mechanism for decision-making related to infrastructure development and capital improvement programming. It specifically links each chapter's short-term Infrastructure and Capital Improvement Plan (ICIP) with the long-term Comprehensive Land-Use Plan (CLUP). This formal process also includes a mechanism for establishing priorities, estimating the cost of capital projects, maintaining a multi-year list of capital projects, and monitoring the capital budget.

In its review and approval capacity, it provides each chapter with a recommendation about each project's first-order feasibility as well as assessing the capacity of the chapter to take on operations and maintenance once projects are complete.

Projects are evaluated based on merit, cost effectiveness, the applicant or sponsor's capacity to administer the project based on past performance, community participation and support, planning and coordination, and leveraging of financial resources.

The CIO compiles all Agency ICIP projects into a full six-year Navajo Nation CIP, which goes to the TCDC for approval. If projects are denied or deemed not feasible, they go back to the chapter for revision.

The President sets Executive Priorities for each fiscal year in March. The TCDC forwards its final recommendations to the Navajo Nation Council in April, which adopts capital budgets for the next Fiscal Year in May.

2.3.2.2 Local Governance Support Centers (LGSC)

Each of the five regional agencies of the Nation – Fort Defiance, Eastern, Chinle, Western, Shiprock – has a local governance support center (LGSC) to serve as a liaison office between Chapters, divisions, and the central government.

LGSC staff manage and support Chapter Service Coordinators at each of the chapters, including attending meetings, coordinating with Community Land Use Planning Committees, assisting in updating and certifying the Community Land Use Plan, and supporting the chapter in other steps toward certification. It emphasizes community and regional planning, land use and transportation, coordination with other chapters, and utility planning.

The Western Agency LGSC supports all nine chapters in the FBFA, in addition to nine others. It provides technical assistance for the following:

- CIP process and requirements
- Project pre-planning and needed clearances
- Project applications and supporting materials
- Land acquisition and clearance
- Project management, tracking, and record-keeping systems
- WIND applications and participation

2.3.2.3 Design and Engineering Services (DES)

Once projects receive funding through the Capital Funding Allocation Program, Design and Engineering Services provides technical assistance to design and construct public facilities that support a healthy society and physical environment. DES serves chapters, divisions, and other entities of the Navajo Nation, including architectural, engineering, and construction management services. It reviews, coordinates, and approves the design and specifications for all capital improvement projects to ensure compliance with state, federal, and Navajo Nation regulations, codes, and standards.

Its goal is to design facilities that satisfy cultural and environmental conditions of the built environment, working with Navajo Nation communities to promote integrity and self-sufficiency.

The Engineering Section of DES, which operates out of Window Rock, works closely with the LGSC senior planners. In the FBFA, this is the Western Agency LGSC planner.

2.3.2.4 Navajo Nation Community Housing and Infrastructure Department

In 2008, the Community Development Block Grant Department and Navajo Housing Services Department were consolidated into a single department responsible for providing housing and community planning services throughout the Navajo Nation.

The Community Housing and Infrastructure Department is responsible for promoting and developing improved living conditions for Navajo families and strengthening communities through programs for

community housing, utility service, public facility, and economic development improvements.

Its objectives include the following:

- Providing high quality and efficient housing and infrastructure improvements;
- Seeking and implementing additional opportunities for and awareness of home ownership and renovation through community development partnerships and non-profits;
- Promoting and supporting private sector involvement in the financing and implementing of housing and infrastructure projects;
- Encouraging continued decentralization of housing development and renovation projects to chapters and communities;
- Seeking and securing financing from the Navajo Nation, federal, state, and other agencies for planning, design and construction of new homes, renovations, and infrastructure development;
- Improving collaboration with other government departments, outside utility agencies, other government offices, private companies, non-profits, and chapters ;
- Promoting the use of improved building standards, appropriate technology, resource conservation, energy-efficiency and sustainability in the design and construction of housing and infrastructure improvement programs; and
- Monitoring the results of the Navajo Housing Authority, Native American Housing Assistance and Self Determination Act (NAHASDA) and other housing improvement programs on behalf of the Navajo people to ensure compliance with approved Indian Housing Plan goals, regulations, and standards.

In order to accomplish the above, the department includes a Compliance & Monitoring, Planning, NAHASDA, Home Improvement Program, Weatherization Assistance Program, and Community Development Block Grant (CDBG) Bathroom / Housewiring Infrastructure.

This department will need to take a leadership role in serving the two highest priorities in the FBFA recovery.

2.3.2.5 Navajo Department of Transportation (NDOT)

The Navajo Department of Transportation (NDOT) plans and develops an integrated network of highways, roads, waterways, airports, railroads,

and pipelines for the delivery of people, commerce, and goods within the Navajo Nation that is safe and in harmony with nature.

NDOT is responsible for transportation planning, project planning, construction, maintenance, and safety of all modes of transportation within the Navajo Nation and for implementing the Navajo Nation Transportation Code, which includes vehicle licensing and registration, operator's licensing, and user fee collection programs.

NDOT works closely with the BIA to contract and operate the functions of the BIA Branch of Roads.

NDOT maintains an Information Management System and Geographic Information System (GIS) for all transportation activities, which is disseminated to appropriate agencies.

NDOT also coordinates a systematic Transportation Improvement Program (TIP) for the Navajo Nation in coordination with federal, state, and local governments.

NDOT manages a Short and Long Term Construction Priority Program for the TCDC and Agency Roads Committee, and it also assists in developing legislation, policies, rules, and regulations relating to the Navajo Nation Transportation system based on feasibility studies and analyses.

2.3.2.6 Solid Waste Management Program

The Solid Waste Management Program assists communities to develop proper solid waste management practices, provides guidance to develop a viable, self-sustaining solid waste disposal system for the Navajo Nation, and consolidates and closes existing open dump sites.

Part of its mission includes public and community education about waste management and recycling and coordinating with local chapters to develop operation and maintenance plans and funding alternatives. It also provides training and guidance to develop regional planning for waste management, where implementation becomes a local responsibility. Solid Waste researches, analyzes, and develops needs assessments based on community facilities and projects.

Solid Waste coordinates closely with other Navajo governmental entities and county, state, and federal governments to consolidate resources and resolve waste issues.

SOLID WASTE TRANSFER STATIONS

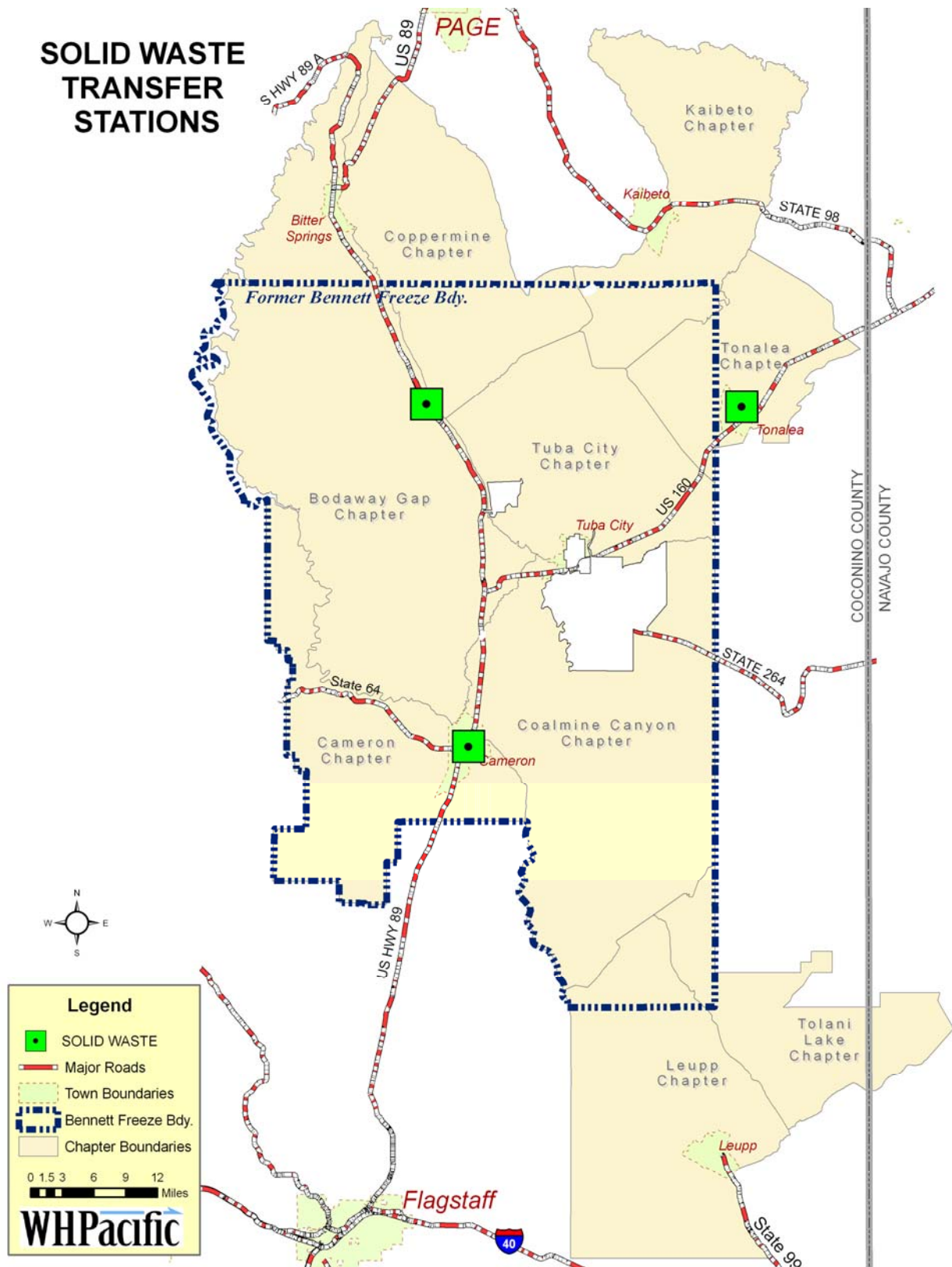


Figure 16: Solid Waste Facilities in the FBFA

3.0 Public Agencies Serving the Bennett Freeze Area

3.1 Housing Service Providers

3.1.1 Navajo Housing Authority (NHA)

The NHA is a tribally designated housing entity authorized by the Navajo Nation to administer the Indian Housing Block Grant under NAHASDA to plan and construct affordable housing for low-income families.

In 1966, NAHASDA reorganized the system of housing assistance provided to Native Americans through the Department of Housing and Urban Development by eliminating several separate programs of assistance and replacing them with a block grant program. The two programs authorized for Indian tribes under NAHASDA are the Indian Housing Block Grant (IHBG), which is a formula-based grant program and Title VI Loan Guarantee that provides financing guarantees to Indian tribes for private market loans to develop affordable housing.

NHA strives to promote and provide affordable, quality homes, professional and respectful management services, and economic growth in an ethical manner. Its guiding principles seek to promote opportunities for residents' self-sufficiency through job training, community organizing, and contracting work to Navajo-owned businesses and workers. It also seeks to provide one-stop housing service centers, where many of the approval and planning functions, including financial management, can be handled. NHA is dedicated to providing education and training to families on home maintenance and house improvement. The goal is to improve the appearance and increase the value of homes, including drug prevention and crime prevention programs.

The NHA has been a leader on the former Bennett Freeze Task Force and will need to continue its central role in order to implement the Recovery Plan, which includes a substantial amount of new housing construction.

3.1.2 Navajo Community Housing and Infrastructure Department

The Community Housing and Infrastructure Department, described in Section 2.3.3.3, has a more comprehensive responsibility to strengthen communities through housing, improved utility service, public facilities, and economic development.

In addition to providing housing and infrastructure improvements itself, it also monitors the results of the NHA NAHASDA projects and other housing improvement programs to ensure compliance with Indian Housing Plan goals, regulations, and standards.

It also provides education and awareness about home ownership and maintenance for residents and cultivates partnerships and private sector investment in financing and implementing housing and infrastructure projects, in addition to seeking funds from the Navajo Nation, federal, state, and other agencies.

The department's emphasis on improving collaboration with other government entities, outside utility agencies, private companies, non-profits, and chapters will position it well as a leader in the decision-making and leadership necessary to implement recovery plan projects.

Its emphasis on improved building quality and standards, resource conservation, energy-efficiency, and sustainability in design and construction also works well with many of the stated aims of residents and community participants asking for high-quality, lasting, energy-efficient facilities and homes.

3.2 Water and Wastewater Utility Service Providers

3.2.1 Indian Health Service (IHS)

IHS is authorized under Public Law 86-121 to provide essential water supply and storage facilities for communities and homes on the Navajo Reservation. IHS typically does not provide services for commercial or industrial water users.

IHS develops and maintains an inventory of sanitation deficiencies, provides environmental engineering assistance with utility master planning and sanitary surveys, develops multi-agency funded sanitation projects, assists with grant applications, and leverages IHS funds for water supply and waste disposal facilities. It also provides professional engineering design and construction services for water and waste disposal facilities, including technical consultation and training for tribally owned water supply and waste systems.

IHS has made capital investments of over \$230 million in water and wastewater infrastructure on the Navajo Reservation. The operation and maintenance of these systems has been delegated to the NTUA. Water rates are competitive, and water revenues are generally sufficient to meet operating expenses.

It only provides wastewater facilities for homes, and it does not serve homes located more than three miles from a water line that it serves. The farther a house is from an existing line, the more expensive it is to serve. IHS uses a cost-benefit analysis to prioritize the projects it funds and constructs. The lowest cost projects are completed first in order to serve as many individual homes as possible with IHS funds.

IHS funding is provided for two main purposes; (1) new housing construction and (2) existing homes, high health impact projects, and low-income residents. EPA provides some funds to improve drinking water services and delivery.

Individual residences are only eligible once. In order to provide wastewater service, the home must have plumbing for running water. IHS can provide cistern wastewater disposal systems with solar-operated pumps, but it does not perform maintenance or repair systems due to vandalism. IHS also builds bathroom additions, including a plumbing wall, sink, and bathtub for houses to be served by waterlines.

Despite the freeze, IHS has continued to work toward providing water to residents in the FBFA. A list provided to the project planning team includes active and inactive projects in the FBFA. It is included in **Appendix 7.8**.

These include water extensions, scattered house water solutions, water sources, wastewater lagoons, cisterns, solid waste facilities, and landfill closures in either Bodaway-Gap, Cameron, Coalmine Canyon, Kaibeto, Tonalea, and Tuba City.

3.2.2 Navajo Tribal Utility Authority (NTUA)

Created in 1959, the mission of NTUA is to provide its customers with electricity, natural gas, water, wastewater treatment, and related services at competitive prices, while contributing to the economy of the Navajo Nation, consistent with the improvement of the health and welfare of the residents of the Navajo Nation and the employment of Navajo people.

NTUA is managed by a management board with the oversight of the Navajo Nation Economic Development Committee. Utility prices are determined by an operating tariff and are set by the board. Rates are applied reservation-wide without regard to the specific system operation or maintenance costs.

NTUA typically assumes ownership and the operations and maintenance responsibilities for IHS water facilities after they have been constructed. NTUA also accepts operation of sewer lagoons constructed by IHS that serve housing developments of 25 or more homes.

3.2.3 Bureau of Indian Affairs (BIA)

The Bureau of Indian Affairs (BIA) provides water and wastewater services for facilities on BIA lands, such as schools or BIA administrative offices.

WATER UTILITIES

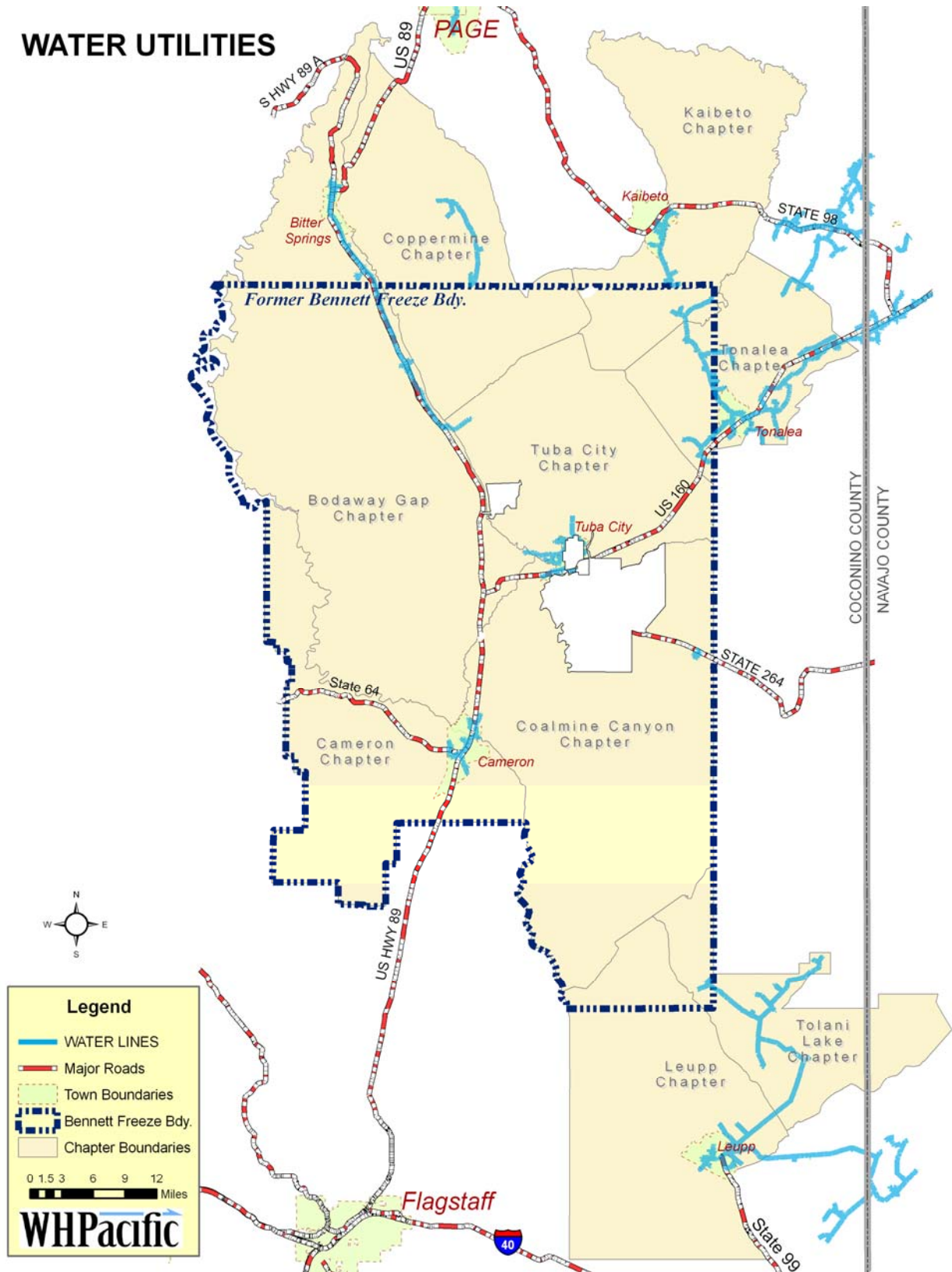


Figure 17: Water Systems in the FBFA

WASTEWATER LAGOONS

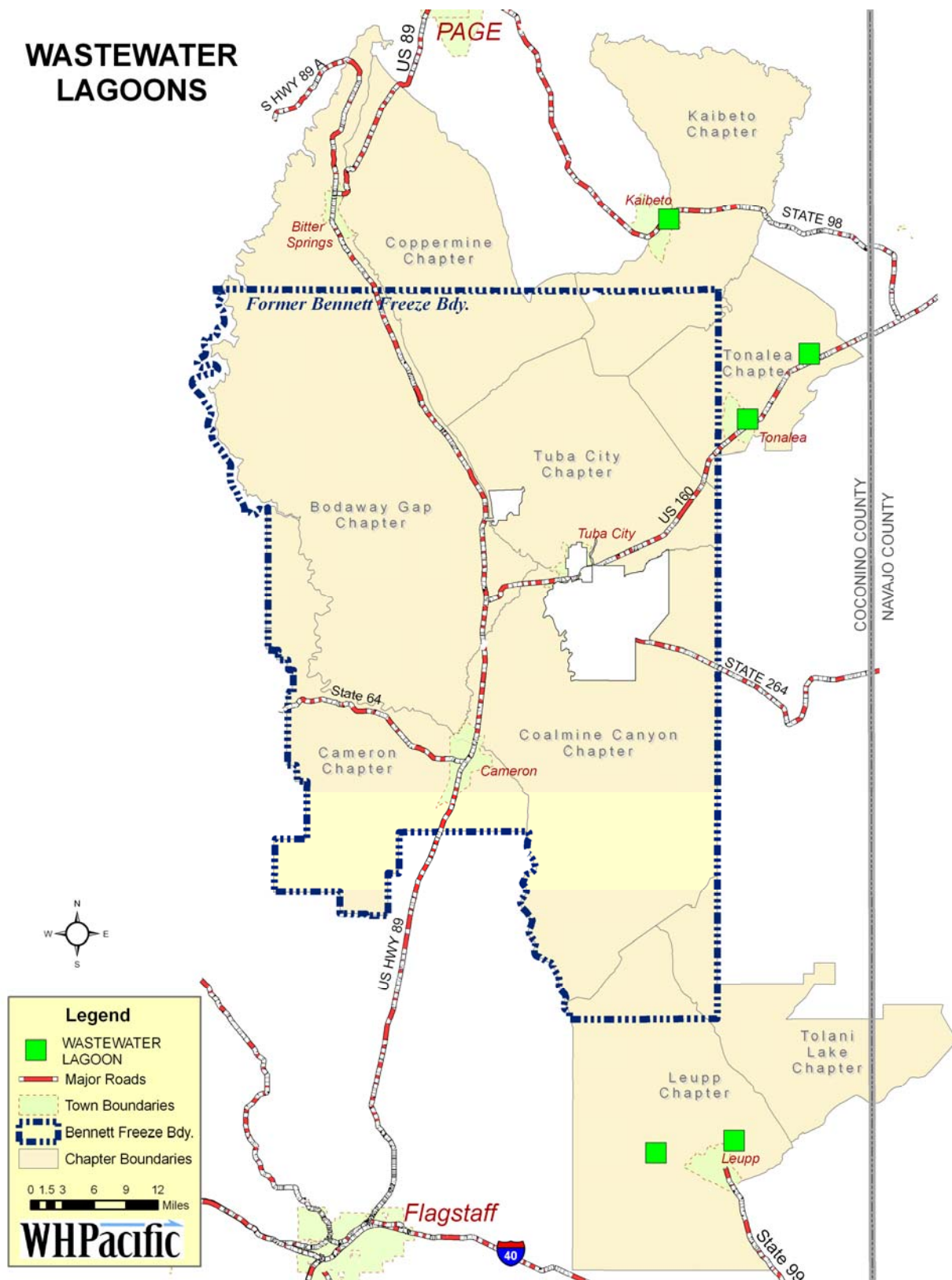


Figure 18: Wastewater Lagoons in the FBFA

WASTEWATER UTILITIES

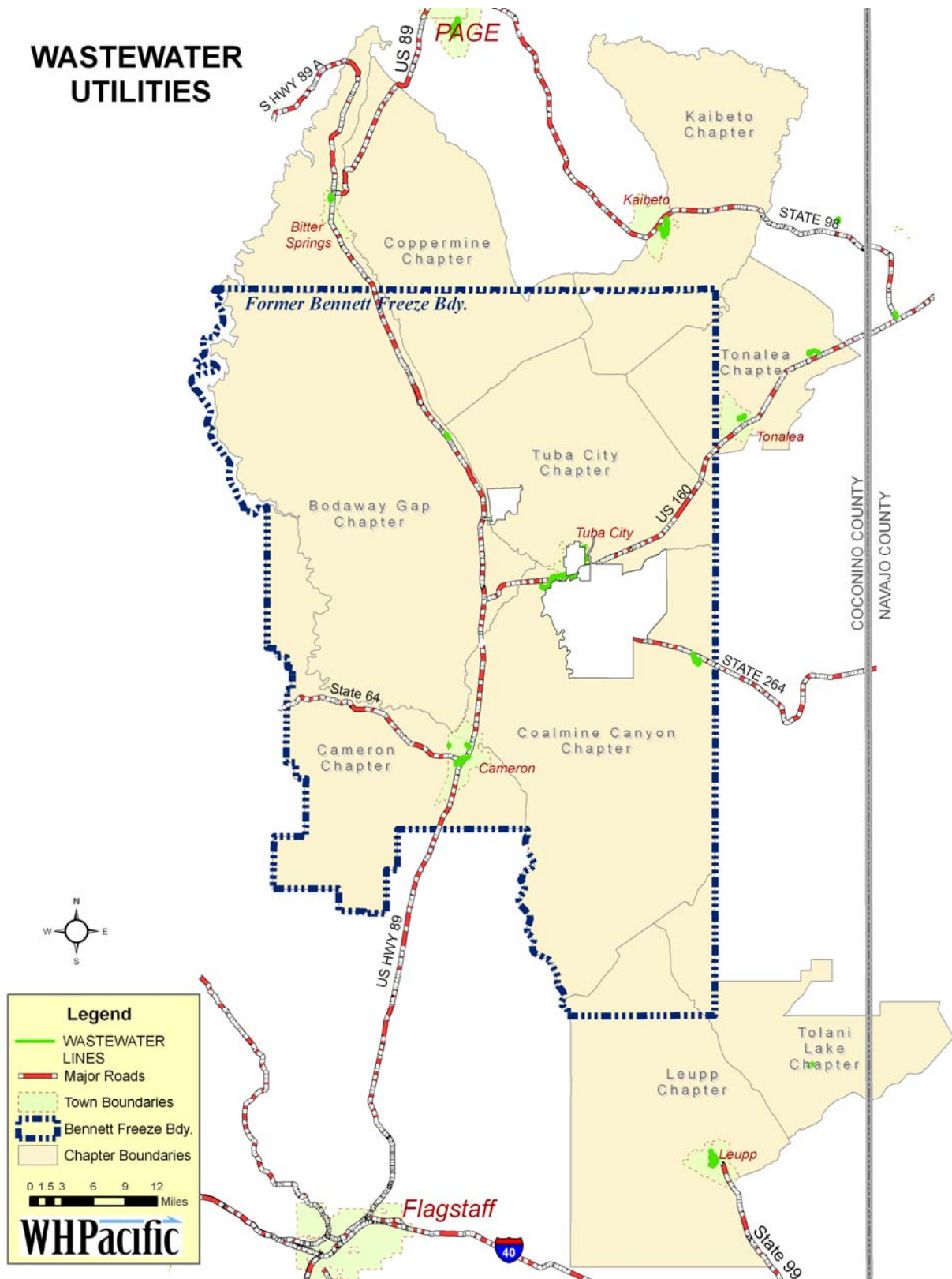


Figure 19: Wastewater Utility Service in the FBFA

3.3 Power and Natural Gas

3.3.1 NTUA

NTUA's electric power is purchased from Tucson Electric Power, PacifiCorp, Public Service Company of New Mexico, APS, and Western Area Power Administration. NTUA does not generate any electricity. NTUA depends on transmission agreements to deliver power to 14 delivery points surrounding the Navajo Reservation. From there the high voltage is downsized to useable voltage by a series of transformers and then transmitted across the Navajo Nation and distributed to Navajo homes and businesses through a vast network of distribution power lines operated and maintained by the NTUA. Most of the power lines were built in the 1960s and are becoming heavily loaded, which limits the capacity to serve new customers.

Approximately 60 megawatts of energy and capacity are secured in long-term power purchase contracts and about 40 MW is being purchased in the open market as needed. NTUA's peak demand reached 114,400 kilowatts in 1000. NTUA is contemplating entering the power generation arena. Generating its own power or securing a block of generation power will assure NTUA of an adequate supply of low cost electricity. Growth over the next decade is estimated to be approximately 3% per year.

The rates for electrical services are lower than rates provided by other utilities in the communities surrounding the Navajo Nation.

NTUA's purchase of natural gas is from El Paso Marketing, which delivers cost-efficient gas to delivery points in New Mexico and Arizona.

NTUA has a GIS mapping project that identifies and monitors all of NTUA's systems, electric, natural gas, water and wastewater main lines, distribution laterals, meters, poles, and related appurtenances.

The challenge to NTUA is to provide service to customers who live miles apart, over 25,000 square miles, forcing the cost of extending and maintaining utility lines to increase significantly.

NTUA has a goal of serving the entire Navajo Nation. NTUA has begun discussions with APS concerning the potential for buying out APS service to the Chapter. NTUA is a non-profit corporation with lower electric service rates than those of the for-profit APS. Although the Chapter is not in the NTUA service area, homes may participate in NTUA's Navajo Electrification Demonstration Project. Homes must be wired in order to be eligible. Nationwide, NTUA received \$3 million to purchase solar & wind/solar systems for distribution to eligible clients. A 640-watt system cost \$95.00 per month for 15 years and is on a rent to own basis. The wind and solar system is \$75.00 per month and is for rent only.

3.3.2 Private Companies – Propane Gas

Propane is purchased from private companies, which often provide delivery, sales, service, parts, and appliances.

The Division of Social Services (DSS) has financial and billpaying assistance that can help residents pay for the high cost of propane in winter months.

3.3.3 Arizona Public Service (APS) Company

APS, Arizona's largest and longest-serving electricity utility, serves more than one million customers in 11 of the state's 15 counties. APS serves residents in the western portion of the Navajo Nation Reservation, including some former Bennett Freeze communities.

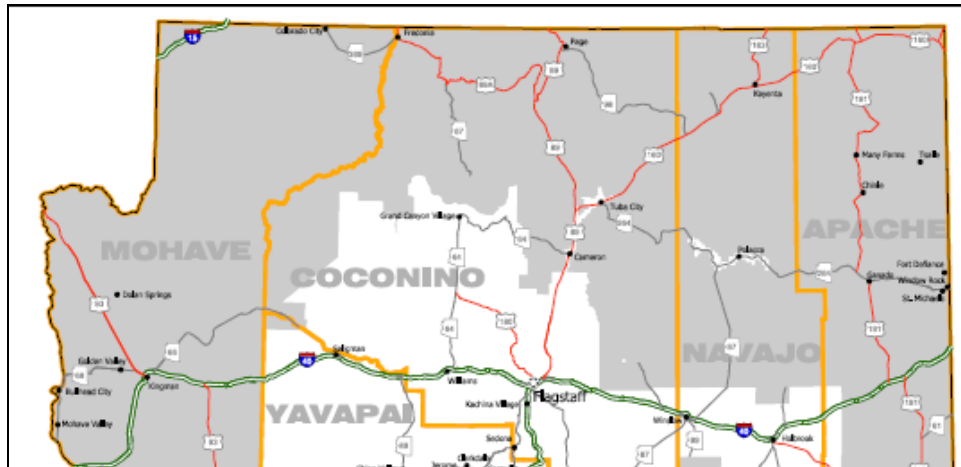


Figure 20: APS Service Boundaries

Source: http://www.aps.com/images/pdf/AZ_Map.pdf

The company owns and operates seven natural-gas and two coal-powered plants, and has an increasing array of renewable energy power generation. APS operates the Navajo Power Plant near Page, AZ, which features three 750-megawatt coal-fueled, steam-electric generating units. An electric railroad delivers coal to the plant from a mine on the Navajo and Hopi Indian Reservations at Black Mesa in northern Arizona.

APS is regulated by the Arizona Corporation Commission. The Commission regulates APS' retail electric rates and its issuance of securities.

The Rural Electrification Program of the U.S. Department of Energy provides funds for residences in pockets of poverty to use for connections to power lines or for solar power. If funds are allocated to a Chapter, APS conducts an assessment to determine what option is best – a connection to the power grid or solar power. If solar power is determined to be ideal, a system is given to the household, and residents are only responsible for maintenance fees.

ELECTRIC UTILITIES

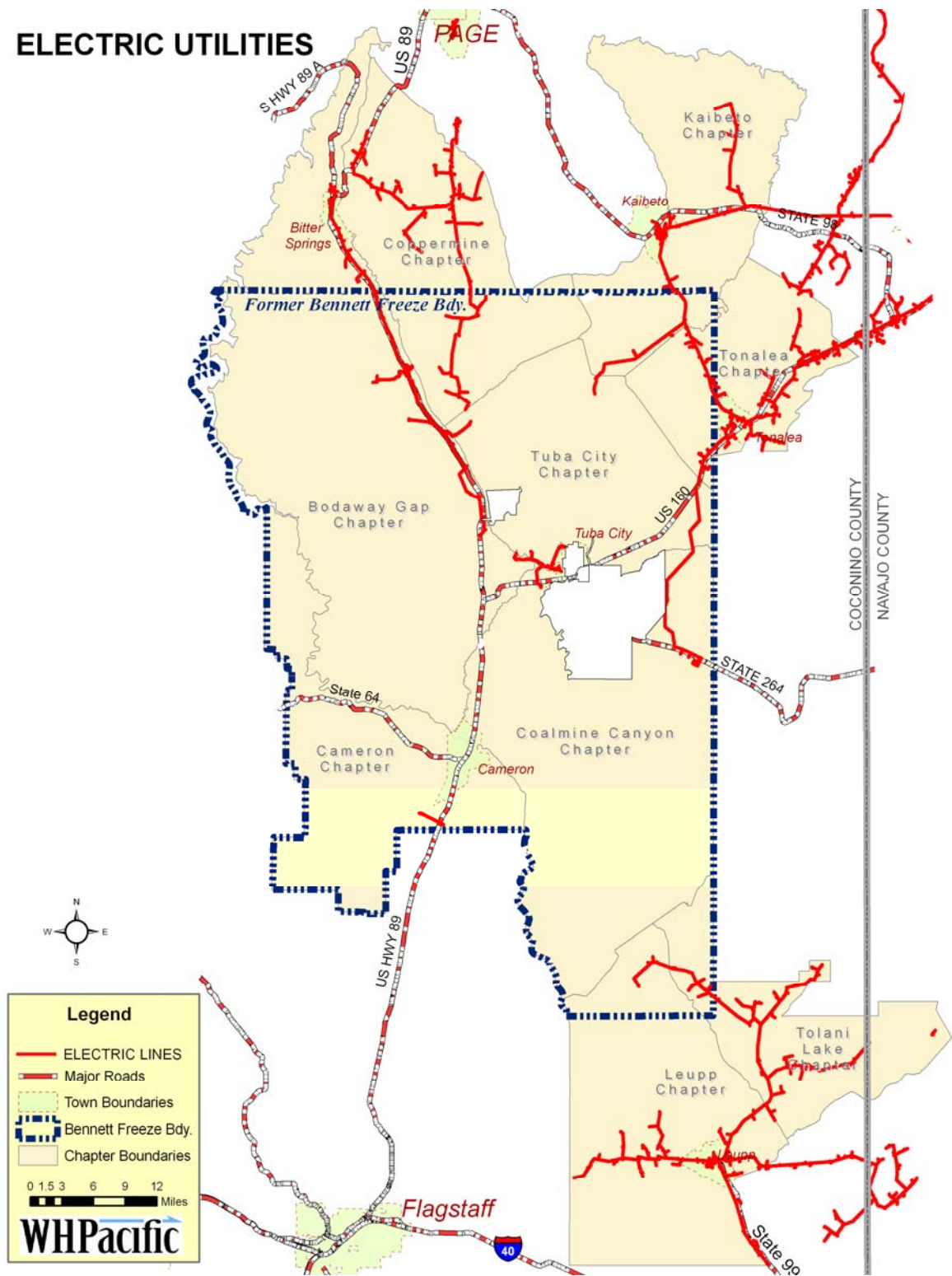


Figure 21: Power in the FBFA

GAS UTILITIES

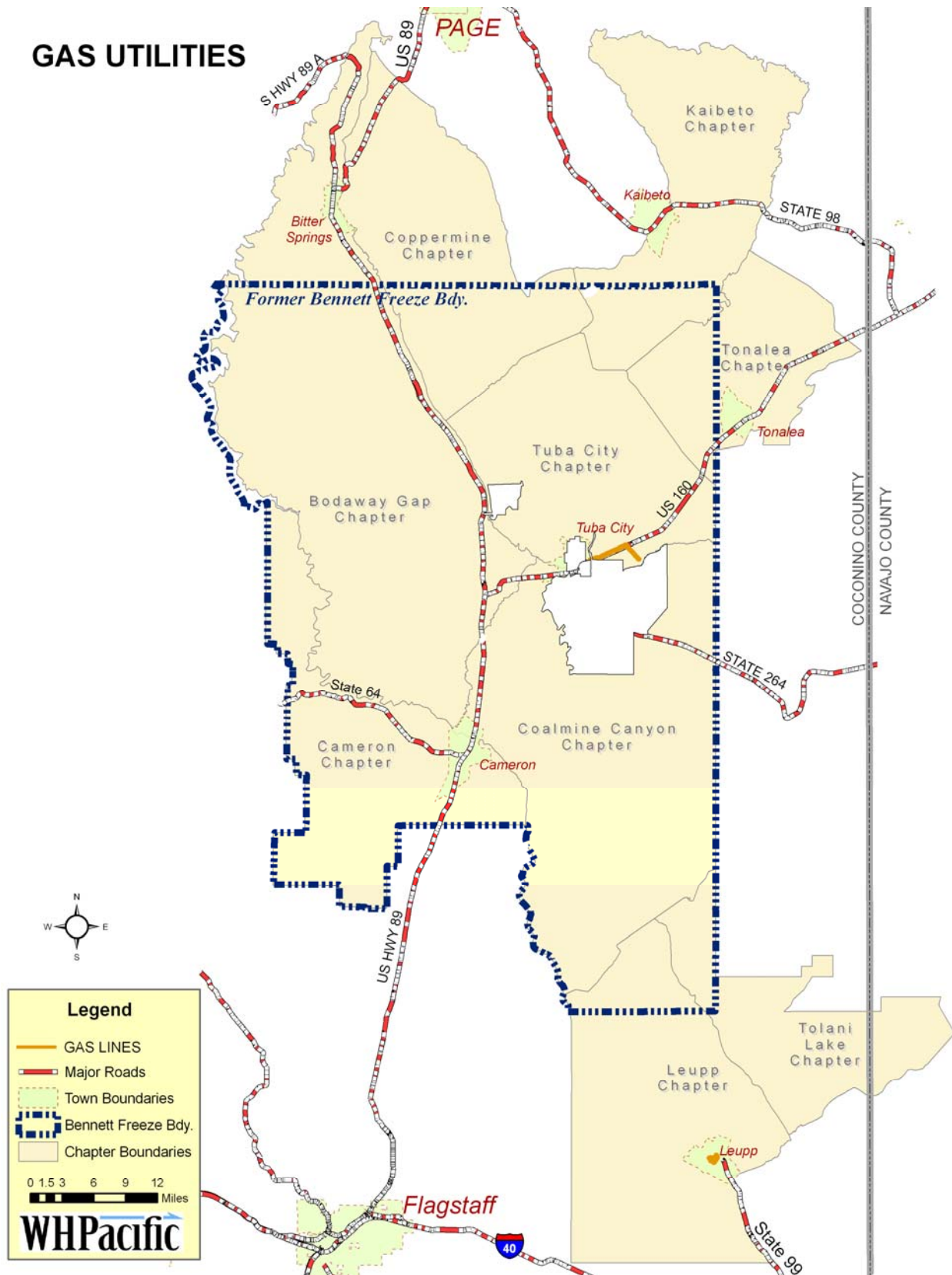


Figure 22: Gas Lines in the FBFA

3.4 Telecommunications

3.4.1 Navajo Nation Telecommunications Regulatory Commission

The Navajo Nation Telecommunications Regulatory Commission is primarily responsible for regulating telecommunication activities on the Navajo Nation, including telephone, cellular phone, satellite, internet, two-way radio, and others. As part of its mission, the Commission also plans for the expansion of service coverage and delivery across the Navajo Nation, by both public and private companies.

3.4.2 Frontier Communications

Frontier Communications (formerly Navajo Communications Company) serves the telecommunication needs of the Navajo Nation. It provides business and residential services for satellite and cable television, land-line telephone, and internet. It also leases tower spaces to private cellular companies.

3.4.3 Cellular Phone Companies

Cellular One and Verizon offer the most comprehensive cellular service in the area, although users report reception to be unreliable and spotty. Residents have requested AllTell service during this planning effort.

3.5 Transportation

3.5.1 Navajo Department of Transportation (NDOT)

The Navajo Nation is very active in transportation planning and road improvements on the reservation. The Navajo Department of Transportation (NDOT), under the Division of Community and Development, oversees road and aviation development projects under the supervision of the TCDC. NDOT plans and implements the Navajo Nation Long Range Comprehensive Transportation Plan through its Transportation Planning Program.

NDOT works closely with the standing Transportation and Community Development Committee (TCDC) of the Navajo Nation Council, which has oversight responsibility for all road and transportation matters. The TCDC oversees the coordination of all transportation activities on the reservation and has the final approval of the Transportation Improvement Plan (TIP) and the Long Range Comprehensive Transportation Plan.

The latest version of the long-range plan, completed in 2004, recommends several projects for the FBFA, from small-scale improvements like traffic caution signals and sidewalks to large-scale improvements such as to N20 and N6732 (**Appendix 7.4.6.7**).

Five Agency Road Committees, whose members are elected at the Chapter level, oversee local road development needs and recommend road construction priorities to the TCDC. The Western Agency Road Committee is responsible for identifying and recommending FBFA road projects for funding through the TIP.

As of 2008, the Western Agency Road Committee has submitted the following road projects to the TIP that may impact the FBFA. Those in yellow are confirmed as FBFA projects. Others are included because they match the description of road proposals requested by participants at the community workshops in the summer of 2008.

Route No.	PROJECT NO.	PROJECT NAME/LOCATION	Comment	Length Miles	Const Type	IRR F31 Funding	Project in Inventory	Safety Need	First Yr Sch for Const
	FY2009								
N6720	N6720(1)1,2,3 §	Dinnebito Wash Bridge N309 replacment	ABCH	0.01	GBG	N/A	Yes	Low	2014
N6910	N6910(1)1,2 §	Canyon Diablo Brdg Rehab - N319	ABCD	0.01	GDB	N/A	Yes	Low	2015
N20	N20(3)2,4 ***	Gap to Coppermine	ABCDU	9.30	GDG	full	Yes	Low	2013
N21	N21(3)2&4 *	Red Lake to Kiabeto	AD	4.99	GDS	full	Yes	Low	2004
	FY2010								
N609	N609(2)2,4 ¶ §	Kerly Street Tuba City	ABCDU	1.20	GDS	full	Update	Moderate	2002
N6331/N6330	N6331(1)1,2&4/N6330(1)1,2,4 *	Trading Post Brdg Rehab - N310	ABCD	2.29	GDGB	N/A	Yes	Low	2004
N6731	N6731(1)1,2,3	Gun Club Road Bridge N307	ABCD	2.00	GBG	Partial	Yes	Low	2004
N6732	N6732(1)1,2 *	Lower Dennebito Brdg Rehab - N320	ABCD	0.01	GDGB	N/A	Yes	Low	2004
	FY2011								
N619	N619(1)2,4 ¶ §	Colorado Street Tuba City	ABCDU	2.00	GDS	full	Update	Moderate	2002
	FY2012								
N20	N20(3)2,4	Gap to Coppermine	ABCDU	9.30	GDG	full	Yes	Low	2013
	FY2015								
N20	N20(4)2,4	Gap to Coppermine	ABCDU	9.30	GDG	full	Yes	Low	2013
	FY2017								
N20	N20(5)2,4	Gap to Coppermine	ABCDU	9.30	GDG	full	Yes	Low	2013
	FY2022								
N15	N15(1-1)(2-1)4	Reservation line to Leupp Chip Seal	DW	14.00	CS	full	Yes	Low	2002
	FY2027								
N101	N101(8)2&4	Tuba City Main Street Re-hab-Facility St	ABCD	1.00	GDS	full	No	High	2010
N101	N101(9)2&4	Main Street north to N608	ABCD	1.00	GDS	full	No	Moderate	2010
N16	N16(7)2&3	US160 to SR98	ABCDU	8.00	GDG	full	Yes	Low	2008
	FY2029								
N20	N20(1-1)2&4	Copper Mine/LeChee to Page Rehab	BCD	13.60	RC	full	Yes	High	2014
	FY2031								
N101	N101(7-2)4	Tuba City Main Ext to N608, Birch & Fir	BDW	1.50	R	full	Yes	Low	2014
N6732	N6732(1)1,2	Lower Dennebito Bridge Replace N320	ABCD	0.01	GDB	full	Yes	High	2017
N16	N16(8)2&3	US160 to SR98	ABCDU	7.00	GDG	full	Yes	Low	2009
	FY2033								
N609/N614	N609(1-1)/N614(1-1)2&4	Kerley Street & Navajo Blvd - Tuba City Rehab	CDW	1.43	R	full	Yes	Low	2024
N101	Tuba City Streets	Tuba City Streets Chip Seal	CDW	5.20	CS	full	Yes	Low	2024

The full spreadsheet of information and two maps of the projects shown above in yellow are included in the **Appendix 7.8**.

The code for the comment column above is as follows:

- A** – Right of Way (ROW) needed
- B** – Environmental Assessment Needed
- C** – Archeological Clearance Needed
- D** – Surveying Data Needed
- E** – Construction Easement Needed
- H** – (unknown as of publication date)
- U** – Utility Relocation Needed
- W** – Within Existing ROW

3.5.2 Bureau of Indian Affairs (BIA)

The BIA provides numerous services to residents of the Navajo Nation, some of which include transportation planning, road and bridge design, and construction.

The Navajo Indian Reservation Roads (IRR) Program is administered by the BIA Navajo Area Branch of Roads as part of the federal government's trust responsibility with the Navajo Nation. Indian Reservation Roads are public roads that provide access to and within Indian reservations, Indian trust land, restricted Indian land, and Alaska native villages. (An inventory of IRR's is available online at: www.doi.gov/bia/roadreservation)

The Navajo IRR Program's primary source of funding is the national Highway Trust Fund, an interest bearing account funded by gas taxes, state assessments,

cross-country trucking levies, and other sources. IRR funds are allocated for construction and improvements to IRRs on the Navajo Reservation.

Road maintenance is funded separately from IRR construction funds. The source of maintenance funding is the Department of the Interior Appropriations – Tribal Priority Allocations (TPA); however, road maintenance has a low priority under the TPA allocations. The Navajo IRR maintenance funds have never been adequate and are sufficient for only about one-third of actual maintenance needs.

3.5.3 Arizona Department of Transportation (ADOT)

The ADOT manages and maintains a number of state highways that cross the Navajo Reservation.

The former Bennett Freeze communities are located in ADOT's Flagstaff District. Roads maintained by ADOT within the FBFA include State Highway 64, U.S. Highway 89 and 89A, State Highway 98, U.S. Highway 160, and State Road 264.

3.5.4 Coconino County Road Maintenance

The Public Works Department of Coconino County is responsible for road improvements and maintenance of the county system roadways, primitive roadways, and numerous other classes of roads maintained through cooperative intergovernmental agreements, including road maintenance for some roadways in the Navajo Nation.

In the FBFA, these include Indian Road (IR) 20 between Gap and Coppermine, IR 21 between Gap and Kaibeto and southeast to Tonalea, IR 6210 and 6211 north from Coppermine to Highway 89, IR 16 east of Tonalea north to Highway 98.

Funding for road maintenance is primarily derived from the Highway User Revenue Fund (HURF), which is generated by gasoline taxes and vehicle license fees.

**ARIZONA
DEPARTMENT OF
TRANSPORTATION AND
COCONINO COUNTY
MAINTAINED HIGHWAYS**

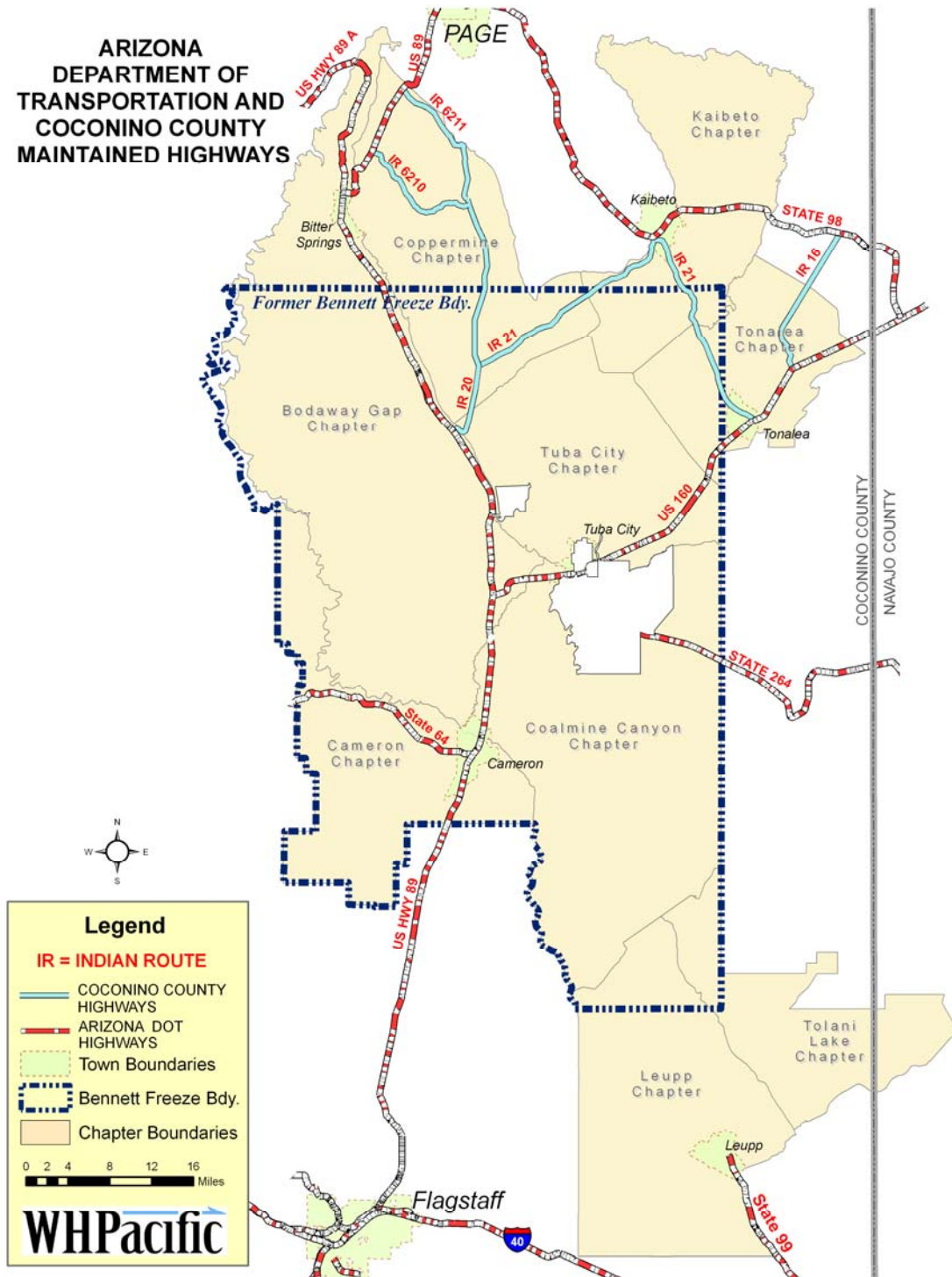


Figure 23: ADOT & Coconino County Maintained Roads in the FBFA

3.5.5 Public Transportation

The Navajo Transit System provides public transportation services (buses) between Window Rock and Leupp. The Navajo Nation Head Start Program provides bus service to transport pre-school students and teachers for home-study programs.

Other public transportation services are the Navajo Aging Services Department and Safe-Ride Services, a private operation for non-emergency medical transport. The Navajo Nation's Community Health Representative Program provides emergency medical transportation.

3.5.6 Air Transportation

The Navajo Nation currently has nine primary airports serving smaller, commercial-size planes and is currently planning to develop six additional sites as secondary airports. The Tuba City airport located near the intersection of Highways 89 and 160 is one of the nine primary airports serving Tuba City and surrounding communities. In 2005 the Navajo Nation developed a five-year capital improvement master plan for the Navajo Nation airports. This plan has been submitted to the Arizona Department of Transportation and the FAA, Western Pacific Region headquarters, for review and approval.

Currently, planes land at Transwestern's Winslow Compressor airstrip. It is located 9 miles east of the town of Leupp and has a paved runway. The Navajo Department of Transportation (NDOT) is responsible for maintaining and developing the airport. There is another airstrip located near Navajo Road 15, but it is no longer operational. The redevelopment of this airstrip would be beneficial to the community.

3.5.7 Railroad

Burlington Northern Santa Fe Railroad runs across the southwest section of the Leupp Chapter and crosses Canyon Diablo. The railroad that runs through Tonalea Chapter is managed by Black Mesa and Lake Powell Railroad Company.

RAILROADS

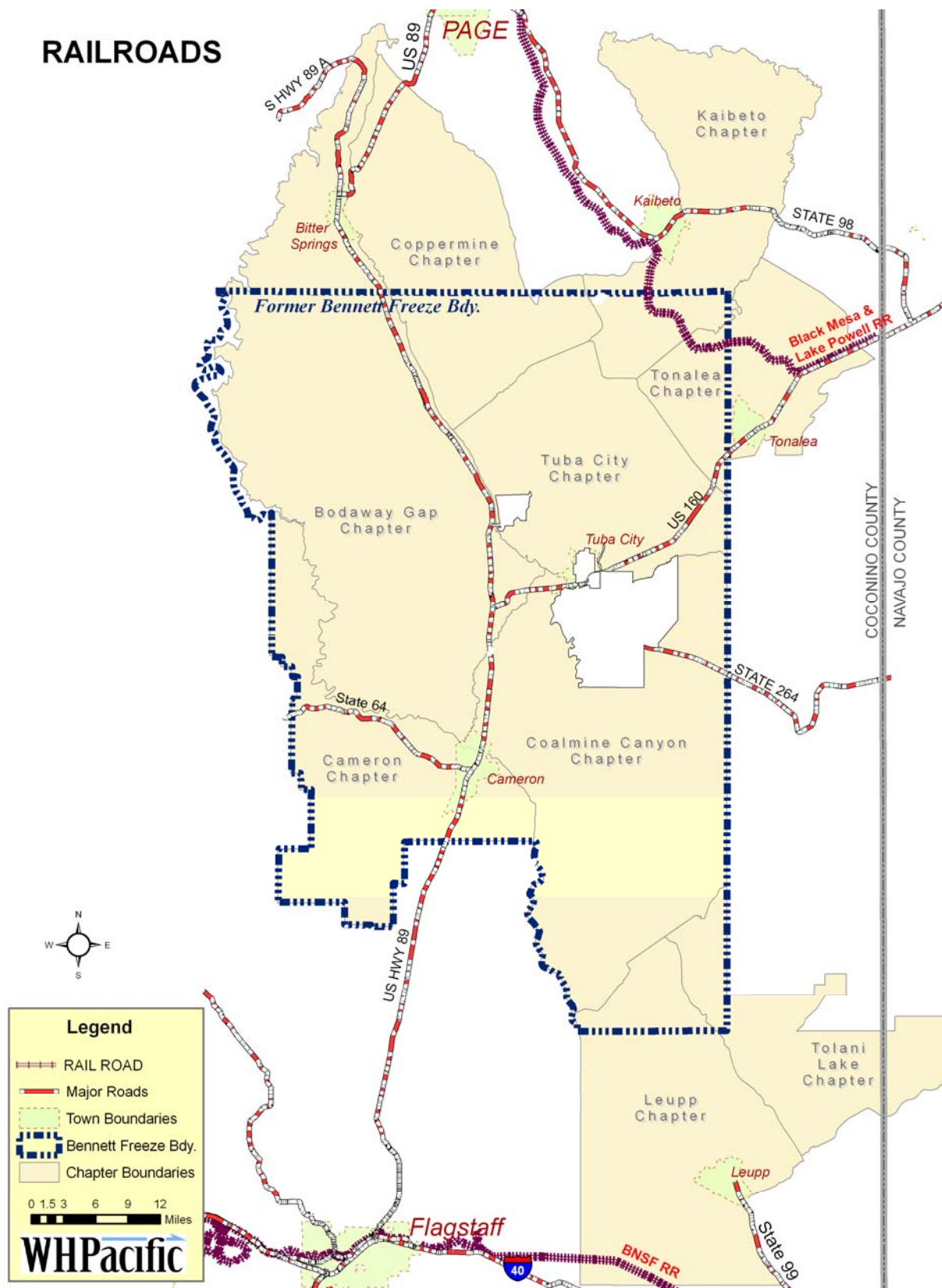


Figure 24: Major Roads and Railroad in the FBFA

3.6 Health and Public Safety

3.6.1 Navajo Area Indian Health Services (NAIHS)

The Navajo Area Indian Health Service (NAIHS) is part of a federal program responsible for providing health services to Native Americans living on or near Indian reservations, including the Navajo Nation. NAIHS administers a comprehensive healthcare system, including primary care, preventative healthcare, and community and environmental health.

Its network of services are provided through hospitals (inpatient and outpatient), health centers (day and office visits with ambulance service), and health clinics (open one to three days a week, subject to resources).

As of 1967, Window Rock became one of twelve administrative areas across the U.S. The Tuba City Health Center was one of three pilot projects after the Indian Self Determination Act of 2002 (P.L. 93-638).

The FBFA is served by the Tuba City Service Unit for Tuba City, Bodaway-Gap, and Cameron, and the Winslow Service Unit for Leupp.

According to its 2004 Master Plan, the Tuba City Service Unit experienced the greatest percentage of growth, as well as a high user population growth. To add capacity to health services in the area, the plan calls for adding a health clinic in both Bodaway-Gap and Cameron service areas. Leupp is also slated for an upgrade to its current health clinic to a health center.

Ambulance service, improved medical emergency response times, and access to medical attention – whether trauma, healthcare, preventative health, or dental services – was requested by multiple residents of several FBFA chapters. Projects and planning associated with providing these health services needs to be coordinated with NAIHS.

3.6.2 Navajo Nation Division of Health

The Navajo Nation Division of Health (NDOH) is responsible for planning, developing, promoting, preserving, and regulating the overall health, wellness, and fitness program for Navajo people. NDOH provides health care services for alcohol and substance abuse; elder care; diabetes; women, infants, and children; health education.

3.6.3 Navajo Nation Division of Public Safety

3.6.3.1 Police

The Navajo Nation Police are responsible for providing law enforcement in all Navajo communities, including violations of laws by non-Indians, non-members, and members of the Navajo Nation.

At present, the Navajo Nation Department of Law Enforcement is headed by a Chief of Police, six Police Captains, one Police Lieutenant, who provide oversight for the Division of Public Safety departments of Internal Affairs & Criminal Investigation, patrol division, fiscal management, and recruitment & training.

Law Enforcement is comprised of seven districts: Chinle, Crownpoint, Dilkon, Kayenta, Shiprock, Tuba City, and Window Rock. Each district is commanded by a Police Captain, except three districts which are commanded by a Police Lieutenant. Each Commander has oversight of Criminal Investigations, Uniform Patrol, and Support Services.

Currently, the Navajo Nation Law Enforcement has 319 Police Officers, several Criminal Investigators, and a civilian support staff of 279. The number of police officers per population of 1000 is 1.9 as compared to 2.5 per 1000 at the national level.

The majority of personnel costs are funded by federal contracts and grants. The operational costs are funded by Navajo Nation General Funds.

The following table provides information about the districts that serve the FBFA chapters.

Chapter	Navajo Police District Office
Bodaway-Gap	Tuba City District
Cameron	Tuba City District
Coalmine Canyon	Tuba City District
Coppermine	Tuba City District, LeChee Sub-Station
Kaibeto	Tuba City District
Leupp	Dilkon Sub-station
Tolani Lake	Dilkon District
Tonalea	Tuba City District
Tuba City	Tuba City District

Table 3: Navajo Police Districts Serving the FBFA

3.6.3.2 Fire

Domestic fire response is coordinated through the Division of Public Safety's 911 emergency response.

The Navajo Nation Department of Forestry, within the Division of Natural Resources, is tasked with fire management on Navajo forest lands. It has seven fire trucks, a helicopter, and one hotshot crew of 20.

3.6.3.3 Emergency Response

Emergency response is coordinated by the Division of Public Safety through 911 emergency response. Police Dispatch is responsible for routing ambulance or fire. Individuals can also call the fire station directly to request response.

3.6.3.4 Hazard Plans

No information could be found about existing hazard plans for the former Bennett Freeze area. It is recommended that hazard plans be produced, in order to properly prepare for large scale emergencies that will require significant cooperation and coordination among responding agencies. Federal agencies have been moving toward requiring hazard plans as a condition of receiving federal funds.

PUBLIC SAFETY FACILITIES

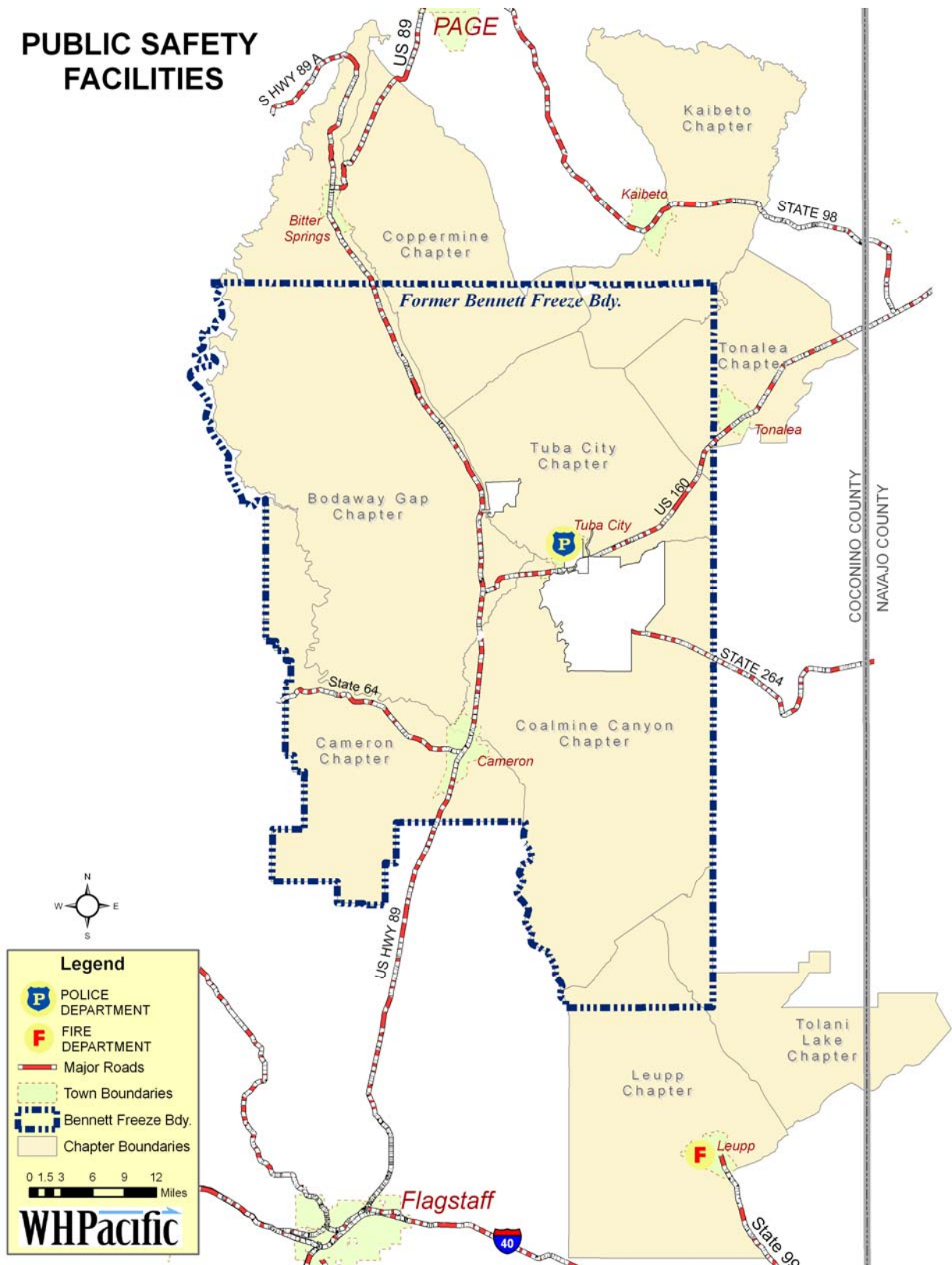


Figure 25: Public Safety Facilities in the FBFA

3.6.4 Windmills, Livestock Storage Tanks, and Earthen Dams

Tribal rangers, within the Department of Resource Enforcement, help keep an eye on windmills and other livestock water infrastructure.

The Department of Water Resources Technical, Construction and Operations Branch (TCOB) provides preventative maintenance and repairs for water storage tanks, earthen dams, irrigation facilities, and other facilities that provide water for either livestock or crops. TCOB will repair livestock and agricultural irrigation facilities up to two times if they are vandalized, after which the chapter must pay for and prevent vandalism.

The TCOB field offices that serve the FBFA are in Tuba City and Leupp.

3.6.5 Range Enforcement

Range enforcement is coordinated between grazing officers at each chapter, who provide local administrative and advisory services and report to the Grazing Management Office in the Department of Agriculture, and tribal rangers through the Department of Resource Enforcement. Both are housed within the Division of Natural Resources. Land and grazing disputes are handled at the district level through hearings with the District Grazing Committee, Land Board, or Farm Board. Cases that cannot be resolved at this level are referred to the Office of Hearings and Appeals. Thereafter they go to the Navajo Supreme Court.

Livestock is managed and enforced through the Department of Resource Enforcement and the Navajo Veterinary Livestock Program in the Department of Agriculture, including the animal identification program.

Livestock and equine owners are responsible for annual vaccinations and deworming to prevent disease and parasites. Livestock producers are also responsible for providing seasonal herd management and treatments, veterinary care, and nutritional support for all livestock and horses. Grazing permittees must also keep records, assist in grazing resource management, and dispose of animal carcasses in the proper manner.

3.7 Community Facilities, Parks, and Recreation

Initial planning, maintenance, and ongoing operation of community facilities, community parks, and local recreation facilities and opportunities are the responsibilities of the Chapter.

The Chapter initiates the process through conducting or requesting a needs assessment to determine whether existing resources are sufficient for proposed activities, or renovations, expansions, or replacements are needed, which would all be considered capital projects.

Once the need for a capital project is established, the Chapter, through its Community Land Use Planning Committee (CLUPC), proposes a location and initiates the process to withdraw the land for the specified purpose.

If a feasibility study has not been conducted up to this point, it is often performed to help determine the scope and program of the project and decide on the best location. Land surveys, archaeological clearances, and an Environmental Assessment (EA) – all necessary elements of the land withdrawal process – can be performed as part of a feasibility study. A feasibility study itself can be considered a capital project and can be requested as part of the chapter's Infrastructure and Capital Improvements Plan (ICIP) submitted yearly to the CIO.

3.7.1 Division of Community Development

The Division of Community Development, particularly its Capital Improvements Office (CIO) and Design and Engineering Services (DES), is responsible for the next stage in planning, funding, designing, and constructing community facilities, parks, and recreation facilities.

See more details about how these facilities come to life in **Section 2.3**.

3.7.2 Division of Social Services (DSS)

The Division of Social Services (DSS) administers block grants and funding for special projects, including child care development block grants. It provides programs for children and family services, advocacy, developmental disabilities, and financial assistance. DSS works through Design and Engineering Services (DES) in the Division of Community Development to design and construct new serve facilities.

The FBFA chapters are served by either the Fort Defiance or Tuba City regional offices. Fort Defiance Administration provides the following assistance and programs to serve the FBFA:

- Long Term Care Services
- Developmental Disabilities
- Financial Assistance Unit

- Little Miss Muffet Day Care Center
- Navajo Child Special Advocacy Program
- Shanidiine Youth Home
- Dilcon Sub Office

Tuba City provides the following assistance programs to serve the FBFA:

- Long Term Care Services
- Financial Assistance Unit
- Navajo Child Special Advocacy Program
- Kaibeto Sub Office
- South Regional Sub Office (Leupp)
- Leupp Youth Home

Several service programs were requested by chapter residents and community workshop participants, including financial assistance offices and long-term care services. Also requested was behavioral health services to address the very real trauma that generations of FBFA residents have lived through and continue to be impacted by its effects. These requests will need to be coordinated with the Division of Social Services to move forward with the request for new offices.

DSS works with chapters to determine what kind of services are needed. Chapters often serve as the first step in accessing services, such as financial assistance for paying bills, such as high costs of propane in winter months. Securing the personal information of residents who apply is important and must be kept protected. Chapters perform the first level of assessment about what kind of assistance is needed. Case management is then provided through DSS as needed, to ensure ongoing coordination of services.

The President's office would need to set out a policy, perhaps through executive order, to prioritize existing funding to serve FBFA residents. Once a Council Resolution is passed, DSS could work with the Former Bennett Freeze Area Task Force and FBFA chapters to implement needed programs and services.

3.7.3 Navajo Parks and Recreation Department (NPRD)

The Navajo Nation is comprised of essentially private lands, therefore all non-Navajo visitors must abide by and comply with the laws, regulations and policies promulgated by the Navajo Nation government, including those governing Navajo parks, monuments and recreation areas.

The Navajo Parks and Recreation Department (NPRD), a department within the Division of Natural Resources, was established in 1964 as the Navajo Nation's primary caretaker of special lands set aside for preservation. The mission of the Parks and Recreation Department is to wisely manage Navajo parks, monuments and recreation areas for the long-term benefit of the Navajo people and government.

Some of its goals include the following:

- Perform and carry out its role with respect for Navajo traditional values and customs;
- Listen and try to understand all perspectives and diverse points of view;
- Promote Navajo beliefs and values to the outside world;
- Strive for excellence, creativity and initiative in its operations;
- Treat all individuals with acceptance, integrity and respect; and
- Create enduring partnerships to foster conservation and preservation using innovative and traditional approaches.

NPRD is devoted to improving the quality of life of the Navajo people and local communities by developing recreational opportunities for Navajo people to enjoy the outdoors through activities that improve their overall well-being, promoting economic development and job creation, and improving infrastructure and real estate.

Navajo Parks and Recreation concentrates on outdoor and large-scale public parks. It is not involved with community parks or playgrounds or community facilities like recreational centers. It is able to fund major parks related projects, such as visitors centers in Navajo Nation parks through department revenue. In the past, Parks and Recreation has also worked with the Arizona Office of Tourism and Arizona State Parks to obtain money for park projects. Similar funds have been appropriated through the Arizona Department of Transportation via Scenic By-way funds.

There are two major parks in the FBFA in Cameron and Marble Canyon. For use and permits for areas in the former Bennett Freeze area, the Cameron Visitor's Center is located at the junction of Highway 89 and Highway 64 in Cameron, Arizona. Information and permits can be obtained for trails along the

Colorado River, Marble Canyon, Jackass Canyon, Salt Trail Canyon, Totahatso Point, Rainbow Bridge trails, Cove Mesa, Coalmine Canyon, and areas in the western portion of the Navajo Nation.

Several chapters requested new recreational trails, which should be coordinated with plans and existing trails under the jurisdiction of Parks and Recreation. If a regional recreation plan is to be conducted, Parks and Recreation would need to be involved as one of the lead agencies.

3.7.4 Arizona Department of Veteran's Services

Veterans Services Division provides a network of veterans benefits counselors who give information, counsel, and assistance to veterans, their dependents and survivors pertaining to federal and state benefits earned by honorable service in the armed forces of the United States. Veteran Benefits Counselors travel to all fifteen counties of Arizona. Coconino County is the service provider to veterans and their families within the FBFA.

Veterans benefits counselors help to process compensation and pension applications; appeal VA decisions; file for survivors death benefits; apply for aid and attendance and housebound benefits; certify claim documents; request military service records; upgrade military discharges; apply for special veteran license plates; provide information on general state benefits; and assist with questions about veteran benefits and entitlements.

3.7.5 Navajo Nation Department of Veterans Affairs

The Department of Veterans Affairs operates under the Division of Human Resources to advocate and provide administrative oversight and coordination of veterans programs and services of federal, state and tribal governments and private agencies.

Chapters work through the Western Agency Department of Veterans Affairs to create a veteran center, memorial, or veteran cemetery. Local veterans' organizations have been formally established by most chapters to address veterans' affairs. If a community cemetery already exists, Chapters in coordination with local veteran's group can set aside a site identified as veterans' cemetery. New requests would need to go through the Navajo Nation's and Chapter's process for site selection. This would also be a coordinated effort between the local Chapter and the local veteran's organization. This planning involves coordination with the Community Land Use Planning Committee (CLUPC) or Planning Commission and updating the Chapters' Comprehensive Land Use Plan.

COMMUNITY FACILITIES

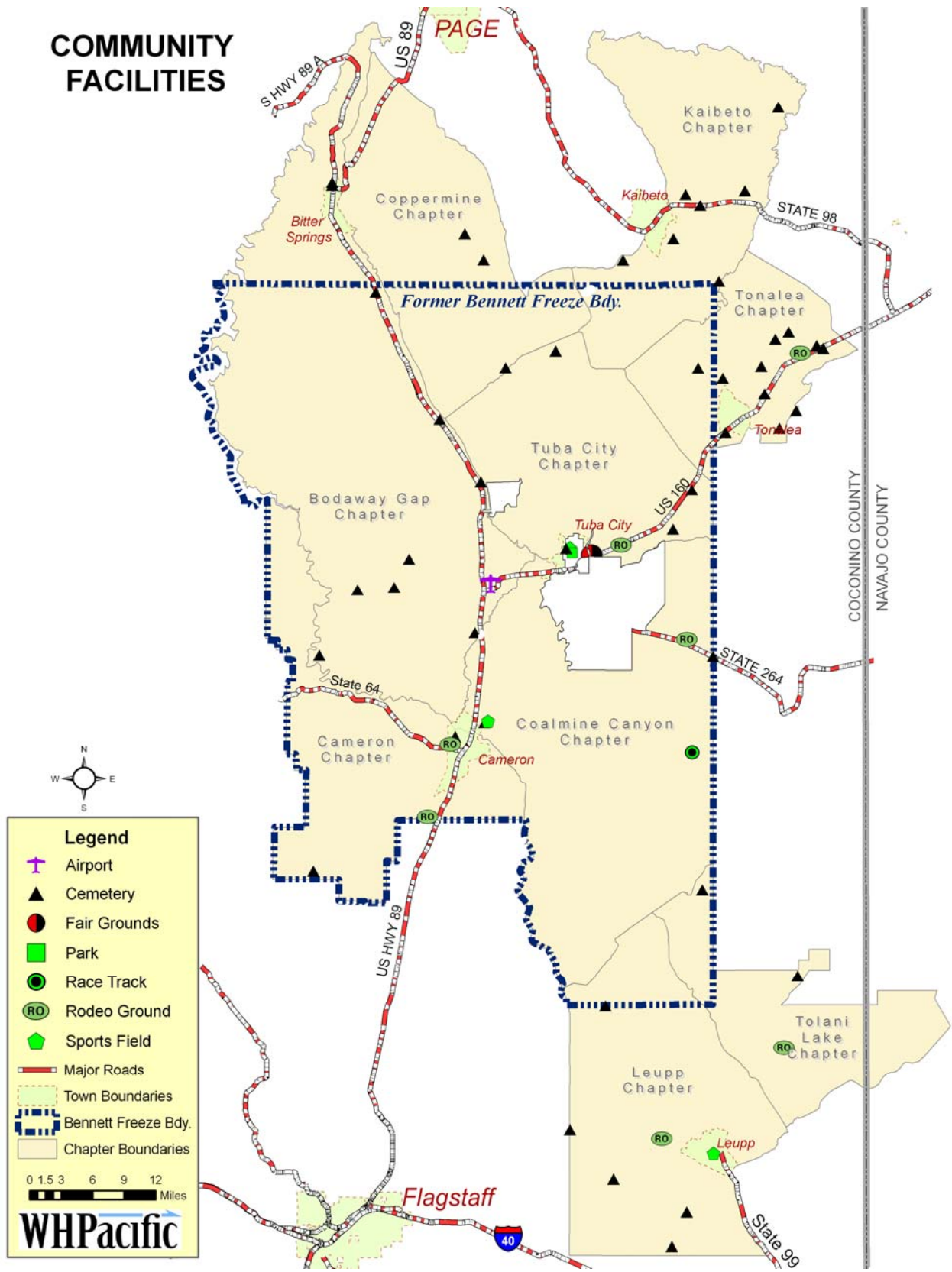


Figure 26: Community Facilities in the FBFA

3.8 Economic Development

The Navajo Nation is dedicated to building employment and business opportunities for its membership. Tribal Enterprises and Major Growth Centers on the reservation continue to be a part of the Tribe's goal for continual economic development growth and expansion for its members.

The Navajo Nation continues to use Growth Center Strategy to guide its economic development activity. The Growth Center Strategy is based on the theory that economic development gradually expands from major designated commercial areas to nearby and outlying regions.

Potential benefits from the Growth Center Strategy include:

- Providing employment opportunities
- Offering direct retail service to local consumers
- Developing an economic base for the community and surrounding areas
- Preventing the leakage of Navajo dollars to nearby border towns
- Providing opportunities for Navajo and Non-Navajos to go into business
- Generating revenue

The only major growth center in the FBFA is Tuba City. Leupp is a secondary growth center. Other secondary growth centers that are not in the FBFA but that may be relevant in terms of generating tourist traffic and job opportunities within the FBFA are the Chamber/Sanders Area, Dilkon, and Kayenta.

3.8.1 Tribal Enterprises

The Navajo Nation is the largest employer on the reservation. Creating employment opportunities for people develops local economies, as workers raise the quality of life for themselves and others and spur small business development, retail activity, local consumption, and tax revenue in their communities. There are 12 enterprises on the Navajo Nation, owned and operated by the Navajo tribe.

- Navajo Tribal Utility Authority (NTUA)
- Navajo Agricultural Products Industry (NAPI)
- Navajo Arts & Crafts Enterprise (NACE)
- Navajo Nation Hospitality Enterprise (NNHE)
- KTNN/KWRK Radio Stations
- Diné Power Authority (DPA)
- Navajo Nation Oil & Gas Company, Inc. (NNOGC)
- Navajo Nation Shopping Centers (NNSC)
- The Navajo Times
- Navajo Transit System (NTS)
- Navajo Engineering & Construction Authority (NECA)
- Navajo Housing Authority (NHA)

3.8.2 Navajo Nation Division of Economic Development (DED)

The Division of Economic Development (DED) is a department within the executive arm of the Navajo Nation with the sole purpose of creating an environment that is conducive to promoting economic development through business services in commercial, tourism, industrial, small business and other sectors of the Navajo Nation economy. The DED is available to Navajo and non-Navajo individuals and companies that wish to do business with or on the Navajo Nation. The main objectives of the DED are to create employment opportunities for the Navajo people, enhance economic development, provide technical business assistance, and develop and manage a comprehensive financing program.

The division's current priorities include new job growth, utilizing the designated growth centers to generate new business opportunities, and focusing on the industrial and tourism development sectors.

The Small Business Development Department (SBDD) is the largest of the six departments within the Division of Economic Development (DED) of the Navajo Nation. The Small Business Development Department includes a central administrative office located in St. Michaels, Arizona and seven Regional Business Development Offices (RBDOs) located throughout the Navajo Nation.

The SBDD manages Navajo Nation Business Site Leasing and administers the two DED lending programs; the Business Industrial Development Fund (BIDF) and the Micro Enterprise Loan Program (MELP). The SBDD also provides technical assistance and support for small business owners and entrepreneurs. RBDOs are the local representatives for the Division of Economic Development and the department provides outreach for the DED programs (i.e. Business Preference Certification, Tourism, etc.). The Tuba City RBDO serves the entire former Bennett Freeze Area.

The Tuba City RBDO provides several services for business owners in the former Bennett Freeze Area, including:

- Training on business plans, marketing, customer service, and accounting;
- Assistance with business site leasing, sub leases, securing land and modification of leases;
- Land withdrawals for economic development;
- Guidance on obtaining funding for infrastructure;
- Administration of the micro-enterprise loan program; and
- Assisting Navajo-owned businesses with certification for preference in the construction industry.

ECONOMIC DEVELOPMENT

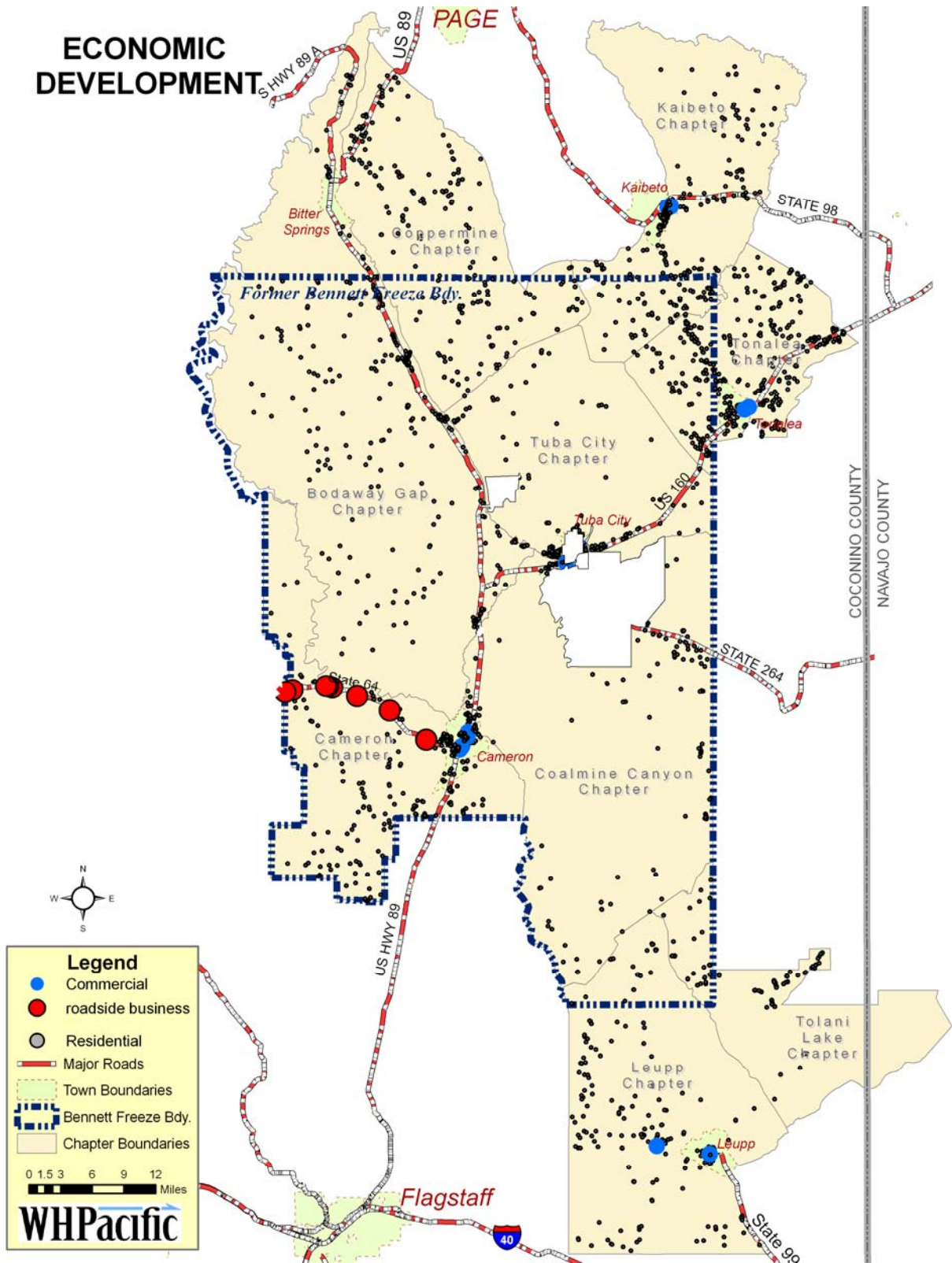


Figure 27: Economic Development in the FBFA

3.9 Natural and Cultural Resources

The Division of Natural Resources, established in 1976, has eleven branches in order to serve its mission to manage, protect, preserve, and conserve, Navajo Nation's natural and cultural resources for the benefit of the Navajo People.

3.9.1 Navajo Nation Department of Fish and Wildlife

The Navajo Nation Department of Fish and Wildlife is responsible for developing and recommending policies, rules, and regulations and management plans relating to the fish, wildlife, and native plant resources on the Navajo Nation; and to provide predator and animal control services on the Navajo Nation. The Department consists of Wildlife Enforcement, Research & Management, Natural Heritage Program, and Animal Damage/Animal Control Sections.

3.9.2 Navajo Parks and Recreation Department (NPRD)

The Navajo Parks and Recreation Department (NPRD), a department within the Division of Natural Resources and described in more detail in **Section 3.9**, protects natural resources as part of its mission to manage large-scale Navajo parks and recreation areas on lands set aside for preservation for the long-term benefit of the Navajo people and government.

One of its goals emphasizes the need for enduring partnerships to foster conservation and preservation using innovative and traditional approaches.

Other operations that may be relevant to the FBFA area and chapters include its Fair Office, the Little Colorado River Gorge in Cameron, AZ and the Antelope Canyon Tribal Park in Page, AZ.

3.9.3 Navajo Abandoned Mines Land (AML) Reclamation Department

The Navajo AML Reclamation Department implements, administers and conducts reclamation of abandoned mine lands within the Navajo Nation in a cost-effective and safe manner.

In addition to its mission to reclaim abandoned mine lands to standards set by the U.S. Environmental Protection Agency and the Navajo Nation, the AML Department has implemented programs to assist communities affected by mining operations to build infrastructure and community facilities that stimulate economic development and improve the overall quality of life for residents.

As of 2000, its “Public Facility Project” (PFP) provides Navajo communities/chapters with funds to renovate and construct community public facilities and utilities through competitive grants.

It is also committed to developing and promoting a Geographic Information System (GIS) for data, which could benefit many other existing departments who are also working to develop and maximize the benefits of GIS for their own operations.

AML also provides oversight to the DOE, which is responsible for ensuring that the ground water remediation at the Tuba City Disposal Site continues to protect human health and the environment. The uranium contamination will remain potentially hazardous for thousands of years. The general license under which DOE operates the disposal cell advises that it be designed to be effective for 1000 years, to the extent that that can reasonably be achieved, and for a minimum of 200 years. The general license has no expiration date, and DOE has ongoing and indefinite responsibility for the safety and integrity of the Tuba City Disposal Cell.

3.9.4 Navajo Forestry Department

The Navajo Forestry Department is tasked with managing the Nation’s forests, including research and development, deforestation and disease control, timber and fire management.

The Department manages its own Forest Rangers and maintains its own land data and maps. Homesites are not to be issued on forest lands.

3.9.5 Navajo Nation Minerals Department

The Navajo Nation Minerals Department administers and manages the Navajo Nation’s minerals and energy-related resources. Notable among the Nation’s mineral wealth are substantial reserves of oil, gas, and uranium, as well as extensive surface mineable coal deposits. The major portion of the Navajo Nation’s General Fund revenue is derived from the development of minerals and energy exploration and development resources.

The department acts as a clearinghouse for all minerals projects, processes applications to conduct geologic studies and reviews all applications for energy-related rights-of-way. It provides assistance to the Navajo Nation Energy Resources Negotiation Team and other designated Navajo Nation entities negotiating mineral contracts, minerals exploration and development proposals, and large energy related right-of-way projects.

The department also acts as a liaison between the Navajo Nation and the Oil & Gas and Mining Industries, and federal agencies on exploration, development and production of minerals and resources, and reclamation of mined land.

The Minerals Department has several programs to carry out its duties and responsibilities. The Minerals Audit Program, working with the U.S. Department of Interior Minerals Management Service, is responsible for ensuring the Navajo Nation receives a fair market value for its mineral resources through enforcement of applicable lease terms, Federal regulations, policies and directives.

The Oil & Gas Inspection and Enforcement Program, in cooperation with the U.S. Bureau of Land Management (BLM), performs inspections on oil and gas leases.

The Solid Minerals Management Program oversees existing solid minerals development agreements, assists with developing new mineral projects, and processes applications for new and renewed minerals exploration permits.

The Office of Surface Mining Program oversees the reclamation of coal mined lands on the Navajo Nation. The program includes staff with knowledge of agriculture, biology, chemistry, explosives, mining engineering, hydrology, and reclamation to assure tribal members the land returned to them is useful after mining.

The Mine Safety & Health Inspection Program provides mine safety and health inspections of mining operations of the Navajo Nation and also provides mine safety training to mine workers, pursuant to training plans approved by the U.S. Mine Safety and Health Administration.

3.9.6 Navajo Resource Enforcement

Navajo Resource Enforcement includes tribal rangers that help enforce grazing permits. There are two ranger stations, but both are far from the FBFA. One is in Chinle and the other in Shiprock.

The Navajo Nation Council is considering a recent proposal to consolidate all enforcement personnel – rangers with Fish and Wildlife, Forestry, Animal Control, and Environmental Protection Agency – within this office.

3.9.7 Navajo Agricultural Department

The Navajo Department of Agriculture includes the Grazing Management Office, the Tribal Ranches Program, and Agency Offices for grazing districts.

The Western Agency Office is in Tuba City and does include a veterinary clinic.

More information about its interaction with Farm Boards is provided in **Section 2.1.3.2**, and more detail about its programs are found in **Section 3.6.7**.

3.9.8 Navajo Land Department

The Navajo Land Department has agency officers to help review and administer homesite leases and other Navajo Nation leases.

Sub offices receive and process homesite lease applications. They also provide services to the public to complete their applications and their field survey plats. Sub offices also coordinate and assist communities to withdraw land for development. Sub office staff attend chapter meetings and can assist with concerns about homesites. Tuba City Land Office provides these services for the FBFA chapters.

A flowchart and sample application for a homesite lease is included as **Appendix 7.10**. The Land office provides surveys; title and records searches; appraisals; GIS information; and drafting services.

It also administers the Native American Housing Assistance and Self Determination Act (NAHASDA) projects in coordination with NHA and the Community Housing and Infrastructure Department.

The value of grazing rights is also determined by the Navajo Nation Land Department, typically based on the number of “sheep units” held by the permittees. Each land owner negotiates with and is given payment directly from the NN Land Department when they release their grazing rights. The process to release grazing rights is reviewed by the Chapter grazing official.

The Land Office maintains a GIS database of land-use for the Nation that is available to the public. Part of its mission is to coordinate and administer all digital information on Navajo Nation lands. Eventually, it should be able to incorporate information from the Department of Agriculture on lands dedicated to grazing because of grazing permits, Navajo forest land, U.S. National Park land, and BIA lands. Close coordination will also be needed with the Historic Preservation Department, which maintains paper maps of “areas of avoidance” that are cleared on a site-by-site basis as project proposals develop.

The Navajo Land Office assists the BIA and Branch of Roads in obtaining right-of-way clearance. It performs title searches and field investigations and obtains land user's consents for granting right-of-way.

The Office of Navajo Hopi Indian Relocation handles homesite lease applications for certified clients from the Hopi Partitioned Lands. ONHIR reviews homesite lease applications, conducts surveys, and finalizes leases.

3.9.9 Navajo Nation Archaeology Department

Established by the Navajo Nation Council, the Navajo Nation Archaeology Department is responsible for providing cultural resource services (not compliance review) to sponsors of project proposals. Sponsors include the Diné people, tribal government entities and departments, federal and state government agencies, and private industry in need of cultural resource services on lands of historical Diné interest. The Department fulfills these needs in accordance with all applicable federal, tribal, and state laws and regulations.

This mission includes the following activities:

- Protecting and conserving the Navajo Nation's cultural resources and Diné cultural heritage in a manner consistent with Diné cultural values, while also facilitating needed infrastructure growth and development.
- Becoming the leading provider of high quality, innovative, cultural resource services on Navajo Nation lands and in surrounding areas of traditional interest.
- Forming and maintaining strategic working relationships with Diné communities and project sponsors through diversified marketing, and public outreach in a fashion that is both culturally sensitive and scientifically valid.
- Being responsive to the needs of the Diné people, our clients, and partners by soliciting and considering public input, and through providing reliable, timely professional service.
- Maintaining the Department's national leadership in indigenous cultural resource management by sustaining and improving the Student Training Program, and continued placement of qualified Diné into management positions.
- Becoming self-sufficient, thus allowing the Navajo Nation to maintain its sovereign capability to manage its cultural resources and protect Diné cultural heritage through the Department.

NNAD currently operates three offices. The nearest to the FBFA is located in Flagstaff, AZ in partnership with Northern Arizona University (NAU). The NNAD does perform homesite surveys for a flat rate of \$260 as of 2008. It does

not perform this service if the site is in dispute or if it is within the boundaries of Navajo forests without approval from the Navajo Forest Department.

The NNAD offers a group discount rate of \$208 for three or more sites that are close to each other and tips for elderly and disabled residents and veterans to receive financial assistance. There is a mechanism to request that NNAD offer the service for free as a gesture of aid to the community. See the packet included in the **Appendix 7.10**.

GRAZING, AGRICULTURE, AREAS OF AVOIDANCE

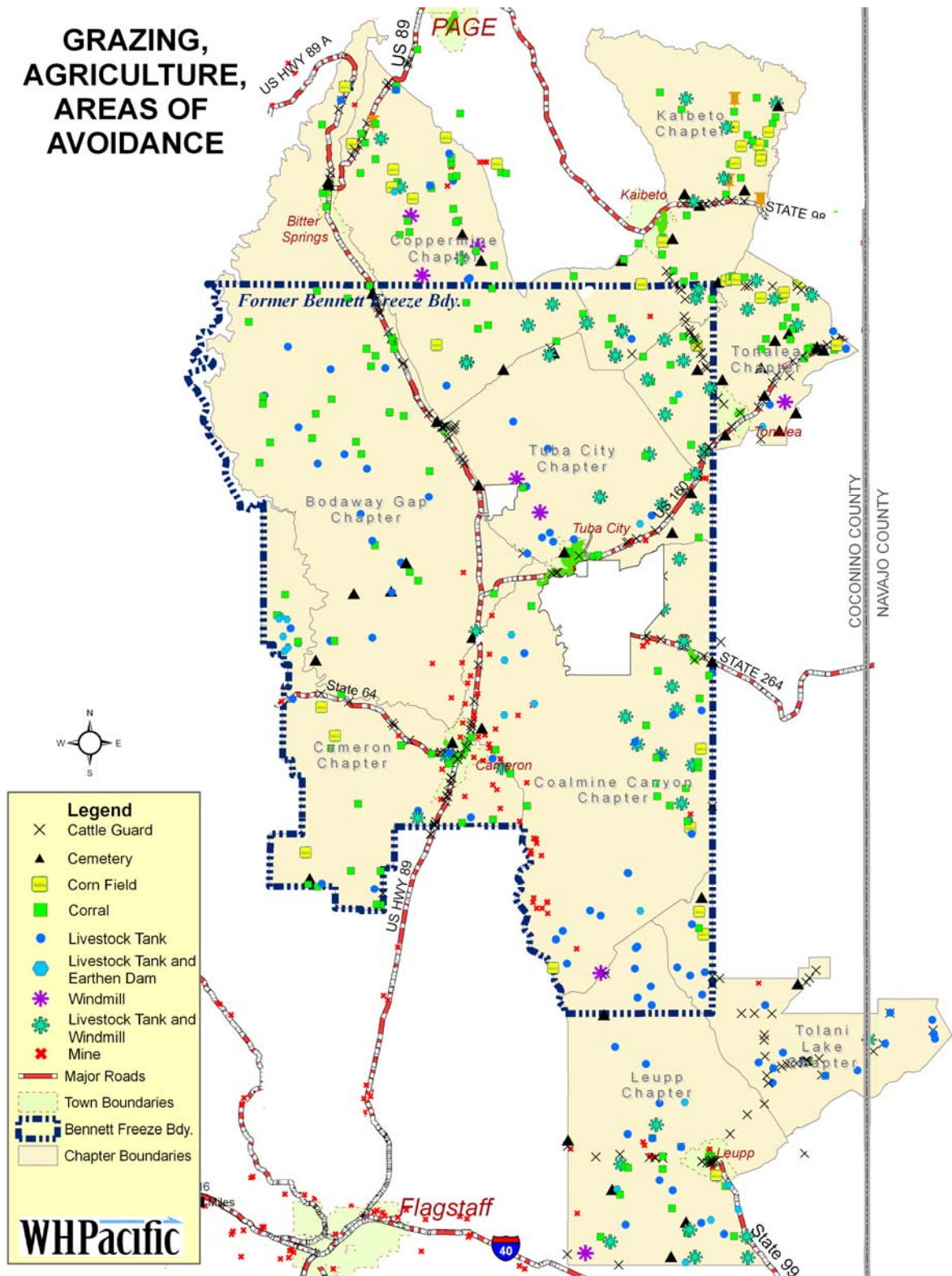


Figure 28: Grazing, Agriculture, and "Areas of Avoidance" in the FBFA

3.9.10 Department of Water Resources

The Department of Water Resources, described fully in **Section 2.1.1.1**, operates four branches, including Water Management, Water Code Administration – which issues water drilling permits – Dam Safety Branch, and the Technical, Construction and Operations Branch (TCOB).

TCOB is responsible for planning, design, constructing, and operating water infrastructure to serve ranchers and farmers. Well development and rehabilitation of livestock facilities provides adequate water to sustain the tribal economy and promote the self-sufficiency of communities and families.

The TCOB provides livestock well facilities, irrigation systems, water lines for livestock use, domestic facilities, natural springs and dug wells, windmills, hand pumps, and earthen stock ponds, also referred to as earthen dams. These services include drilling wells, providing and maintaining water storage tanks, and rehabilitating earthen dams. Livestock holders pay a certain fee to water resources for providing these services. These services are not provided on Navajo Partitioned Lands (NPL) or on the Department of Agriculture's tribal ranches.

Water Resources also maintains several river systems, but none in the Western Agency. The Dam Safety Branch operates in cooperation with a federal program. In the FBFA, it has jurisdiction over the dam in Diablo Canyon. In cases of emergency in a spillway, residents should call emergency management.

TCOB can help to perform feasibility studies for earthen dams, livestock watering points and windmills, and other livestock and irrigation water infrastructure needs.

Tribal rangers, within the Department of Resource Enforcement, help keep an eye on windmills and other livestock water infrastructure. TCOB will repair these facilities up to two times if they are vandalized, after which the chapter must pay for and prevent vandalism.

Many agriculture and grazing needs were identified by community members during planning workshops. Because they are interrelated due to water needs and implications for the land, a study is recommended to further refine the needs and best method of providing for them, which can be found in **Section 4.7**.

3.9.11 Navajo Nation Historic Preservation Department (HPD)

The Navajo Nation Historic Preservation Department (HPD) is responsible for the protection, preservation, and management planning for the Navajo Nation's traditional cultural properties. HPD was established in 1986 in Window Rock, AZ to assume the Navajo Nation's responsibilities for management and preservation of cultural resources. In compliance with Section 101(d)(2) of the NHPA, HPD has formally assumed the responsibilities of the SHPO with respect to Navajo tribal lands.

- Cultural Resources Compliance Program
- Facilities Management Program
- Forestry Program
- Roads Planning Section Program – Flagstaff Office
- Traditional Culture Program

HPD's primary and most important goal is the preservation of the Navajo Nation's cultural resources, with special emphasis on the resources and preservation concerns important to the Navajo people. An additional primary goal is to train Navajos as qualified cultural specialists so they may represent the Navajo people in tribal preservation dialogue.

HPD is the tribe's lead agency on cultural resource matters, advising the Navajo Nation Council and the President of the Navajo Nation, and other federal, state and tribal departments and agencies. This role includes reviewing proposed projects for potential effects to cultural and historical properties within the Section 106 review process concerning federal undertakings; creating and administering a cultural resource database; administering a program for issuing permits cultural resources investigations and ethnographic research; and administering a program to reduce and control looting and vandalism of archaeological sites.

In its capacity to protect sacred, ceremonial, and cultural sites, the Navajo Nation Historic Preservation Department shares a responsibility for protecting springs, habitat, and mineral resources used for religious or cultural purposes.

It is assumed the HPD is tasked with implementing the procedures to protect the sacred sites, habitats, and corridors named in the 2006 Intergovernmental Compact between the Navajo Nation and Hopi Tribe, ending the FBFA dispute, described in detail in **Section 2.1.2.2** and summarized in **Section 3.10.1.2**.

3.9.11.1 Navajo Nation Register of Cultural Properties

The Navajo Nation maintains a Register of Cultural Properties to protect cultural resources. Many types of material objects and physical places are considered cultural resources, such as sweat lodges, pray offering

sites, burial sites, ceremonial sites, and other landmarks. The Navajo Nation Historic Preservation Department does not reveal the locations of sensitive cultural sites due to the potential for vandalism, robbery, and the need to protect privacy.

3.9.11.2 Navajo-Hopi Intergovernmental Compact to Resolve FBFA Dispute

As described in detail in Section 2.1.2.2, the Intergovernmental Compact between the Navajo Nation and the Hopi Tribe, signed in 2006, contains provisions to protect sacred ceremonial sites and springs, access corridors to and from such sites, gathering locations for minerals used in ceremonies, and sacred species habitats, including Golden Eagle, hawk, and plants used for ceremonial purposes, in the FBFA.

The Compact places limits on the number of Golden Eagles and hawks that can be collected per year by a Hopi tribal member or relative, and it calls for establishing a Board to study and recommend measures to improve habitat and population numbers for the Golden Eagle.

Hopi religious practices specifically require access to and along the Hopi Salt Trail and from Hopi villages to the Grand Canyon. Navajo religious practices require the ability to construct shelters and other structures at religious sites.

The exact locations of sacred sites, corridors, gathering sites, and habitats are kept confidential. The Compact provides a permanent, irrevocable, non-exclusive, prepaid conservation easement for sites that are mapped in exhibits to be shared only with elected officials and relevant staff at either the Navajo Nation or Hopi Tribe. It is assumed the Navajo Nation Historic Preservation Department, described in detail in Section 3.6.1, is tasked with implementing the procedures to protect the sacred sites, habitats, and corridors.

The Compact specifies a procedure to assure Hopi notice and approval of all development on Navajo land in the FBFA within 800 meters of sacred sites and establishes a Joint Commission to resolve future disputes that cannot be negotiated successfully at the personal or departmental levels.

The 2006 Intergovernmental Compact is included in the Appendix 7.6.

3.9.12 BIA Fort Defiance Agency Branch of Natural Resources

The HPD assumed Bureau of Indian Affairs' (BIA) staff responsibilities for the management of cultural resources on Navajo lands (years before formal recognition as a Tribal Historic Preservation Office under section 101(d)(2) of the NHPA), under an Indian Self-determination and Education Act contract. Thus, for federal undertakings on Navajo Nation lands for which BIA is the lead agency, HPD conducts the work previously carried out by BIA staff. In this capacity, HPD staff prepare all of the documents and make recommendations to the Navajo Regional Director on all decisions for which she is responsible pursuant to Section 106 compliance.

BIA's Natural Resources shares responsibility for range conservation, soil and water conservation, and livestock management with the Navajo Nation's Department of Agriculture.

Its biggest task is to administer grazing permits and land-use permits on several of the Nation's grazing districts. It also has noxious weed management and range management programs.

On BIA land, the agency plans, implements, and reviews soil and moisture conservation projects for both rangeland and farmland. The agency performs land surveys, design, and compliance checks for range improvement projects such as earthen dams and waterlines. It also provides agriculture education and outreach to the public.

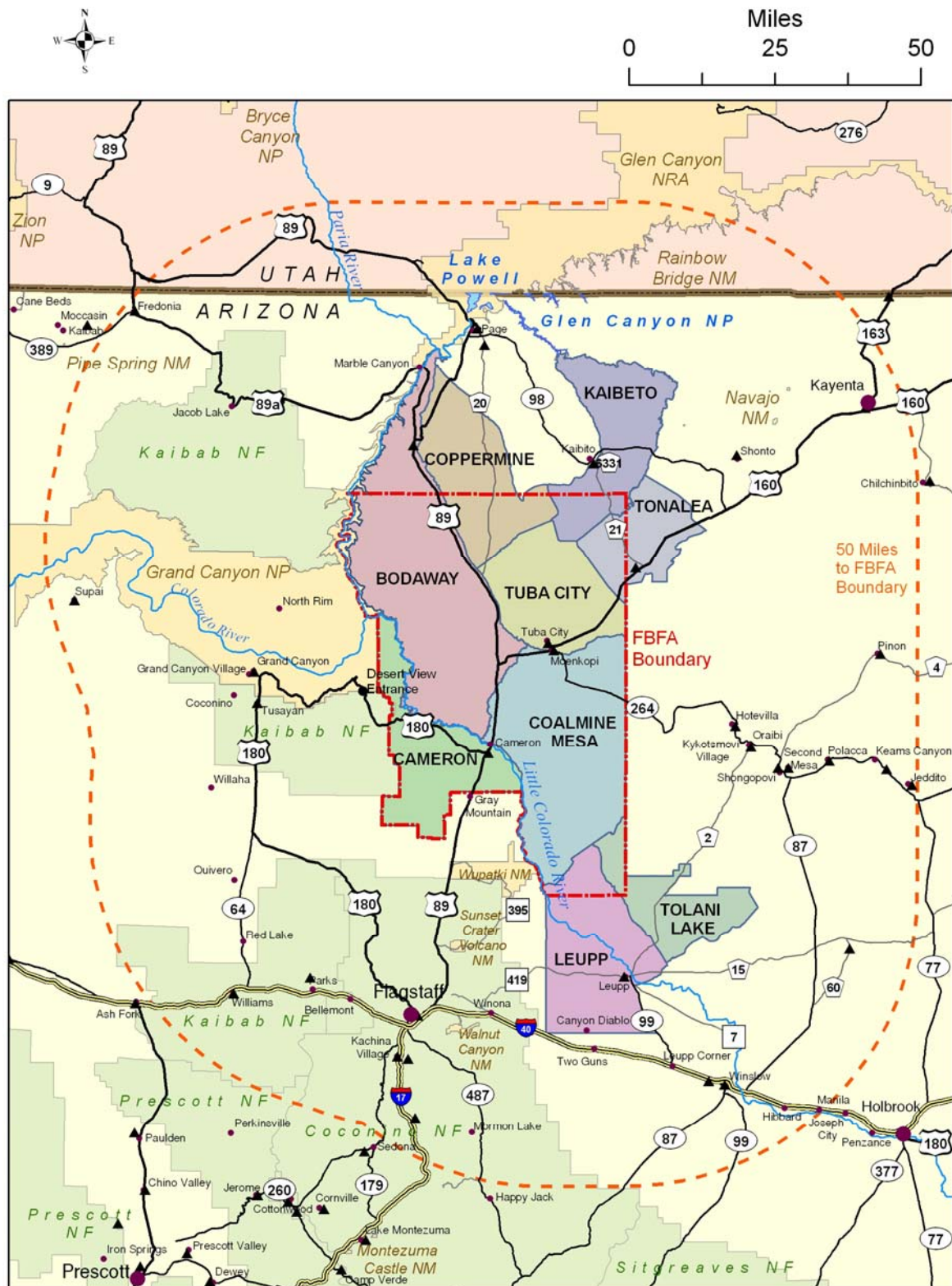


Figure 29: Regional Parks and Recreation Areas near the FBFA

Source: Sites Southwest, LLC

INFRASTRUCTURE AND UTILITIES

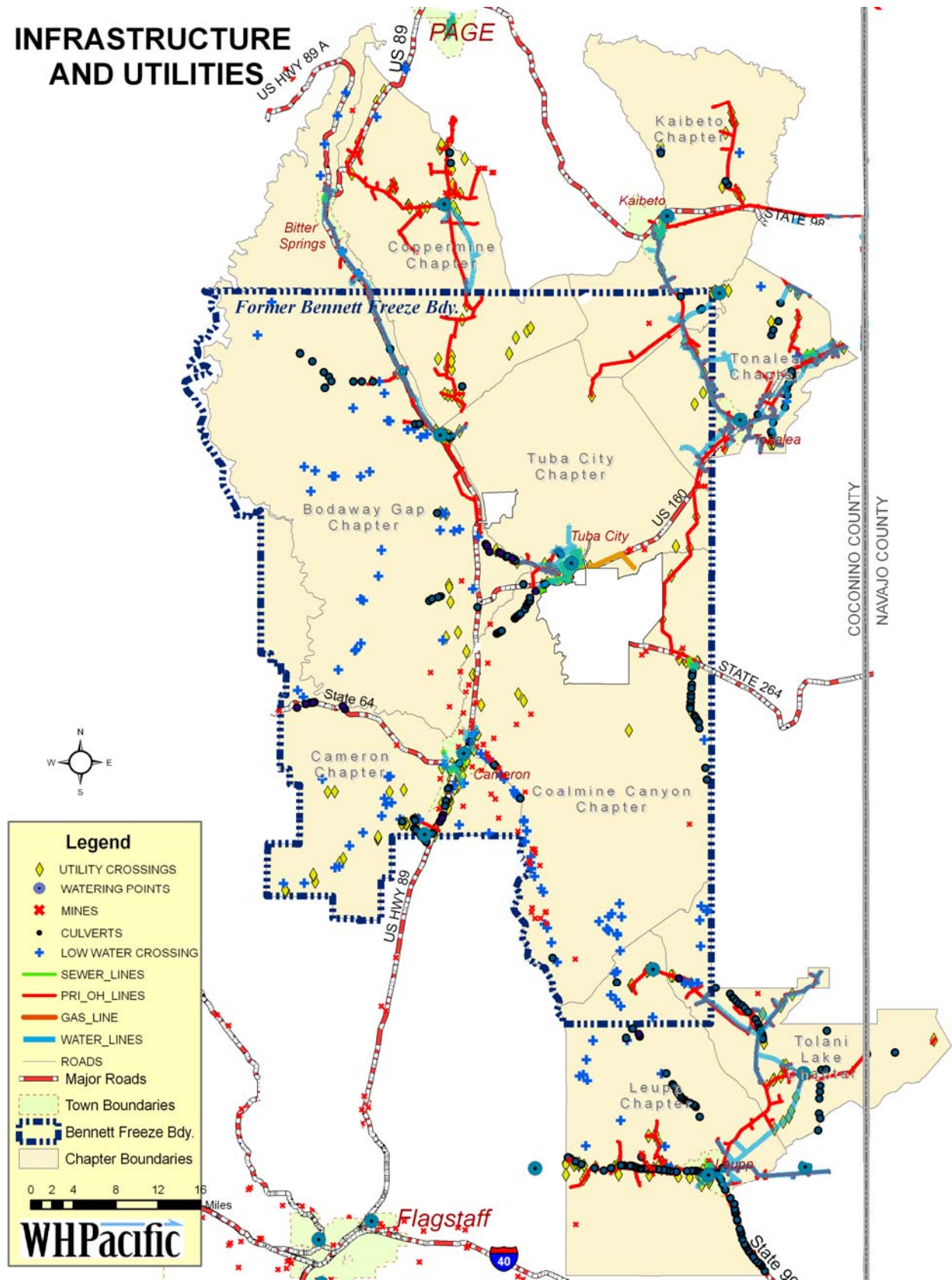


Figure 30: Infrastructure & Utilities in the FBFA

3.10 Education

3.10.1 Division of Diné Education

The Division of Education provides the following main services:

- Administration
- Department of Headstart
- Scholarship and Financial Assistance
- Library System
- Office of Diné Science, Math and Technology / Rural Systemic Initiative (RSI)
- Special Education / Rehabilitation Services
- Office of Diné Culture, Language, and Community

Headstart is a federal program designed to provide beneficial early childhood experiences for Navajo children to attain a greater degree of social competence and lay the foundation for a lifetime of learning. The program is part of the Administration on Children, Youth and Families in the Department of Health and Human Services.

A well-established, though still an innovative program, Head Start has had a strong impact on communities and early childhood program across the country. The program is locally administered by community-based non-profit organizations and school systems. Grants are awarded by the Department of Health and Human Services Regional offices, except for American Indian programs, which are administered in Washington, D.C. Tuba City has the regional office for the Head Start Program to serve the FBFA.

The Office of Navajo Nation Scholarship and Financial Assistance (ONNSFA) Program's purpose is to serve eligible Navajo people and provide them the opportunity to achieve their educational goals. This opportunity is provided as a privilege with the intent that recipients, upon graduation, will return to the Navajo Nation to apply their learning to benefit the continuing development of the Navajo Nation. It has a regional office that operates out of Tuba City to serve the FBFA chapters.

The Office of Navajo Nation Library intends to provide educational, informational, cultural, and recreational materials, activities and services to residents of the Navajo Nation in accessible, convenient locations. It has locations in Window Rock and Navajo, New Mexico.

The Office of Diné Science, Mathematics, and Technology (ODSMT) / Navajo Nation-Rural Systemic Initiative (NN-RSI) was established to enhance the academic achievement of Navajo students in those areas. RSI is responsible for initiating school reform in science, math, and technology by assisting schools on or near the Navajo Nation to dramatically improve education in those areas in Navajo schools.

The program has established working relationships with Diné College, the Navajo North Central Accreditation Office, the Office of Teacher Education Program and the Office of Diné Culture, Language and Community.

ODSMT/NN-RSI maintains a central office and ten suboffices within the boundaries of the Navajo Nation. A Tuba City suboffice serves most FBFA chapters, and a suboffice in Leupp, the Little Singer Office, serves the others.

The Office of Special Education/Rehabilitation (OSERS) operates an office out of Tuba City. The Teacher Education Program also has a Tuba City Agency, as does the Office of Diné Youth. The Division of Diné Education also provides the Diné Technical Assistance & Assessment Services, Early Intervention Program, and the Navajo Book Project.

Of these services, the most relevant to the FBFA recovery include Headstart; scholarship programs; and culture, language, and community assistance. Many communities requested additional Headstart facilities. Several communities want to provide scholarships to youth in return for a commitment of community service for a certain number of years after graduation. Communities also want to build Lifelong Learning Centers, where residents could learn and share knowledge of cultural practices like weaving and traditional medicine, provide Navajo language classes, and pass on knowledge of sacred sites and how to care for them. Residents were also interested in incorporating Navajo language learning into the school curriculum, which may require local schools versus public schools.

3.10.2 Bureau of Indian Affairs (BIA)

The BIA operates kindergarten-high school facilities on tribal lands through its Bureau of Indian Education (BIE). The majority of education and residential programs are operated by tribes through local school boards funded by grants or contracts with the BIE. All schools are empowered through the BIE's policy of local control and the federal policy of Indian self-determination.

Schools tend to be small, with 60 percent of them enrolling 250 or fewer students. Almost 75 percent of the 175 schools are elementary schools only. Thirty-four percent of the 130 elementary schools have grades ranges of kindergarten only to kindergarten through sixth grade. Thirty-nine schools offer a Family and Child Education program. Most students continue their education at a public high school. There are only 45 schools providing a secondary education program in the BIA school system.

Approximately 11,500 students reside in dormitory programs while they attend school away from home. Fifty-six schools provide residential programs. There are 14 peripheral dormitories where students live and attend nearby public schools. The peripheral dormitories provide "home-living" programs that offer activities to enhance student learning.

Schools are organized in district-like clusters by Area/Agency offices. An Education Line Office has responsibility for providing various services depending on whether a school is Bureau-operated or tribally-operated.

The following schools provide facilities near the FBFA:

- Greyhills Academy High School – Grades 9-12, located in Tuba City, available to students from FBFA and other areas
- Kaibeto Boarding School – K-8 school in Kaibeto, AZ, just outside the FBFA boundary.
- Tonalea School (Red Lake) – K-12 school in Tonalea, AZ.
- Tuba City Boarding School – K-12 school in Tuba City.
- Dilcon Community School – located just outside of FBFA in Dilcon AZ, 40 miles north of Winslow, most likely to serve students from Tolani Lake and Leupp.
- Leupp School, Inc. – K-12 school, located in Leupp, AZ.
- Little Singer Community School – K-8 school, located 15 miles east of Leupp.
- Holbrook Dormitory, Inc. – located east of Winslow in Holbrook. Students reside in a dormitory and are able to attend as students in Holbrook Public School system.

- Winslow Residential Hall – located in Winslow, AZ. Students reside in a dormitory and are able to attend as students in Holbrook Public School system.
- Seba Dalkai Boarding School – K-8 school, located approximately 40 miles east of Tolani Lake and Leupp communities.
- Kinlani Bordertown Dormitory – Grades 9-12, located in Flagstaff. Students reside in a dormitory and are able to attend Flagstaff Public School system.
- Naa Tsis Ana Community School – K-12 school, located in Navajo Mountain, most likely to serve students from Kaibeto and Tonalea. Students are able to living in a dormitory.

While the BIA does operate boarding schools in the FBFA, these were not a focus for community residents, and no related projects were requested.

3.10.3 Schools Serving the FBFA

The majority of schools that serve FBFA students are public schools in either Page or Tuba City Unified School Districts, funded and administered through the Department of Education at the State of Arizona. The following sections provide more details about the schools available to students in each chapter.

3.10.3.1 Bodaway-Gap

Presently, there are only three schools within the Chapter: the Gap Head Start, the Gap Pre-School, and Tsinaabaas Hibitiin grade school.

Students from the Chapter attend Page, elementary to high school, Tuba City Public Schools (including high school), and Greyhills High School.

3.10.3.2 Cameron

The Chapter elementary school is part of the Tuba City Unified School District 15, which is part of the State of Arizona public school district. The school offers multi-age classrooms ranging from kindergarten through sixth grade.

Total student enrollment as of Fall of 2003:

Cameron Pre-School & Homebase	25
Dzil Libei Elementary School	140

3.10.3.3 Coalmine

There are no schools within the Coalmine Canyon Chapter. All children attend schools in Tuba City, either Tuba City Public Schools, Tuba City Boarding School, or the Greyhills High School. Diné College recently built an office and classroom building in 2003. The Navajo Nation Head Start is located behind the Tuba City Chapter House.

3.10.3.4 Coppermine

The Chapter has no educational facilities, although as of 2003, the profile reported a pre-school. Chapter area students attend area schools in Page, Kaibeto, or Tuba City, and post-secondary education must be attained off the reservation. Students typically attend one or more of the following schools: Tuba City Head Start, Coppermine Pre-School, Lake View Elementary School, Desert View Elementary, Page Middle School, Page High School, Greyhill High School, Kaibeto Boarding School, Richfield Dormitory, Northern Arizona University, or Ft. Lewis College.

3.10.3.5 Kaibeto

The Kaibeto Chapter has three schools: the Kaibeto Head Start, a kindergarten through 8th grade school, and a high school. The kindergarten through 8th grade school and the high school are part of the Kaibeto Boarding School.

According to Chapter estimates from 2003, 22 students attend the Kaibeto Head Start, and 352 students attend the Kaibeto Boarding School. Chapter students also attend Page Elementary, Page Middle School, Page High School, Tuba City High School, and Greyhills High School Academy.

3.10.3.6 Leupp

The Chapter has several types of educational institutions available for students. Students may attend a public or a BIA 638 school system. The following table **Error! Reference source not found.** of the Chapter's educational facilities was compiled in 2005.

Facility	Type of Bldg.	Bldg. Age	Current Enrollment	Capacity	Land Status	Area Served
Leupp Headstart I-II Ages 3-5	Stucco	39	35 Students	40	Tribally Withdrawn	Leupp, Birdsprings
Leupp Elementary School (FUSD) Grades PreK-8	Brick	1 yr.	233 Students	NA	Tribally Withdrawn	Leupp, Birdsprings, Tolani Lake
Leupp School, Inc. Grades K-12 (638 contract)	Cinder Block	45 yrs.	310 Students	400	Tribally Withdrawn	Leupp, Birdsprings, Tolani Lake Winslow Flagstaff
Leupp School, Inc. Dormitory (638 contract)	Cinder Block	45 yrs.	39 Boys 28 Girls Resident/ Students	100 Boys 100 Girls	Tribally Withdrawn Tolani Lake	Leupp, Birdsprings,

Source: *Leupp Community Land-Use Plan, 2005*

3.10.3.7 Tolani Lake

The Chapter has a preschool and Tolani Lake Elementary School Academy – a day school with approximately 50 students as of 2003. Most students attend Leupp School, Inc. and Leupp Public School.

3.10.3.8 Tonalea

The Chapter has two preschool facilities, one in the community of Tonalea and one in Cowsprings, and Tonalea Day School – a K-8 grade school.

Total student enrollment as of Fall of 2003:

Tonalea Headstart I/II	30
Cowsprings Headstart	15
Tonalea Headstart Homebase	20
Tonalea School	280

3.10.3.9 Tuba City

The Chapter has three educational institutions. Students have the option of attending Tuba City Public Schools, Tuba City Boarding School, and Greyhills Academy High School – a BIA boarding school. Some students also take online classes from Northern Arizona University.

Total student enrollment as of Fall of 2003:

Tuba City Boarding School	1037
Tuba City Primary School	259
Eagles Nest Intermediate School	415
Tuba City Junior High School	566
Tuba City High School	1000
Greyhills Academy High School	488
Diné College - Tuba City Campus	300

EDUCATIONAL FACILITIES

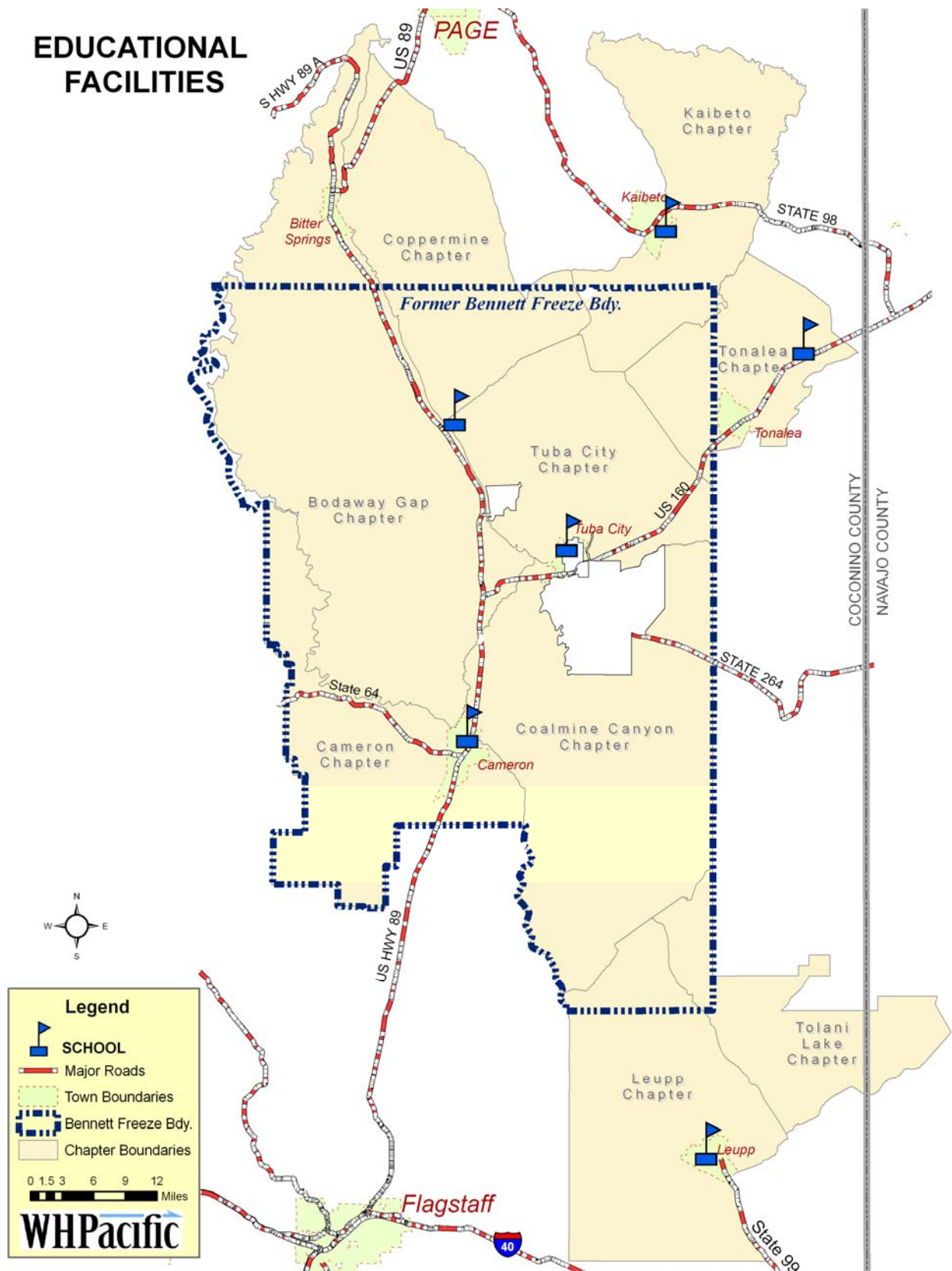


Figure 31: Educational Facilities in the FBFA

4.0 Recommended Priority Projects

The primary purpose of the FBFA Recovery Plan effort was to determine what is needed to restore the health, vitality, and viability of the communities in the nine impacted chapters. This includes not only the capital projects needed but also the resources and actions needed to breathe life into the vision of recovery.

In the capacity of assessment tool, the planning effort includes a first-order feasibility of the projects proposed to meet the needs of FBFA residents and other members of the nine chapters. This assessment included comparison and condition information gathered from the field; data, stories, and ongoing planning efforts expressed at community workshops; plans and data gathered from relevant departments and agencies; professional judgment and expertise; current and past Community Land-Use Plans; and other research.

In addition to determining needs for projects, the planning team also looked for signs of progress toward project-readiness. Those projects with land withdrawn, some planning completed, or design started can be prioritized for funding in order to see results on the ground and begin to show success. It is not enough to ask community members to hope for change; it must be cultivated through identifying projects that need more thought or planning and fast-tracking those that are ready to take shape.

For those projects with enough information to determine a general sense of the scope, cost estimates were produced to include the total project cost:

- Feasibility Study
- Architectural/Engineering and other professional fees
- Construction
- Fixtures, furnishings and equipment (F, F, & E)
- Administration funds for the agency managing the projects
- An adjustment for inflation to the year of construction

Those projects that did not include enough information to generate a cost estimate were handled in one of three ways: (1) Funds were provided for a feasibility study to determine the project scope, location, and cost, (2) Similar projects were combined into larger regional studies to be looked at comprehensively, such as environmental and cultural resources, or (3) The project was noted in the capital projects list but not allocated funds until more information can be provided.

The following sections include the descriptions and costs for each of the capital projects by category. In addition, the sections generally describe the method by which the most common projects were assessed and estimated.

This plan recommends that many projects and funds identified for more than one chapter can be combined as feasible and beneficial, particularly for large-scale, comprehensive studies and regional facilities, such as economic development, K-12 schools, casinos, rodeo grounds, or livestock yards.

4.1 Housing

Housing was identified by many as the number one priority for area residents. Having been personally affected by the prohibition against any construction or rehabilitation without the express consent of the Hopi Tribe, which in many cases was not granted, the need for new and renovated housing has steadily increased in the more than forty years of the freeze.

Providing a wide range of housing options, locations, designs, and amenities is the key to responding to the variety of housing needs for FBFA residents. Not only is there a wide range of family sizes and family arrangements to serve, there is also a wide range of ages, cultural preferences, and expectations about amenities.

Many of the elderly generation and more traditional residents prefer scattered-site homes in remote areas, with plenty of space between neighbors – often spaced a mile or more apart. The amenity expectation for these homes is mostly focused on solar panels with wind-powered backup generators for electricity and access to a reasonably close-by watering point where residents can haul water for drinking, household use, and livestock. Residents need to be confident that the water is high-quality and safe for drinking and domestic and livestock use, and service agencies, such as IHS and NTUA, need to be confident that the watering point is safe, protected, managed, maintained, and monitored daily by the local chapter or other responsible tribal entity.

There are a variety of policy, procedures, and governance challenges to meeting the need for housing in the FBFA. These procedural and governance issues must be addressed and resolved by the appropriate agencies and government entities as quickly as possible in order to assure the efficient use of funds and implementation of projects that meet the urgent need for housing many current and future residents face. These issues are summarized in **Section 5.6.1**.

Important to many residents in these nine chapters is the idea of sustainability – including the sense of a wise use of resources and also of developing communities that are as self-sufficient over the long term as possible. In order to respect this value, it will be important to incorporate energy-efficiency, context-sensitive design, and local resource use at all levels – from the selection of housing sites to the orientation of each home for solar gain to the addition of water harvesting barrels to capture rain from each roof.

4.1.1 Needs Assessment

Field teams traveled to each of the FBFA chapters to visit, assess, and document residential buildings in the nine Chapters. Judging from the exterior appearance of homes, the conditions of these residences were rated from very poor to very good. As much as possible, field teams noted the presence or absence of power, water, wastewater treatment, telephone service, natural gas, and access. The location of each home visited was recorded through a Global Positioning

Satellite (GPS) system, and the house's size in square feet and approximate age were estimated. When available, residents were asked a series of questions about ownership and water hauling practices.

While this information may be used in later assessment and improvement efforts on an individual basis, the main emphasis of this study was to determine a regional sense of housing conditions, particularly the condition of those in the FBFA versus those in the Chapter but outside the boundary. In order to study this, a statistical analysis was conducted based on the field team data and compared to the U.S. Census and a recent Water Resources study.

4.1.1.1 Single Family Residences

The field teams visited 4,379 single family residences. Of those visited, 1,406 were located in the FBFA. Forty-two percent of all residences met an established standard for a habitable dwelling; however, only 23 percent of homes in the FBFA met the standard for habitable dwellings.

For this study, the standard required that a structure must be rated very good, good, or fair based on the field team's assessment of the exterior. The field team criteria can be found in **Appendix 7.1**. If the residence was only rated fair, additional criteria were added to ensure habitable conditions. In these cases, the dwelling must have public water, septic or public sewer, and be less than 25 years old. This standard is similar to one used by the U.S. Census.

Based on this standard, only 1,838 dwellings (324 in the FBFA) were estimated to be habitable and worth repairing. In comparison, the 2000 U.S. Census estimated this number at 1,965, which supports the results of this analysis.

In order to estimate the demand for housing, historic population trends and future population projections were used. Contrary to the observations of many residents, the nine FBFA chapters have shown steady growth in population since the imposition of the Bennett Freeze. There was no statistical evidence of a significant out-migration. While anecdotal evidence supports the idea that many families moved away because of the freeze, Census data show that they were replaced by others and then some.

Absent the statistical evidence to project potential in-migration, population projections based upon traditional birth and death analysis were used. Projections were calculated for each Chapter to the year 2020. According to the 2000 U.S. Census, the average number of people per household for the Navajo Nation as a whole is 3.77 and 3.99 for the nine chapters. Using the Navajo Nation average of 3.77, the

2020 housing demand for the nine Chapters is 6995 homes (2001 in the FBFA).

No data exists that divides Chapter population inside and outside the FBFA; however, the field survey recorded the number of occupied households and their exact location using GPS technology. While not every home may have been visited by a field team, and some houses may have been inaccurately classified as either occupied or unoccupied, a large enough sample was gathered to be able to produce a statistically meaningful ratio of residents inside and outside the FBFA.

Using the field team data, the analysis applied the ratio of population per household to the number of occupied homes inside and outside the FBFA boundary. This calculation produced an estimate of the percentage of population and homes in and out of the FBFA within each Chapter. These percentages were used to calculate how many homes inside and outside the FBFA boundary would be needed to meet the housing demand by 2020, in each of the housing categories described below.

Using additional statistical information from the field surveys, the 2000 US Census, and other documents, the following assumptions were developed to complete the housing analysis.

- It was estimated that 70 percent of the existing homes are scattered and that this percentage has remained relatively constant for the last few decades. It was therefore assumed that 70 percent of new homes would be scattered. The cost estimate for scattered homes contains additional funds to provide water, power, and access.
- The 1,838 homes that meet the standard for being habitable will require a repair and replacement program. A cost estimate is included to fund this program.
- Many existing scattered houses will require water, wastewater treatment, power, and road access. A cost estimate has been developed that represents an average amount per house to provide these essential elements.
- Each cost estimate includes an allowance for the fixtures, furnishings, and equipment necessary to make the structure habitable.

The present and future housing inventory has been divided into the categories listed below:

- New Cluster Housing Outside the FBFA
- New Cluster Housing Inside the FBFA
- New Scattered Housing Outside the FBFA

- New Scattered Housing Inside the FBFA
- Repair and Replace Housing Outside the FBFA
- Repair and Replace Housing Inside the FBFA
- Power, Water and Access to Existing Scattered Housing Outside the FBFA
- Power, Water and Access to Existing Scattered Housing Inside the FBFA

It should be emphasized that this is a statistical analysis based upon a brief physical examination of each existing home. Individual homes were not identified for repair or replacement. The purpose of this study is limited to estimating the cost to repair the existing and construct the new houses necessary to meet the future demand. Once funding is obtained, the next step will need to build on the survey data from this planning effort and begin the process of identifying the individual homes and specific actions to make them habitable.

4.1.1.2 Multifamily Residences

The field survey revealed that very few traditional multifamily buildings exist in the nine Chapters. A significant number of duplexes are located in Tuba City, but otherwise multifamily dwellings appear to be clusters of detached residences available for rent. This discovery confirms an important deficiency in the housing inventory of the area. This deficiency was often identified by workshop participants as a lack of housing for teachers and health professionals. The 2000 U.S. Census estimates that approximately four percent of the housing stock in the Navajo Nation is multifamily. The nine chapters are well below that ratio, and 90 percent of the existing stock was rated just fair or worse. For multifamily housing, the following assumptions were made to generate the recommended projects and cost estimates:

- The number of multifamily units in the nine Chapters should equal the four percent of all housing that exists in the Navajo Nation as a whole.
- This housing could be either duplexes, triplexes, apartments, or townhouses, but the average size would generally be equal that of a single family residence, which is assumed to be 1,200 sq. ft. for all the categories described above.

4.1.1.3 Group Residential

Each Chapter requested emergency, temporary housing for individuals in distress. The requests included space for a woman's shelter, temporary housing for students, a halfway house, or independent living for other individuals with special needs. While the need is very clear,

the amount of space and its configuration is difficult to estimate absent specific information on the number of potential residents and their reason for needing temporary housing. It is also clear that in a small community, the reasons driving the need can change. One week the facility may shelter a woman in need and the next a student.

Despite these uncertainties, any facility would be preferable to none. The following assumptions were made to estimate the size of a reasonable group residence:

- Experience suggests that it is unlikely that more than four to six people at a time would be housed in small chapter, eight to twelve in a medium chapter or thirty-two in the large chapter. Using this general guide, the estimated size of the facilities needed for the small chapters is 2,000 square feet; the medium 4,000; and the large 16,000.
- This space could be in one building or several. It could be part of another facility or it could simply be a detached or multifamily residence used for this purpose.

4.1.1.4 Elder Living Center

The Elder Living Center provides both living quarters and day care for the elderly. The resident rooms would be equipped with showers and toilets. Most rooms would be for individual occupancy, with some big enough for double occupancy. The core of the facility houses the activity rooms – a dining room and lounges for residents and day care users. An on-site kitchen serves meals to the users. There are offices for administrator and visiting medical personnel, and a nurse's station will be centrally located.

- In the small chapters, 15 resident rooms can be constructed for the budget recommended. The medium chapters would have a center with 45 resident rooms, and the large Chapter, 150 rooms.
- The facility is intended to be used as an independent and assisted living and daycare center. It is not intended for users needing intensive physical or mental medical attention such as patients suffering from Alzheimer's.
- In some cases the Chapters requested a Senior Center. A Senior Center cannot provide the services anticipated by an Elder Living Center; however, the Elder Living Center day care and the food service can provide the services provided by a Senior Center. This will be a decision for the community during the feasibility study. For this report, a Senior Center is generally included in the space for a Community or Multipurpose Center.

4.1.2 Infrastructure & Capital Improvement Projects

Chapter	Housing Project	FBFA (%)	Project Description	Project Readiness
Bodaway-Gap	New Cluster Residential	100	96 houses @ 1,200 sq. ft. each	Feasibility Study, multiple sites withdrawn, Land Suitability Study done, Bitter Springs site identified
Bodaway-Gap	New Cluster Residential	0	17 houses @ 1,200 sq. ft. each	Needs Feasibility Study
Cameron	New Cluster Residential	100	135 houses @ 1,200 sq. ft. each	Feasibility Study, Site identified, Land Suitability Study done, Not withdrawn
Coalmine Canyon	New Cluster Residential	100	55 houses @ 1,200 sq. ft. each	Feasibility Study, Site Identified, design is done for the fencing
Coalmine Canyon	New Cluster Residential	0	3 houses @ 1,200 sq. ft. each	Feasibility Study, 414 acre Site Identified, design is done for the fencing
Coppermine	New Cluster Residential	100	32 houses @ 1,200 sq. ft. each	Feasibility Study, Site identified, Land Suitability Study done, Not withdrawn
Coppermine	New Cluster Residential	0	40 houses @ 1,200 sq. ft. each	Feasibility Study, Site identified, Land Suitability Study done, Not withdrawn
Kaibeto	New Cluster Residential	100	30 houses @ 1,200 sq. ft. each	Feasibility Study needed, 200+ acres withdrawn around community for community, commercial, industrial uses
Kaibeto	New Cluster Residential	0	79 houses @ 1,200 sq. ft. each	Feasibility Study needed, 200+ acres withdrawn around community for community, commercial, industrial uses
Leupp	New Cluster Residential	100	10 houses @ 1,200 sq. ft. each	Needs Feasibility Study
Leupp	New Cluster Residential	0	127 houses @ 1,200 sq. ft. each	Needs Feasibility Study
Tolani Lake	New Cluster Residential	100	10 houses @ 1,200 sq. ft. each	Feasibility Study, Site identified, Land Suitability Study done, 12 acre site withdrawn
Tolani Lake	New Cluster Residential	0	22 houses @ 1,200 sq. ft. each	Feasibility Study, Site identified, Land Suitability Study done, 12 acre site withdrawn
Tonalea	New Cluster Residential	100	44 houses @ 1,200 sq. ft. each	Needs Feasibility Study
Tonalea	New Cluster Residential	0	103 houses @ 1,200 sq. ft. each	Needs Feasibility Study
Tuba City	New Cluster Residential	100	90 houses @ 1,200 sq. ft. each	Feasibility Study, 3 sites selected - 247 acres, Land Suitability Study done
Tuba City	New Cluster Residential	0	653 houses @ 1,200 sq. ft. each	Feasibility Study, 3 sites selected - 247 acres, Land Suitability Study done
Bodaway-Gap	New Elder Living	85	New Elder Living	Needs Feasibility Study
Cameron	New Elder Living	100	New facility	Needs Feasibility Study

Chapter	Housing Project	FBFA (%)	Project Description	Project Readiness
Coalmine Canyon	New Elder Living	95	Independent Living, Nursing,	Planning & Design Done, site identified but not withdrawn / 20 elder units planned and designed
Coppermine	New Elder Living	45	Disabled, Nursing, Elder Living	Needs Feasibility Study
Kaibeto	New Elder Living	28	New Elder Living	Feasibility Study needed, 200+ acres withdrawn around community for community, commercial, industrial uses
Leupp	New Elder Living	7	New Elder Living, Senior Center	Needs Feasibility Study
Tolani Lake	New Elder Living	31	Nursing, Convalescence, Elder	Needs Feasibility Study
Tonalea	New Elder Living	30	Nursing, Elder	Needs Feasibility Study
Tuba City	New Elder Living	12	Nursing	Feasibility Study
Bodaway-Gap	New Group Residential	85	Women's Shelter, Special Needs	Needs Feasibility Study
Cameron	New Group Residential	100	Women's Shelter, Special Needs	Needs Feasibility Study
Coalmine Canyon	New Group Residential	95	Special Needs, Transitional Students	Needs Feasibility Study
Coppermine	New Group Residential	45	Women's Shelter	Needs Feasibility Study
Kaibeto	New Group Residential	28	New facility	Feasibility Study needed, 200+ acres withdrawn around community for community, commercial, industrial uses
Leupp	New Group Residential	7	New facility	Needs Feasibility Study
Tolani Lake	New Group Residential	31	Emergency Shelter	Needs Feasibility Study
Tonalea	New Group Residential	30	Veteran's, Women's Shelter	Needs Feasibility Study
Tuba City	New Group Residential	12	Woman's Shelter, Student Housing, Detox Center	Needs Feasibility Study
Bodaway-Gap	New Multifamily	100	10 units @ 1,200 sq. ft each.	Needs Feasibility Study
Bodaway-Gap	New Multifamily	0	2 units @ 1,200 sq. ft each.	Needs Feasibility Study
Cameron	New Multifamily	100	13 units @ 1,200 sq. ft each.	Needs Feasibility Study
Coalmine Canyon	New Multifamily	100	5 units @ 1,200 sq. ft each.	Needs Feasibility Study

Chapter	Housing Project	FBFA (%)	Project Description	Project Readiness
Coppermine	New Multifamily	100	4 units @ 1,200 sq. ft each.	Needs Feasibility Study
Coppermine	New Multifamily	0	4 units @ 1,200 sq. ft each.	Needs Feasibility Study
Kaibeto	New Multifamily	100	3 units @ 1,200 sq. ft each.	Needs Feasibility Study
Kaibeto	New Multifamily	0	9 units @ 1,200 sq. ft each.	Needs Feasibility Study
Leupp	New Multifamily	100	1 unit @ 1,200 sq. ft.	Needs Feasibility Study
Leupp	New Multifamily	0	15 units. @ 1,200 sq. ft each.	Needs Feasibility Study
Tolani Lake	New Multifamily	100	1 unit @ 1,200 sq. ft each.	Needs Feasibility Study
Tolani Lake	New Multifamily	0	3 units @ 1,200 sq. ft each.	Needs Feasibility Study
Tonalea	New Multifamily	100	5 units @ 1,200 sq. ft each.	Needs Feasibility Study
Tonalea	New Multifamily	0	12 units @ 1,200 sq. ft each.	Needs Feasibility Study
Tuba City	New Multifamily	100	11 units @ 1,200 sq. ft each.	Needs Feasibility Study
Tuba City	New Multifamily	0	76 units @ 1,200 sq. ft each.	Needs Feasibility Study
Bodaway-Gap	New Scattered Residential	100	225 houses @ 1,200 sq. ft. each	Needs Feasibility Study
Bodaway-Gap	New Scattered Residential	0	39 houses @ 1,200 sq. ft. each	Needs Feasibility Study
Cameron	New Scattered Residential	100	315 houses @ 1,200 sq. ft. each	Needs Feasibility Study
Coalmine Canyon	New Scattered Residential	100	128 houses, 200 scattered homes are anticipated including relocated children	Needs Feasibility Study
Coalmine Canyon	New Scattered Residential	0	7 houses @ 1,200 sq. ft. each	Needs Feasibility Study
Coppermine	New Scattered Residential	100	76 houses @ 1,200 sq. ft. each	Needs Feasibility Study
Coppermine	New Scattered Residential	0	94 houses @ 1,200 sq. ft. each	Needs Feasibility Study
Kaibeto	New Scattered Residential	100	71 houses @ 1,200 sq. ft. each	Feasibility Study needed, 200+ acres withdrawn around community for community, commercial, industrial uses

Chapter	Housing Project	FBFA (%)	Project Description	Project Readiness
Kaibeto	New Scattered Residential	0	183 houses @ 1,200 sq. ft. each	Feasibility Study needed, 200+ acres withdrawn around community for community, commercial, industrial uses
Leupp	New Scattered Residential	100	23 houses @ 1,200 sq. ft. each	Needs Feasibility Study
Leupp	New Scattered Residential	0	296 houses @ 1,200 sq. ft. each	Needs Feasibility Study
Tolani Lake	New Scattered Residential	100	23 houses @ 1,200 sq. ft. each	Needs Feasibility Study
Tolani Lake	New Scattered Residential	0	52 houses @ 1,200 sq. ft. each	Needs Feasibility Study
Tonalea	New Scattered Residential	100	103 houses @ 1,200 sq. ft. each	Needs Feasibility Study
Tonalea	New Scattered Residential	0	241 houses @ 1,200 sq. ft. each	Needs Feasibility Study
Tuba City	New Scattered Residential	100	211 houses @ 1,200 sq. ft. each	Needs Feasibility Study
Tuba City	New Scattered Residential	0	1,524 houses @ 1,200 sq. ft. each	Needs Feasibility Study
Bodaway-Gap	Power & Water Upgrades	100	41 existing houses @ 1,200 sq. ft. each	Needs Feasibility Study
Bodaway-Gap	Power & Water Upgrades	0	15 existing houses @ 1,200 sq. ft. each	Needs Feasibility Study
Cameron	Power & Water Upgrades	100	56 existing houses @ 1,200 sq. ft. each	Needs Feasibility Study
Coalmine Canyon	Power & Water Upgrades	100	23 existing houses @ 1,200 sq. ft. each	Planning and design done for solar power for 40 homes and bathroom septic for 35 homes..
Coalmine Canyon	Power & Water Upgrades	0	3 existing houses @ 1,200 sq. ft. each	Planning and design done for solar power for 40 homes and bathroom septic for 35 homes.
Coppermine	Power & Water Upgrades	100	15 existing houses @ 1,200 sq. ft. each	Needs Feasibility Study
Coppermine	Power & Water Upgrades	0	39 existing houses @ 1,200 sq. ft. each	Needs Feasibility Study
Kaibeto	Power & Water Upgrades	100	15 existing houses @ 1,200 sq. ft. each	Feasibility Study, 200+ acres withdrawn around community for community, commercial, industrial uses
Kaibeto	Power & Water Upgrades	0	78 existing houses @ 1,200 sq. ft. each	Feasibility Study, 200+ acres withdrawn around community for community, commercial, industrial uses
Leupp	Power & Water Upgrades	100	5 existing houses @ 1,200 sq. ft. each	Needs Feasibility Study

Chapter	Housing Project	FBFA (%)	Project Description	Project Readiness
Leupp	Power & Water Upgrades	0	132 existing houses @ 1,200 sq. ft. each	Needs Feasibility Study
Tolani Lake	Power & Water Upgrades	100	5 existing houses @ 1,200 sq. ft. each	Needs Feasibility Study
Tolani Lake	Power & Water Upgrades	0	22 existing houses @ 1,200 sq. ft. each	Needs Feasibility Study
Tonalea	Power & Water Upgrades	100	21 existing houses @ 1,200 sq. ft. each	Needs Feasibility Study
Tonalea	Power & Water Upgrades	0	102 existing houses @ 1,200 sq. ft. each	Needs Feasibility Study
Tuba City	Power & Water Upgrades	100	45 existing houses @ 1,200 sq. ft. each	Needs Feasibility Study
Tuba City	Power & Water Upgrades	0	670 existing houses @ 1,200 sq. ft. each	Needs Feasibility Study
Bodaway-Gap	Repair Residential	100	59 existing houses @ 1,200 sq. ft. each	Needs Feasibility Study
Bodaway-Gap	Repair Residential	0	21 existing houses @ 1,200 sq. ft. each	Needs Feasibility Study
Cameron	Repair Residential	100	80 existing houses @ 1,200 sq. ft. each	Needs Feasibility Study
Coalmine Canyon	Repair Residential	100	33 existing houses @ 1,200 sq. ft. each	Needs Feasibility Study
Coalmine Canyon	Repair Residential	0	4 existing houses @ 1,200 sq. ft. each	Needs Feasibility Study
Coppermine	Repair Residential	100	22 existing houses @ 1,200 sq. ft. each	Needs Feasibility Study
Coppermine	Repair Residential	0	55 existing houses @ 1,200 sq. ft. each	Needs Feasibility Study
Kaibeto	Repair Residential	100	21 existing houses @ 1,200 sq. ft. each	Feasibility Study, 200+ acres withdrawn around community for community, commercial, industrial uses
Kaibeto	Repair Residential	0	111 existing houses @ 1,200 sq. ft. each	Feasibility Study needed, 200+ acres withdrawn around community for community, commercial, industrial uses
Leupp	Repair Residential	100	7 existing houses @ 1,200 sq. ft. each	Needs Feasibility Study
Leupp	Repair Residential	0	188 existing houses @ 1,200 sq. ft. each	Needs Feasibility Study
Tolani Lake	Repair Residential	100	7 existing houses @ 1,200 sq. ft. each	Needs Feasibility Study
Tolani Lake	Repair Residential	0	31 existing houses @ 1,200 sq. ft. each	Needs Feasibility Study
Tonalea	Repair Residential	100	30 existing houses @ 1,200 sq. ft. each	Needs Feasibility Study

Chapter	Housing Project	FBFA (%)	Project Description	Project Readiness
Tonalea	Repair Residential	0	146 existing houses @ 1,200 sq. ft. each	Needs Feasibility Study
Tuba City	Repair Residential	100	65 existing houses @ 1,200 sq. ft. each	Needs Feasibility Study
Tuba City	Repair Residential	0	958 existing houses @ 1,200 sq. ft. each	Needs Feasibility Study

Table 4: Housing ICIP Project Descriptions

4.1.3 Cost Estimate Summary

Chapter	Housing Project	FBFA (%)	Start Year	Sq. Ft.	Planning	A/E Cost	Constr Cost	Project Mgmt	F,F&E	TOTAL COST (thousands)
Bodaway-Gap	New Cluster Residential	100	2010	115,200	1503	3007	30067	6,013	902	41,493
Bodaway-Gap	New Cluster Residential	0	2010	20,400	266	532	5324	1,065	160	7,348
Bodaway-Gap	New Elder Living	85	2013	45,000	1095	2190	21900	4,380	657	30,222
Bodaway-Gap	New Group Residential	85	2013	4,000	63	127	1268	254	38	1,750
Bodaway-Gap	New Multifamily	100	2010	12,000	194	389	3888	778	117	5,365
Bodaway-Gap	New Multifamily	0	2010	2,400	39	78	778	156	23	1,073
Bodaway-Gap	New Scattered Residential	100	2010	270,000	4374	8748	87480	17,496	2,624	120,722
Bodaway-Gap	New Scattered Residential	0	2010	46,800	758	1516	15163	3,033	455	20,925
Bodaway-Gap	Power & Water Upgrades	100	2010	49,200	155	310	3100	620	93	4,277
Bodaway-Gap	Power & Water Upgrades	0	2010	18,000	57	113	1134	227	34	1,565
Bodaway-Gap	Repair Residential	100	2010	70,800	354	708	7080	1,416	212	9,770

Chapter	Housing Project	FBFA (%)	Start Year	Sq. Ft.	Planning	A/E Cost	Constr Cost	Project Mgmt	F,F&E	TOTAL COST (thousands)
Bodaway-Gap	Repair Residential	0	2010	25,200	126	252	2520	504	76	3,478
Cameron	New Cluster Residential	100	2010	162,000	2114	4228	42282	8,456	1,268	58,349
Cameron	New Elder Living	100	2012	45,000	1095	2190	21900	4,380	657	30,222
Cameron	New Group Residential	100	2014	4,000	63	127	1268	254	38	1,750
Cameron	New Multifamily	100	2010	12,000	194	389	3888	778	117	5,365
Cameron	New Scattered Residential	100	2010	378,000	6124	12247	122472	24,494	3,674	169,011
Cameron	Power & Water Upgrades	100	2010	67,200	212	423	4234	847	127	5,842
Cameron	Repair Residential	100	2010	96,000	480	960	9600	1,920	288	13,248
Coalmine Canyon	New Cluster Residential	100	2010	66,000	861	1723	17226	3,445	517	23,772
Coalmine Canyon	New Cluster Residential	0	2010	3,600	47	94	940	188	28	1,297
Coalmine Canyon	New Elder Living	95	2010	45,000	1095	2190	21900	4,380	657	30,222
Coalmine Canyon	New Group Residential	95	2016	2,000	32	63	634	127	19	875
Coalmine Canyon	New Multifamily	100	2010	6,000	97	194	1944	389	58	2,683
Coalmine Canyon	New Scattered Residential	100	2010	153,600	2488	4977	49766	9,953	1,493	68,678

Chapter	Housing Project	FBFA (%)	Start Year	Sq. Ft.	Planning	A/E Cost	Constr Cost	Project Mgmt	F,F&E	TOTAL COST (thousands)
Coalmine Canyon	New Scattered Residential	0	2010	8,400	136	272	2722	544	82	3,756
Coalmine Canyon	Power & Water Upgrades	100	2010	27,600	87	174	1739	348	52	2,400
Coalmine Canyon	Power & Water Upgrades	0	2010	3,600	11	23	227	45	7	313
Coalmine Canyon	Repair Residential	100	2010	39,600	198	396	3960	792	119	5,465
Coalmine Canyon	Repair Residential	0	2010	4,800	24	48	480	96	14	662
Coppermine	New Cluster Residential	100	2010	38,400	501	1002	10022	2,004	301	13,831
Coppermine	New Cluster Residential	0	2010	48,000	626	1253	12528	2,506	376	17,289
Coppermine	New Elder Living	45	2012	15,000	365	730	7300	1,460	219	10,074
Coppermine	New Group Residential	45	2010	2,000	32	63	634	127	19	875
Coppermine	New Multifamily	100	2010	4,800	78	156	1555	311	47	2,146
Coppermine	New Multifamily	0	2010	4,800	78	156	1555	311	47	2,146
Coppermine	New Scattered Residential	100	2010	91,200	1477	2955	29549	5,910	886	40,777
Coppermine	New Scattered Residential	0	2010	112,800	1827	3655	36547	7,309	1,096	50,435

Chapter	Housing Project	FBFA (%)	Start Year	Sq. Ft.	Planning	A/E Cost	Constr Cost	Project Mgmt	F,F&E	TOTAL COST (thousands)
Coppermine	Power & Water Upgrades	100	2010	18,000	57	113	1134	227	34	1,565
Coppermine	Power & Water Upgrades	0	2010	46,800	147	295	2948	590	88	4,069
Coppermine	Repair Residential	100	2010	26,400	132	264	2640	528	79	3,643
Coppermine	Repair Residential	0	2010	66,000	330	660	6600	1,320	198	9,108
Kaibeto	New Cluster Residential	100	2010	36,000	470	940	9396	1,879	282	12,966
Kaibeto	New Cluster Residential	0	2010	94,800	1237	2474	24743	4,949	742	34,145
Kaibeto	New Elder Living	28	2012	45,000	1095	2190	21900	4,380	657	30,222
Kaibeto	New Group Residential	28	2012	4,000	63	127	1268	254	38	1,750
Kaibeto	New Multifamily	100	2010	3,600	58	117	1166	233	35	1,610
Kaibeto	New Multifamily	0	2010	10,800	175	350	3499	700	105	4,829
Kaibeto	New Scattered Residential	100	2010	85,200	1380	2760	27605	5,521	828	38,095
Kaibeto	New Scattered Residential	0	2010	219,600	3558	7115	71150	14,230	2,135	98,188
Kaibeto	Power & Water Upgrades	100	2010	18,000	57	113	1134	227	34	1,565

Chapter	Housing Project	FBFA (%)	Start Year	Sq. Ft.	Planning	A/E Cost	Constr Cost	Project Mgmt	F,F&E	TOTAL COST (thousands)
Kaibeto	Power & Water Upgrades	0	2010	93,600	295	590	5897	1,179	177	8,138
Kaibeto	Repair Residential	100	2010	25,200	126	252	2520	504	76	3,478
Kaibeto	Repair Residential	0	2010	133,200	666	1332	13320	2,664	400	18,382
Leupp	New Cluster Residential	100	2010	12,000	157	313	3132	626	94	4,322
Leupp	New Cluster Residential	0	2010	152,400	1989	3978	39776	7,955	1,193	54,891
Leupp	New Elder Living	7	2010	45,000	1095	2190	21900	4,380	657	30,222
Leupp	New Group Residential	7	2010	4,000	63	127	1268	254	38	1,750
Leupp	New Multifamily	100	2010	1,200	19	39	389	78	12	537
Leupp	New Multifamily	0	2010	18,000	292	583	5832	1,166	175	8,048
Leupp	New Scattered Residential	100	2010	27,600	447	894	8942	1,788	268	12,341
Leupp	New Scattered Residential	0	2010	355,200	5754	11508	115085	23,017	3,453	158,817
Leupp	Power & Water Upgrades	100	2010	6,000	19	38	378	76	11	522
Leupp	Power & Water Upgrades	0	2010	158,400	499	998	9979	1,996	299	13,771

Chapter	Housing Project	FBFA (%)	Start Year	Sq. Ft.	Planning	A/E Cost	Constr Cost	Project Mgmt	F,F&E	TOTAL COST (thousands)
Leupp	Repair Residential	100	2010	4,800	24	48	480	96	14	662
Leupp	Repair Residential	0	2010	225,600	1128	2256	22560	4,512	677	31,133
Tolani Lake	New Cluster Residential	100	2010	12,000	157	313	3132	626	94	4,322
Tolani Lake	New Cluster Residential	0	2010	26,400	345	689	6890	1,378	207	9,509
Tolani Lake	New Elder Living	31	2013	15,000	365	730	7300	1,460	219	10,074
Tolani Lake	New Group Residential	31	2010	2,000	32	63	634	127	19	875
Tolani Lake	New Multifamily	100	2010	1,200	19	39	389	78	12	537
Tolani Lake	New Multifamily	0	2010	3,600	58	117	1166	233	35	1,610
Tolani Lake	New Scattered Residential	100	2010	27,600	447	894	8942	1,788	268	12,341
Tolani Lake	New Scattered Residential	0	2010	62,400	1011	2022	20218	4,044	607	27,900
Tolani Lake	Power & Water Upgrades	100	2010	6,000	19	38	378	76	11	522
Tolani Lake	Power & Water Upgrades	0	2010	26,400	83	166	1663	333	50	2,295
Tolani Lake	Repair Residential	100	2010	8,400	42	84	840	168	25	1,159
Tolani Lake	Repair Residential	0	2010	37,200	186	372	3720	744	112	5,134

Chapter	Housing Project	FBFA (%)	Start Year	Sq. Ft.	Planning	A/E Cost	Constr Cost	Project Mgmt	F,F&E	TOTAL COST (thousands)
Tonalea	New Cluster Residential	100	2010	52,800	689	1378	13781	2,756	413	19,018
Tonalea	New Cluster Residential	0	2010	123,600	1613	3226	32260	6,452	968	44,518
Tonalea	New Elder Living	30	2010	45,000	1096	2192	21915	4,383	657	30,243
Tonalea	New Group Residential	30	2010	2,000	32	63	634	127	19	875
Tonalea	New Multifamily	100	2010	6,000	97	194	1944	389	58	2,683
Tonalea	New Multifamily	0	2010	14,400	233	467	4666	933	140	6,439
Tonalea	New Scattered Residential	100	2010	123,600	2002	4005	40046	8,009	1,201	55,264
Tonalea	New Scattered Residential	0	2010	289,200	4685	9370	93701	18,740	2,811	129,307
Tonalea	Power & Water Upgrades	100	2010	25,200	79	159	1588	318	48	2,191
Tonalea	Power & Water Upgrades	0	2010	122,400	386	771	7711	1,542	231	10,641
Tonalea	Repair Residential	100	2010	36,000	180	360	3600	720	108	4,968
Tonalea	Repair Residential	0	2010	175,200	876	1752	17520	3,504	526	24,178
Tuba City	New Cluster Residential	100	2010	108,000	1409	2819	28188	5,638	846	38,899

Chapter	Housing Project	FBFA (%)	Start Year	Sq. Ft.	Planning	A/E Cost	Constr Cost	Project Mgmt	F,F&E	TOTAL COST (thousands)
Tuba City	New Cluster Residential	0	2010	783,600	10226	20452	204520	40,904	6,136	282,237
Tuba City	New Elder Living	12	2010	150,000	3650	7300	73000	14,600	2,190	100,740
Tuba City	New Group Residential	12	2010	16,000	254	507	5072	1,014	152	6,999
Tuba City	New Multifamily	100	2010	13,200	214	428	4277	855	128	5,902
Tuba City	New Multifamily	0	2010	91,200	1477	2955	29549	5,910	886	40,777
Tuba City	New Scattered Residential	100	2010	253,200	4102	8204	82037	16,407	2,461	113,211
Tuba City	New Scattered Residential	0	2010	1,828,800	29627	59253	592531	118,506	17,776	817,693
Tuba City	Power & Water Upgrades	100	2010	54,000	170	340	3402	680	102	4,695
Tuba City	Power & Water Upgrades	0	2010	804,000	2533	5065	50652	10,130	1,520	69,900
Tuba City	Repair Residential	100	2010	78,000	390	780	7800	1,560	234	10,764
Tuba City	Repair Residential	0	2010	1,149,600	5748	11496	114960	22,992	3,449	158,645
Grand Total										3,455,301

Table 5: Housing Project Costs

4.2 Infrastructure and Utilities

After housing, infrastructure and utilities were the most requested capital improvements needed by local residents, area businesses, and various agencies and departments. Chapters, agencies, and departments did their best during the years of the freeze to provide the necessary infrastructure and utilities to keep communities functional and safe. The prohibitions on development and difficulty in obtaining approval for improvements significantly impinged on their ability to do so. Still, some improvements were made in order to serve those residents who chose to stay and try to make their living in the FBFA.

For many residents, this decision meant living for years without electricity, plumbing, or the assurance of clean drinking water. It also meant no access to emergency medical treatment, protection from fires, or nearby retail, commercial, or social services. For 11 percent of residents, it meant driving 20 miles every few days to haul water. Many residents resorted to drinking the same water as their livestock from nearby windmills – water that was untested for water quality and exposed to bacteria from livestock, vandalism, and, in some cases, uranium contamination.

Those who could not live without such necessary services, especially young people and those with young families, had to choose to move away from their chapters of origin, either to the administrative area of Tuba City, to a chapter not impacted by the Bennett Freeze, or off the reservation altogether, often to Flagstaff, Page, or other nearby cities that offered jobs and a higher quality of life.

The absence of a functional system of infrastructure and utilities throughout the FBFA also meant a significant dampening of commercial, retail, industrial, and tourism-related development. Economic development is dependent upon infrastructure to support such activities. The cost of extending water and powerlines and providing wastewater services remains a significant barrier to entry for new businesses. Only those with access to large capital sums are able to afford such improvements before construction and operation of businesses can begin. For the most part, this has meant that only outside businesses and corporations from off the reservation have been able to enter the market in the FBFA. Small business owners and other tribal businesses have faced the challenge of raising significant amounts of capital before their new enterprises can begin.

4.2.1 Needs Assessment

Several sources were used to determine needed infrastructure improvement in the FBFA. In general, field team data about housing conditions and housing type were used to generate estimates for how many homes need repair in or out of the FBFA and how many need power and water upgrades in and out of the FBFA, which is explained in **Section 4.2.1.1** and **4.2.1.2**. For larger-scale water and waste water projects, two sources were used to provide needed projects in the FBFA – IHS active and inactive projects, including water and power service to homes and line extensions, and the

Water Resources Strategic Plan draft document from 2008, with projects identified below in **Section 2.1.1.1**.

4.2.1.1 Water and Wastewater

To the extent possible within the limitations of this study, the cost of providing water and wastewater to the scattered houses has been included in the estimated cost of the New Scattered Houses and the Power, Water and Access to Existing Scattered Housing discussed in the housing section . Historic information and data from other studies suggest that the average cost for providing water and wastewater to a scattered house is between \$20,000 and \$30,000. A similar amount has been included for all the new and existing scattered houses in the nine chapters.

In addition, this study recommends as part of its regional projects full-funding for both the Western Navajo Pipeline and the C-aquifer Leupp to Dilcon Pipeline, which will provide a new or addition water source to approximately 60 percent of the people in the nine Chapters.

4.2.1.2 Power

The field survey indicated that over 40 percent of the residential structures were without electric power. This is considered one of the most critical needs for the nine Chapters. Expansion of the distribution system is the most reliable way of providing power to the underserved area but not the only one. Solar and wind generated power has become a cost effective alternative to overhead power lines in many cases.

- To address this issue it was calculated that a solar, wind and/or fuel generator system sufficient to power a residence, including refrigeration, would cost an estimated \$30,000. This figure was added to the cost of a New Scattered Residence and the cost of repairing an Existing Scattered Residence.
- It was assumed that if the cost for overhead power lines is in excess of that amount, then the alternative would be installed.

4.2.1.3 Communications

Telephone and cell phone service in the area of the FBFRA is unreliable and spotty, which negatively impacts the safety and quality of life of residents. A study should be done to identify the underserved areas, devise a solution,

estimate the cost, recommend a solution, and prepare an implementation plan for consideration.

The Navajo Telecommunications Regulatory Commission has GIS information of cell tower locations and service areas. The project team was unable to access this information, but it exists and should lead quickly to fast-track capital projects to be added to the regional recovery ICIP list.

4.2.2 Infrastructure & Capital Improvement Projects

Chapter	Infrastr. / Utility Project	Project Description	FBFA (%)	Start Year	Project Readiness
Bodaway-Gap	Active and inactive water and wastewater projects	134 homes (I.H.S. Project NA94772, 94845, 98308, 01N53, 06D33, 06Q41, 06Q41, 06D33)		2010	
Bodaway-Gap	Unfunded water, wastewater projects	401 homes (I.H.S. Project AZ03103-0201, 03103-0202, 03103-0301, 03103-0302, 03103-0601)		2010	
Cameron	Active and inactive water and Wastewater projects	88 homes (I.H.S. Project NA94844, 97M17, 98860, 03P13, 05P91)		2010	
Cameron	Unfunded water, wastewater projects	309 homes (I.H.S. Project AZ03104-0301, 03104-0801, 03104-0901, 03104-1201, 03104-1202, 03104-1301, 03104-1302)		2010	
Cameron	Unfunded water, wastewater projects	58 homes (I.H.S. Project AZ03118-0201, 03118-0202)		2010	
Coalmine Canyon	Active and inactive water and Wastewater projects	108 homes I.H.S. Project NA95A29, 01N48, 06Q22)		2010	
Coalmine Canyon	Unfunded water, wastewater projects	263 homes (I.H.S. Project AZ03107-0101, 03107-0301)		2010	
Kaibeto	Active and inactive water and Wastewater projects	58 homes (I.H.S. Project NA00N24, 00N26)		2010	

Chapter	Infrastr. / Utility Project	Project Description	FBFA (%)	Start Year	Project Readiness
Kaibeto	Active and inactive water and Wastewater projects	86 homes (I.H.S. Project NA00M79, 00B48, 00B03, 00P06, 02B83)		2010	
	Unfunded water, wastewater projects	185 homes ((I.H.S. Project AZ03121-0302, 03121-0303, 03121-0A01))		2010	
Kaibeto	Unfunded water, wastewater projects	36 homes		2016	
Regional	Solid Waste / Recycling Study	Landfills, transfer stations, recycling		2010	Needs Feasibility Study
Regional	Telephone, cell towers, internet	Telephone, cell towers, internet		2010	Needs Feasibility Study
Regional B, CM, C	Western Navajo Pipeline	It is estimated that 3 percent of the population served by this project will be in the FBFRA	22	2011	
	Pipeline - C-aquifer Leupp to Dilcon	Navajo Nation Draft Water Resources Development Strategy - ~22 % of the pop. served by this project in FBFA	3	2011	
Tonalea	Active and inactive water and Wastewater projects	18 homes (I.H.S. Project NA05P901)		2010	
Tonalea	Unfunded water, wastewater projects	476 homes (I.H.S. Project AZ03135-0301, 03135-0501, 03135-0601, 03135-0901, 03135-1001, 03135-1002, 03135-1201, 03135-1302, 03135-1501, 03135-2001, 03135-2101)		2010	
	Active and inactive water and Wastewater projects	137 homes (I.H.S. Project NA94799, 95L16, 99B19, 00N10)		2010	
Tuba City	Unfunded water, wastewater projects	1372 homes (I.H.S. Project AZ03130-0201)		2010	

Chapter	Infrastr. / Utility Project	Project Description	FBFA (%)	Start Year	Project Readiness
Regional	Communications Study	Study to determine location, cost of cell towers and improvements		2010	Needs Feasibility Study

Table 6: Infrastructure & Utilities ICIP Project Descriptions

4.2.3 Cost Estimate Summary

Chapter	Infrast. / Utility Project	Start Year	Planning Pre Design Cost	A/E Cost	Constr. Cost	Project Mgmt	F,F&E	TOTAL COST (thousands)
Coalmine Canyon	Active and inactive water and Wastewater projects - 108 homes	2010		99	989	198	0	1,286
Bodaway- Gap	Active and inactive water and wastewater projects - 134 homes	2010		318	3178	636	0	4,131
Tuba City	Active and inactive water and Wastewater projects - 137 homes	2010		214	2141	428	0	2,783
Tonalea	Active and inactive water and Wastewater projects - 18 homes	2010		31	306	61	0	398
Kaibeto	Active and inactive water and Wastewater projects - 58 homes	2010		137	1370	274	0	1,781
Kaibeto	Active and inactive water and Wastewater projects - 86 homes	2010		251	2513	503	0	3,267
Cameron	Active and inactive water and Wastewater projects -- 88 homes	2010		226	2256	451	0	2,933

Chapter	Infrast. / Utility Project	Start Year	Planning Pre Design Cost	A/E Cost	Constr. Cost	Project Mgmt	F,F&E	TOTAL COST (thousands)
Regional	Solid Waste / Recycling Study	2010	200	0	0	0	0	200
Regional	Telephone, cell towers, internet	2010	200	0	0	0	0	200
Tonalea	Unfunded water, wastewater projects	2010		481	4811	962	0	6,254
Tuba City	Unfunded water, wastewater projects - 1,372 homes	2010		25	254	51	0	330
Kaibeto	Unfunded water, wastewater projects - 185 homes	2010		156	1559	312	0	2,027
Coalmine Canyon	Unfunded water, wastewater projects - 263 homes	2010		41	406	81	0	528
Cameron	Unfunded water, wastewater projects -- 309 homes	2010		322	3224	645	0	4,191
Bodaway- Gap	Unfunded water, wastewater projects - 401 Homes	2010		231	2306	461	0	2,998
Cameron	Unfunded water, wastewater projects - 58 homes	2010		228	2279	456	0	2,963
Regional L, TL	Pipeline - C- aquifer Leupp to Dilcon	2011		7250	72500	14,500	0	94,250
Regional B, CM, C	Western Navajo Pipeline	2011		26000	260000	52,000	0	338,000

Chapter	Infrast. / Utility Project	Start Year	Planning Pre Design Cost	A/E Cost	Constr. Cost	Project Mgmt	F,F&E	TOTAL COST (thousands)
Kaibeto	Unfunded water, wastewater projects - 36 homes	2016		113	1132	226	0	1,472
Grand Total								470,191

Table 7: Infrastructure & Utilities Project Costs

4.3 Transportation

Transportation provides the backbone as the means by which residents and visitors travel to communities, services, recreation, jobs, shopping, and all other life activities. Especially in rural areas, transportation becomes one of the most important factors in a high quality of life or a poor one. As residents spend a considerable portion of their days traveling to work, neighboring communities, or other opportunities, a good system of roads can bring these needs within easy reach or lengthen the trips and stress of travel. As tourists can only reach these communities by State and U.S. highways, their condition either encourages visitors or keeps them away. Roads can also be the difference between life-saving emergency response or fatal delays.

At the same time, roads place a severe burden on the environment and habitats of plants and animals and increase the incidence of dumping, vandalism, and poaching by bringing remote areas into easier reach. A system of roads should be planned to minimize the number of roads and their impact while maximizing the benefit and utility to residents and visitors.

4.3.1 Needs Assessment

Transportation improvement was evaluated and assessed for feasible capital projects in several ways, based on roads or transit.

4.3.1.1 Roads

The field survey conducted for this survey was not intended to provide a comprehensive evaluation of the roads in the nine chapters; however, those roads traveled in route to an inspection of a building were documented and rated by the field teams. Many Chapter workshop participants requested specific road repairs and new roads.

The Navajo Nation Department of Transportation developed a 2003 Long Range Comprehensive Transportation Plan, which along with the Status Report from the Western Navajo Agency Roads Committee, sets out the priorities for road construction in this area. Given the limited scope and time for this study, it was deemed appropriate to endorse include the recommendation of the Navajo

DOT and the Roads Committee in this document. The data collected and the specific suggestions for improving the road system will be provided to these agencies for their future consideration.

4.3.1.2 Transit

Several Chapters identified transportation as an immediate need. This includes scheduled transport as well as in an emergency. The scheduled trips would include shopping, medical appointments and visiting. While the need is real and immediate, there is no evidence that a schedule transit system would be viable. It is recommended a shuttle van be purchased for each Chapter to deal with the immediate needs and a more comprehensive solution be sought through a feasibility study.

4.3.2 Infrastructure & Capital Improvement Projects

Chapter	Transp. Project	Descriptions	FBFA (%)	Dist.	Project Readiness
Leupp	Airstrip		7	N / A	
Regional	Route N101	5.2 mile Chip Seal, Tuba City Streets / Tribal Transportation Improvement Program	In	5.2 miles	
Regional	Route N101, Project No. N101(8)2&4	1 mile rehab - Main Street, Tuba City / Tribal Transportation Improvement Program	In	1 mile	
Regional	Route N101, Project No. N101(9)2&4	1 mile road - Main Street to N608, Tuba City / Tribal Transportation Improvement Program	In	1 mile	
Regional	Route N101, Project No. N101(9)2&4	1.5 mile road - Main Street Extension to N608, Birch & Fir, Tuba City / Tribal Transportation Improvement Program	In	1 mile	
Regional	Route N20, Project No. N20(3)2,4	9.3 mile road - Gap to Coppermine / Tribal Transportation Improvement Program	In	9.3 miles	Navajo DOT is performing surveys and preliminary design on this project.

Chapter	Transp. Project	Descriptions	FBFA (%)	Dist.	Project Readiness
Regional	Route N20, Project No. N20(3)2,5	9.3 mile road - Gap to Coppermine / Tribal Transportation Improvement Program	In	9.3 miles	Phase 1
Regional	Route N20, Project No. N20(3)2,6	9.3 mile road - Gap to Coppermine / Tribal Transportation Improvement Program	In	9.3 miles	Phase 2
Regional	Route N20, Project No. N20(3)2,6	9.3 mile road - Gap to Coppermine / Tribal Transportation Improvement Program	In	9.3 miles	Phase 3
Regional	Route N609 Project No. N609(2)2,4	1.2 mile road - Kerley Street, Tuba City / Tribal Transportation Improvement Program	In	1.2 miles	Preliminary surveying is being scheduled by WNA DOT
Regional	Route N609/ N614 Project No. N609(1-1) 2,4	1.43 mile rehab, Kerley Street & Navajo Blvd / Tribal Transportation Improvement Program	In	1.43 miles	Preliminary surveying is being scheduled by WNA DOT
Regional	Route N619, Project No. N619(1)2,4	2 mile road - Colorado Street, Tuba City / Tribal Transportation Improvement Program	In	2 miles	Preliminary surveying is being scheduled by WNA DOT
Regional	Route N6331/N6330, Project No. N6731 (1)1,2,3	2 mile bridge and road, Gun Club Road Bridge N307 Tribal Transportation Improvement Program	In	2 miles	Bridge design is complete
Regional	Study	Identify Needed Traffic Control and Safety Improvements Study			
Regional	Study	Unpaved Road Inventory - Map, evaluate and develop a road upgrade plan			
Regional	Study	Paved Road Inventory - Map, evaluate and develop a road upgrade plan			
Regional	Vans	Regional Shuttle Vans - 9 communities			

Table 8: Transportation ICIP Project Descriptions

4.3.3 Cost Estimate Summary

Chapter	Transp. Project	Start Year	Dist.	Planning Pre Design Cost	A/E Cost	Constr. Cost	Project Mgmt	F,F&E	TOTAL COST (thousands)
Regional	Route N609 Project No. N609(2)2,4	2010	1.2 miles		226	2260	452	0	2,938
Regional	Route N6331/N6330, Project No. N6731 (1)1,2,3	2010	2 miles		240	2400	480	0	3,120
Regional	Route N619, Project No. N619(1)2,4	2010	2 miles		396	3960	792	0	5,148
Regional	Route N101, Project No. N101(8)2&4	2010	1 mile	60	120	1200	240	0	1,620
Regional	Route N101, Project No. N101(9)2&4	2010	1 mile	60	120	1200	240	0	1,620
Regional	Route N20, Project No. N20(3)2,4	2010	9.3 miles	0	0		0	0	0
Regional	Shuttle Vans	2010				400	80	0	480
Regional	Traffic Safety Improvmts Study	2010		500	0		0	0	500
Regional	Unpaved Road Study	2010		300	0		0	0	300
Regional	Paved Road Study	2010		300	0		0	0	300
Regional	Route N20, Project No. N20(3)2,5	2011	9.3 miles	765	0	15290	3,058	0	19,113

Chapter	Transp. Project	Start Year	Dist.	Planning Pre Design Cost	A/E Cost	Constr. Cost	Project Mgmt	F,F&E	TOTAL COST (thousands)
Regional	Route N101, Project No. N101(9)2&4	2014	1 mile	175	350	3500	700	0	4,725
Regional	Route N20, Project No. N20(3)2,6	2015	9.3 miles	892	0	17840	3,568	0	22,300
Leupp	Airstrip	2016	N/A	50	0		0	0	50
Regional	Route N20, Project No. N20(3)2,6	2017	9.3 miles	892	0	17840	3,568	0	22,300
Regional	Route N609/N614 Project No. N609(1-1)2,4	2024	1.43 miles	0	226	2260	452	0	2,938
Regional	Route N101	2024	5.2 miles	26	52	520	104	0	702
Grand Total									88,154

Table 9: Transportation Project Costs

4.4 Health and Public Safety

4.4.1 Needs Assessment

Several methods were used to estimate how much and what kind of improvements were needed, and where, in order to provide health and public safety in the FBFA.

4.4.1.1 Health Facilities

Major medical facilities are planned by the I.H.S. for Tuba City, Bodaway, and Leupp. The proposed budgets for these facilities are included in this plan with a recommendation that they be fully funded. Together, these regional facilities are intended to serve the entire population of the nine Chapters for emergency and major health treatment.

Small health clinics with urgent care capability were suggested by Chapter members to provide closer triage for emergencies and better access to preventative and maintenance healthcare. For those chapters wanting health clinics and urgent care facilities in addition to the regional medical services, funds have been included.

4.4.1.2 Police and Fire Stations

Fire and rescue, police, and detention were topics of considerable discussion during the community workshops. While these have been included as individual projects as requested by the Chapters, they all must be considered together as a regional plan. Location is critical both because of length of travel and population density.

The size of the fire fighting facilities is determined by equipment. The minimum size includes space for one fire and one EMS vehicle plus limited space for equipment storage, administrative functions, and a day room.

Similarly, a police station with detention facilities will require a minimum number of functional elements. These will include male, female, and juvenile detention rooms, an office, storage, interview room, and others.

- It was assumed that all Chapters needing new facilities would have the same size fire and police station. All police stations are recommended at 6,000 and fire stations at 9,000 square feet.
- This space can be stand-alone, added to an existing police or fire facility, or in the case of police service, broken into smaller substations.

Rural Addressing / 911 Emergency Response

Emergency services and other normal activities are severely hampered by the lack of a rural address system. Without a way to identify the location of an individual house, it is difficult if not impossible to find. The field survey conducted as part of this study is a first step in attaching a descriptor to a physical location. This effort should be undertaken while the field survey data is fresh. Funds to continue the rural addressing project have been included in the recommended regional projects in the ICIP.

4.4.2 Infrastructure & Capital Improvement Projects

Chapter	Health / Public Safety Project	Description	Sq. Ft.	FBFA (%)	Project Readiness
Coalmine Canyon	Clinic	Health, Dental	6,500	95	Need feasibility study
Coppermine	Clinic	Health, Dental	6,500	45	Need feasibility study
Kaibeto	Clinic	Health, Dental	8,500	28	Need Feasibility Study, 200+ acres withdrawn around community for community, commercial, industrial uses
Tolani Lake	Clinic	Health, Dental	6,500	31	Need feasibility study
Tonalea	Clinic	Health, Dental, Eye	8,500	30	Need feasibility study
Bodaway-Gap	New Health Care Facilities	I.H.S - 2004 "Navajo Area Health Services Master Plan" for 2015 user population of 5002.	43,088	85	Need feasibility study
Cameron	New Health Care Facilities	I.H.S - 2004 "Navajo Area Health Services Master Plan" for 2015 user population of 5950.	50,000	100	Need feasibility study
Leupp	New Health Care Facilities	I.H.S - 2004 "Navajo Area Health Services Master Plan" for 2015 user population of 3994.	36,457	7	Need feasibility study

Chapter	Health / Public Safety Project	Description	Sq. Ft.	FBFA (%)	Project Readiness
Regional	Tuba City Health Clinic - Emergency Repairs	I.H.S. 2004 "Navajo Area Health Services Master Plan" for 2015 service population of 29,000 (6,500 or 22% in FBFA)	188,000	22	Functional Analysis Report done / Priority 1 5,885, Priority 2 10,570
	TC Regional Hospital - Renovate & Expand	I.H.S. - 2004 "Navajo Area Health Services Master Plan" for 2015 for service population of 29,000 (6,500 or 22% inside FBFA)	347,000	22	Need feasibility study: The expansion of this facility should be coordinated with similar projects proposed for Bodaway-Gap and Leupp.
Kaibeto	Urgent Care	Trauma equipped for triage and transport	400	28	Need feasibility study, 200+ acres withdrawn around community for community, commercial, industrial uses
Tolani Lake	Urgent Care	Trauma equipped for triage and transport	400	31	Need feasibility study
Coalmine Canyon	Court	Tribal	6,000	95	Need feasibility study
Tonalea	Court	Tribal	6,000		Need feasibility study
Cameron	Fire Stations	New Facility	9,000	100	Need feasibility study
Coalmine Canyon	Fire Stations	New Facility	9,000	95	Need feasibility study
Coppermine	Fire Stations	New Facility	9,000	45	Need feasibility study

Chapter	Health / Public Safety Project	Description	Sq. Ft.	FBFA (%)	Project Readiness
Kaibeto	Fire Stations	New Facility	9,000	28	Need feasibility study, 200+ acres withdrawn around community for community, commercial, industrial uses
	Fire Stations	New Facility	9,000	7	Need feasibility study: Discrepancies found about facilities and their conditions in 3 sources examined
Tolani Lake	Fire Stations	New Facility	9,000	31	Need feasibility study
Tonalea	Fire Stations	New Facility	9,000	30	Need feasibility study
Tuba City	Fire Stations	New Facility	1,800	12	Need feasibility study, Land withdrawn
Coalmine Canyon	Police and Fire Station	Police, Detention, Fire	13,000	95	Need feasibility study
Cameron	Police Station	Police, Detention, Sub-stations	4,000	100	Need feasibility study
Coalmine Canyon	Police Station	Police, Detention	4,000	95	Need feasibility study
Kaibeto	Police Station	Police, Detention, Sub-stations	4,000	28	Need feasibility study, 200+ acres withdrawn around community for community, commercial, industrial uses
Leupp	Police Station	Police, Detention	4,000	7	Need feasibility study
Tolani Lake	Police Station	Police, Detention, Sub-stations	4,000	31	Need feasibility study
Tonalea	Police Station	Police, Detention, Juvenile	4,000	30	Need feasibility study
Tuba City	Police Station	Police, Detention, Sub-stations, Replace old facility	8,000	12	Need feasibility study, Land withdrawn

Chapter	Health / Public Safety Project	Description	Sq. Ft.	FBFA (%)	Project Readiness
Coalmine Canyon	Prison			0	Need feasibility study
Bodaway-Gap	Fire Stations		9,000	85	Need feasibility study
Bodaway-Gap	Police Station	Police, Detention, Sub-stations	4,000	85	Need feasibility study
Regional	Study				
Regional	Regional Emergency and Hazard Management Plan	Regional Emergency and Hazard Management Plan			

Table 10: Health & Public Safety ICIP Project Descriptions

Table 11: Health & Public Safety ICIP Project Descriptions

4.4.3 Cost Estimate Summary

Chapter	Health / Public Safety Project	Sq. Ft.	Start Year	Planning	A & E Cost	Constr . Cost	F,F,&E	Total Cost (thousa nds)
Kaibeto	Clinic	8,500	2010	239	478	4,777	2,150	7,643
Tolani Lake	Clinic	6,500	2010	183	365	3,653	1,644	5,845
Regional	Emergency Repairs	188,000	2010	811	1,623	16,225	7,301	25,960
Cameron	Fire Stations	9,000	2010	260	519	5,193	2,597	8,568
Kaibeto	Fire Stations	9,000	2010	25	50	500	250	825
Leupp	Fire Stations	9,000	2010	25	50	500	250	825
Tonalea	Fire Stations	9,000	2010	25	50	500	250	825
Tuba City	Fire Stations	1,800	2010	500	1,000	10,000	5,000	16,500
Bodaway- Gap	Fire Stations	9,000	2010	251	501	5,013	2,507	8,271
Bodaway- Gap	New Health Care Facilities	43,088	2010	1,424	2,848	28,481	12,817	45,570
Cameron	New Health Care Facilities	50,000	2010	1,653	3,305	33,050	14,873	52,880
Leupp	New Health Care Facilities	36,457	2010	1,024	2,049	20,489	9,220	32,782
Coalmine Canyon	Police and Fire Station	13,000	2010	313	627	6,266	3,133	10,339
Cameron	Police Station	4,000	2010	96	193	1,928	964	3,181
Kaibeto	Police Station	4,000	2010	96	193	1,928	964	3,181
Leupp	Police Station	4,000	2010	96	193	1,928	964	3,181
Tolani Lake	Police Station	4,000	2010	96	193	1,928	964	3,181
Tonalea	Police Station	4,000	2010	96	193	1,928	964	3,181
Tuba City	Police Station	8,000	2010	193	386	3,856	1,928	6,362
Bodaway- Gap	Police Station	4,000	2010	96	193	1,928	964	3,181
Coppermin e	Clinic	6,500	2012	183	365	3,653	1,644	5,845

Chapter	Health / Public Safety Project	Sq. Ft.	Start Year	Planning	A & E Cost	Constr . Cost	F,F,&E	Total Cost (thousa nds)
Tonalea	Clinic	8,500	2012	239	478	4,777	2,150	7,643
Coppermine	Fire Stations	9,000	2012	25	50	500	250	825
Regional	Renovate & Expand TC Regional Hospital	347,000	2011	9,756	19,513	195,128	87,808	312,205
Kaibeto	Urgent Care	400	2012	13	26	264	119	423
Coalmine Canyon	Clinic	6,500	2013	183	365	3,653	1,644	5,845
Coalmine Canyon	Fire Stations	9,000	2013	251	501	5,013	2,507	8,271
Coalmine Canyon	Police Station	4,000	2013	96	193	1,928	964	3,181
Tolani Lake	Urgent Care	400	2013	13	26	264	119	423
Tonalea	Court	6,000	2014	167	334	3,342	1,671	5,514
Tolani Lake	Fire Stations	9,000	2015	25	50	500	250	825
Coalmine Canyon	Court	6,000	2016	167	334	3,342	1,671	5,514
Coalmine Canyon	Prison			0	0	0	0	0
Grand Total								598,799

Table 12: Health & Public Safety Project Costs

4.5 Community Facilities, Parks, and Recreation

Community and recreational facilities are key not only to health but also to providing safe, good activities for youth to participate in. Clustered housing in the absence of such activities has led in the past to a rise in vandalism, drugs and alcohol abuse, and gangs.

In order to approach this problem comprehensively, communities must provide solutions to the root cause, which is a lack of opportunities for youth – in terms of employment and recreational activities. Providing skate parks, community centers, and recreational facilities near to housing clusters and residential centers offers an alternative to negative behaviors often based on boredom, neglect, or lack of supervision. Many parents have to work; supervision falls to service organizations in order to provide guidance and structure to youth, which can happen most effectively and proactively through parks and recreation programs and facilities.

Often communities overlook recreation as one category of “non-essential” capital projects. A longer view shows communities can either provide parks and recreation facilities and programs, education, and job training now or invest significantly more resources later in order to fund detention facilities, drug treatment/rehabilitation centers, or financial assistance programs.

4.5.1 Needs Assessment

Several methods were used to estimate how much and what kind of improvements were needed, and where, in order to provide community facilities, parks, and recreation opportunities in the FBFA.

4.5.1.1 Community / Multipurpose Center

As the name implies, there were a multitude of uses for a Community or Multipurpose Center. These include meeting space, offices for tribal or federal services, senior and veteran activities, Post Office, museum, cultural center, Boy’s and Girl’s club, computer lab, and library. As with the Lifelong Learning Center, this is a facility that must adapt to the present and changing needs and wishes of the community and groups that use it.

- For this plan it is assumed that a 4,000 square foot building would provide sufficient space for a small chapter, 6,000 for the medium chapter, and 12,000 for the large chapter.
- This facility can be broken into different structures or combined with other functions such as the senior and veteran centers or the Chapter House.
- It is not intended that this structure will take the place of the Chapter House or the Recreation Building, although these could be combined into one building or complex of buildings.

4.5.1.2 Recreation Building

Space for exercise, recreation, youth programs, and organized sports was often mentioned as a need. This study combines the suggestions into one facility that serves both adult and youth programs.

A gymnasium with double basketball courts and bleachers will accommodate practice, play, and league sports. A large game room will provide a place for Chapter members to enjoy a variety of games ranging from board games to modern video games. An aerobics room with rubberized flooring and mirrored walls will accommodate a wide array of activities, including dancing, yoga, or spin cycle.

Two staff offices, a reception area, and a copy room will be the only administrative spaces. A large arts and crafts room can hold specialize equipment such as potter's wheels, kilns, and weaving equipment. Seating just off the entrance will provide a place for food service from a warming kitchen for children involved in summer and after school programs.

- Most of the rooms in the Recreation Building are of a fixed size; therefore, the size is the same for both the small and medium chapters at 27,000 square feet. For the large chapter, it is assumed that two Recreation Buildings are needed even though they may be combined into one structure.

4.5.1.3 Senior and Veterans Centers

Several chapters requested separate Senior Centers and Veteran Centers. In those cases, funds were included for stand-alone buildings. During the feasibility study, careful consideration should be made to combine these spaces with other structures such as the Community / Multipurpose Center. This action could ease the burden of maintenance and security and provide the flexibility to adapt to changing needs.

4.5.1.4 Community Development Corporation

All the projects described below will need a centralized, concerted effort to bring them to reality and support the need for coordination across depts., agencies, and chapters. A non-profit community development corporation (CDC) could not only help guide feasibility studies, planning efforts, land withdrawals, and construction, it could also provide much-needed guidance for chapters and individuals trying to navigate the process to implement the projects described below. In addition, such a semi-independent entity could apply directly for outside funding from private foundations and non-tribal entities.

Such an entity could be held accountable for the progress and completion of projects, reporting directly to the Former Bennett Freeze Task Force, directly serving the nine impacted chapters, and coordinating the efforts of the various agencies and departments with responsibility for implementing particular projects described below.

This recommendation was one of the key findings from the 1993 effort to delineate the needs for recovery from the former Bennett Freeze, and its advisability still stands, perhaps more than ever as the bureaucracy necessarily expands to serve the growing needs and meet the new challenges of the Navajo Nation. The large extent of the effort that will be needed to recover from the wide-ranging effects of the former Bennett Freeze, not to mention the amount and complexity of funding to meet these needs, necessitates a similarly responsible entity whose sole focus, reason for being, and responsibility, is the successful and efficient completion of capital projects to benefit the FBFA and its residents over the next fifteen years.

How such a CDC would be structured, where it would be located, how many and what kind of staff would be needed are all decisions that need to be negotiated by the Task Force, the affected Chapters, and the relevant departments and agencies. The CDC needs to be created in such a way as to aid existing efforts, not add another layer of bureaucracy that might slow down implementation of recovery projects.

4.5.2 Infrastructure & Capital Improvement Projects

Chapter	Comm. Fac. / P & R Projects	Description	Sq. Ft.	FBFA (%)	Project Readiness
Tuba City	Agriculture Study	New hatchery farm			Need feasibility study
Bodaway-Gap	Animal Shelter – Bitter Springs	Feasibility Study	2,500	85	Need feasibility study
Bodaway-Gap	Animal Shelter - Gap	Feasibility Study	2,500	85	Need feasibility study
Cameron	Animal Shelter	Feasibility Study	2,500	100	Need feasibility study
Leupp	Animal Shelter	New Animal Control Center/Shelter	2,500	7	
Tonalea	Animal Shelter	New Animal shelter & veterinary clinic	2,500	30	Need feasibility study
Tuba City	Animal Shelter – expand / upgrade	Feasibility Study	2,500	12	Need feasibility study
Tuba City	Animal Shelter – new boarding / vet clinic	Feasibility Study	2,500	12	Need feasibility study
Coalmine Canyon	Animal Shelter Van	Equipment		95	More info needed to estimate cost
Bodaway-Gap	Campground & RV Park	Identify land & study market feasibility of campground & RV Park @ Lee's Ferry		85	Need feasibility study
Bodaway-Gap	Campground & RV Park	Identify land & study market feasibility of campground & RV Park @ Navajo Springs		85	Need feasibility study
Tuba City	Campground & RV Park	Feasibility study to identify location / market feasibility / cost			Need feasibility study
Coppermine	Cemetery	Study to find location / feasibility / cost		45	

Chapter	Comm. Fac. / P & R Projects	Description	Sq. Ft.	FBFA (%)	Project Readiness
Bodaway-Gap	Cemetery / Veterans Cemetery	New Cemetery / Veterans Memorial		85	Need feasibility study
Coalmine Canyon	Cemetery / Veterans Cemetery	Study to find location / feasibility / cost		95	Need feasibility study
Kaibeto	Cemetery / Veterans Cemetery	Study to find location / feasibility / cost		28	Need feasibility study, 200+ acres withdrawn around community for community, commercial, industrial uses
Tuba City	Cemetery / Veterans Cemetery	Includes Veterans Cemetery		12	Need feasibility study
Regional	Chapter Boundary Study	Chapter Voter Boundary Assessment			Need feasibility study
Kaibeto	Chapter House - equipment	New office equipment		28	More info needed to estimate cost
Bodaway-Gap	Chapter House - renovation	Renovation or replacement of 40 year old building	4,000	85	Site Identified, withdrawn, project ready
Kaibeto	Chapter House - renovation	Add office space	2,000	28	Need feasibility study
Leupp	Chapter House - renovation	Chapter House renovation & addition	5,770	7	Design complete
Tuba City	Chapter House - renovation	Renovate T'Nanees'Dizi Local Government meeting hall	4,000	12	Need feasibility study: Facility size not clear from the info. Available
Tolani Lake	Chapter House - renovation	Chapter House improvement	2,070	31	Need feasibility study
Tuba City	Chapter House - repair - parking	Pave To'Nanees'Dizi local government parking lot		12	Need feasibility study: Size of this parking lot not clear from info. available

Chapter	Comm. Fac. / P & R Projects	Description	Sq. Ft.	FBFA (%)	Project Readiness
Cameron	Chapter House, Community Center	Replace the 3,500 SF Chapter House and add multipurpose space	10,000	100	
Bodaway-Gap	Church land	Site development		85	Site Identified, not withdrawn
Coalmine Canyon	Church land	Feasibility Study for site location, programming, cost		95	More info needed to estimate cost
Kaibeto	Church land	New faith-based district center		28	More info needed to estimate cost
Leupp	Church land	New Church Development		7	More info needed to estimate cost
Tolani Lake	Church land	New Church Development			More info needed to estimate cost
Tonalea	Community credit union	New facility			Need feasibility study
Regional	Community Development Corporation	Funds to oversee project management and studies until project-specific funds arrive			
Coalmine Canyon	Community garden study	Study to find location / feasibility / cost		95	Need feasibility study
Coppermine	Family Farm Study	Study to develop farms near homes - identify locations, cost		45	Need feasibility study
Kaibeto	Firing range	New Firing range			More info needed to estimate cost
Bodaway-Gap	Football Field / track	Football field / track		85	Need feasibility study
Tuba City	Golf Course study	New golf course with bingo hall			Need feasibility study
Tolani Lake	Golf Course study	New facility / Feasibility study needed to identify location, scope, cost			Need feasibility study
Leupp	Grand Falls Development Study	New Grand Falls Development			Need feasibility study

Chapter	Comm. Fac. / P & R Projects	Description	Sq. Ft.	FBFA (%)	Project Readiness
Coppermine	Livestock Facility Study	Study to identify needs, locations, cost		45	Need feasibility study
Tuba City	Livestock Facility Study	Impound lot, livestock management office			Need feasibility study
Tuba City	Livestock Facility Study	Relocate auction yard to rodeo ground			Need feasibility study
Tolani Lake Coalmine Canyon	Livestock Facility Study	Feasibility study needed to identify need, scope, location, cost			Need feasibility study
	Motorcross track	Feasibility Study			Need feasibility study
Bodaway-Gap	Multipurpose Center	Including Senior Center	6,000	85	Need feasibility study
Coppermine	Multipurpose Center	Includes Boys and girls club/youth center; Senior citizen center, Cultural Center	6,000	45	Need feasibility study
Kaibeto	Multipurpose Center	Includes Senior Center, One-stop tribal shop for services	6,000	28	Need feasibility study, 200+ acres withdrawn around community for community, commercial, industrial uses
Tuba City	Multipurpose Center	Includes One-stop Shop for Navajo Nation Programs			Need feasibility study
Tolani Lake	Multipurpose Center	Includes legal services / office, conflict resolution, Senior center, Social services office, Sub-office for FBFA issues	6,000	31	Need feasibility study: Records indicate existing 10,000 multipurpose building may duplicate proposed facility
Cameron	Multipurpose Center	New facility	6,000	100	Need feasibility study
Tonalea	Multipurpose Center - renovation	Addition to house Public Library, Job corps office, job office	3,300	30	Need feasibility study: Records indicate existing 10,000 multipurpose

Chapter	Comm. Fac. / P & R Projects	Description	Sq. Ft.	FBFA (%)	Project Readiness
					facility
Coalmine Canyon	Multipurpose Center / Museum	Includes Museum & cultural center, Social Security Admin & welfare office, Food Distribution Center, Library, NTUA sub office	4,000	95	Site withdrawn, planning done
Tolani Lake	Outdoor Recreation Center	Swimming pool; basketball outside; baseball fields		31	Need feasibility study
Bodaway-Gap	Park & ballfields	Playground, benches, shade, grill, softball, basket ball and grass			Need feasibility study
Cameron	Park & Ballfields	Youth recreation park / ballfields		100	Need feasibility study
Coalmine Canyon	Park & ballfields	New baseball field & skate park, Park w/basketball and picnic grounds		100	Site withdrawn
Tonalea	Park & ballfields	Grill and picnic, basketball, pavilion with shade, playground, skateboard park, softball, horseback riding facilities			Need feasibility study
Tuba City	Park & ballfields	New baseball/softball field		12	Need feasibility study
Bodaway-Gap	Picnic ground	Picnic ground		85	Need feasibility study
Tolani Lake	Playground	New facility		31	Need feasibility study
Bodaway-Gap	Post Office	New facility to house U.S. Postal Office	5,000	85	Need feasibility study
Coalmine Canyon	Post Office	New facility to house U.S. Postal Office	5,000	95	Need feasibility study
Coppermine	Post Office	New facility to house U.S. Postal	5,000	45	Need feasibility study

Chapter	Comm. Fac. / P & R Projects	Description	Sq. Ft.	FBFA (%)	Project Readiness
		Office			
Leupp	Post Office	Improved Post Office	5,000	7	
Tolani Lake	Post Office	New Post office	5,000	31	Need feasibility study
Cameron	Propane Station	For residential use		100	Need feasibility study
Leupp	Radio Station	New Radio Station		7	Need feasibility study
Bodaway-Gap	Recreation / Wellness Center	New youth/adult rec center, New Wellness Ctr	27,000	85	Need feasibility study
Leupp	Recreation Center	Youth	27,000	7	Need feasibility study
Tonalea	Recreation Center	Includes Boys & Girls Club; Fitness center; Recreational complex	27,000		Need feasibility study
Tuba City	Recreation Center	New Health club; New community and recreational center, New Community swimming pool and aquatic center	65,000	12	Need feasibility study
Tolani Lake	Recreation Center	Youth	27,000	31	Need feasibility study
Kaibeto	Recreation Center	Includes Boys & Girls Club; Fitness center; Recreational complex	27,000	28	Need feasibility study, 200+ acres withdrawn around community for community, commercial, industrial uses
Coalmine Canyon	Recreation Center / Pool	New facilities	27,000	95	Need feasibility study
Cameron	Recreational Trails Study	Feasibility Study		100	Need feasibility study
Coalmine Canyon	Recreational Trails Study	Study feasibility from windmill to Tuba City			Need feasibility study

Chapter	Comm. Fac. / P & R Projects	Description	Sq. Ft.	FBFA (%)	Project Readiness
Coppermine	Recreational Trails Study	Study to develop Antelope Trail, Mormon Trail, horse trails, ATV trails, guided tours, hiking/backpacking trails			Need feasibility study
Tuba City	Recreational Trails Study	New Bicycle trail (along Main Street / Hwy 160)		12	Need feasibility study
Tuba City	Recreational Trails Study	New ATV and quad track			Need feasibility study
Tuba City	Recreational Trails Study	New hiking and horseback riding trail			Need feasibility study
Tolani Lake	Recreational Trails Study	Horseback trails			Need feasibility study
Kaibeto	Rodeo Center	Relocate rodeo ground			Need feasibility study
Bodaway-Gap	Rodeo Center and trail rides	Rodeo Center and trail rides			Need feasibility study
Tuba City	Rodeo Center Study	Upgrade fair / rodeo grounds including bathroom			Need feasibility study
Tolani Lake	Rodeo Center Study	Feasibility Study needed to identify location, scope, cost			Need feasibility study
Cameron	Senior Center	Complete design / construction	6,000	100	Feasibility Study - design 75% complete
Kaibeto	Skate Park / Playground	New Skate park w/ playground equipment			Need feasibility study
Bodaway-Gap	Skate Parks	New facilities - 3 locations		85	Need feasibility study
Cameron	Sports Complex - indoor	Gym, aerobics, arts & crafts, etc.	27,000	100	Need feasibility study
Bodaway-Gap	Veterans Center	New facility - Project ready	2,000	85	Feasibility Study, Land withdrawn, Survey complete
Cameron	Veterans Center	New facility	2,000	100	Need feasibility study
Coalmine Canyon	Veterans Center	Includes monument	2,000	95	Need feasibility study
Coppermine	Veterans	New construction	2,000	45	

Chapter	Comm. Fac. / P & R Projects	Description	Sq. Ft.	FBFA (%)	Project Readiness
	Center				
Tonalea	Veterans Center	New facility	2,000	30	Need feasibility study
Tolani Lake	Veterans Center	New facility	2,000	31	Need feasibility study
Tuba City	Veterans center - parking	New Veterans parking lot		12	Feasibility Study, some design completed
Leupp	Veterans Memorial Park	New Veteran's Memorial Park			Need feasibility study
Tuba City	Veterans Memorial study	Memorial to remember our leaders; study needed to identify location, scope, cost			Need feasibility study
Tolani Lake	Veterinarian	Staff			Staff cannot be funded as capital project
Tuba City	Youth Center	New 4-H club facilities; New Boys and Girls facility	6,000	12	Need feasibility study

Table 13: Community Facility, Parks, & Recreation ICIP Project Descriptions

4.5.3 Cost Estimate Summary

Chapter	Comm. Fac. / P & R Projects	Sq. Ft.	Start Year	Planning Pre Design Cost	A/E Cost (Prof. fees)	Const. Cost	Project Mgmt	F,F&E	TOTAL COST (thousands)
Tuba City	Agriculture Study		2012	50	0		0	0	50
Leupp	Animal Shelter	2,500	2010	45	89	890	178	134	1,335
Tuba City	Animal Shelter – expand/upgrade	2,500	2010	45	89	890	178	134	1,335
Tuba City	Animal Shelter – new boarding and vet clinic	2,500	2010	45	89	890	178	134	1,335
Bodaway-Gap	Animal Shelter – Bitter Springs	2,500	2012	45	89	890	178	134	1,335
Bodaway-Gap	Animal Shelter - Gap	2,500	2012	45	89	890	178	134	1,335
Cameron	Animal Shelter	2,500	2012	45	89	890	178	134	1,335
Tonalea	Animal Shelter	2,500	2012	45	89	890	178	134	1,335
Coalmine Canyon	Animal Shelter Van		2012	0	0		0	0	0
Tuba City	Campground & RV Park		2012	25	0		0	0	25
Bodaway-Gap	Campground & RV Park – Bitter Springs		2014	25	0		0	0	25
Bodaway-Gap	Campground & RV Park - Gap		2014	25	0		0	0	25
Coppermine	Cemetery		2015	50	0		0	0	50
Bodaway-Gap	Cemetery / Veterans Cemetery		2010	25	0		0	0	25
Tuba City	Cemetery / Veterans Cemetery		2010	50	0		0	0	50

Chapter	Comm. Fac. / P & R Projects	Sq. Ft.	Start Year	Planning Pre Design Cost	A/E Cost (Prof. fees)	Const. Cost	Project Mgmt	F,F&E	TOTAL COST (thousands)
Kaibeto	Cemetery / Veterans Cemetery		2014	50	0		0	0	50
Coalmine Canyon	Cemetery / Veterans Cemetery		2016	50	0		0	0	50
Kaibeto	Chapter House - equipment		2012	0	0		0	0	0
Bodaway-Gap	Chapter House - renovation	4,000	2010	71	142	1424	285	214	2,136
Kaibeto	Chapter House - renovation	2,000	2010	36	71.2	712	142	107	1,068
Leupp	Chapter House - renovation	5,770	2010			1544	309	232	2,084
Tolani Lake	Chapter House - renovation	2,070	2010	21	41.4	414	83	62	621
Tuba City	Chapter House - renovation	4,000	2010	40	80	800	160	120	1,200
Tuba City	Chapter House - repair - parking		2010	10	0		0	0	10
Cameron Bodaway-Gap	Chapter House, Community Center	10,000	2010	178	356	3560	712	534	5,340
Leupp	Church land		2012	0	0		0	0	0
Tolani Lake	Church land		2014	0	0		0	0	0
Coalmine Canyon	Church land		2015	0	0		0	0	0
Kaibeto	Church land		2016	0	0		0	0	0
Tonalea	Community credit union		2015	50	0		0	0	50
Coalmine Canyon	Community garden study		2016	50	0		0	0	50
Coppermine Kaibeto	Family Farm Study		2012	50	0		0	0	50
	Firing		2016	0	0		0	0	0

Chapter	Comm. Fac. / P & R Projects	Sq. Ft.	Start Year	Planning Pre Design Cost	A/E Cost (Prof. fees)	Const. Cost	Project Mgmt	F,F&E	TOTAL COST (thousands)
	range								
Bodaway-Gap	Football Field / track		2014	5	9	93	19	14	140
Tolani Lake	Golf Course study		2014	50	0		0	0	50
Tuba City	Golf Course study		2014	50	0		0	0	50
Leupp	Grand Falls Development Study		2014	50	0		0	0	50
Coppermine	Livestock Facility Study		2012	50	0		0	0	50
Tolani Lake	Livestock Facility Study		2012	50	0		0	0	50
Tuba City	Livestock Facility Study		2012	50	0		0	0	50
Tuba City	Livestock Facility Study		2014	50	0		0	0	50
Tuba City Coalmine Canyon	Motorcross track		2011	50	0		0	0	50
Cameron	Multipurpose Center	6,000	2010	107	214	2136	427	320	3,204
Kaibeto	Multipurpose Center	6,000	2010	107	213.6	2136	427	320	3,204
Tolani Lake	Multipurpose Center	6,000	2010	107	213.6	2136	427	320	3,204
Tuba City	Multipurpose Center		2010	50	0		0	0	50
Bodaway-Gap	Multipurpose Center	6,000	2012	107	214	2136	427	320	3,204
Coppermine	Multipurpose Center	6,000	2012	107	213.6	2136	427	320	3,204
Tonalea	Multipurpose Center - renovation	3,300	2012	59	117.48	1175	235	176	1,762

Chapter	Comm. Fac. / P & R Projects	Sq. Ft.	Start Year	Planning Pre Design Cost	A/E Cost (Prof. fees)	Const. Cost	Project Mgmt	F,F&E	TOTAL COST (thousands)
	n								
Coalmine Canyon	Multipurpose Center / Museum	4,000	2010		142.4	1424	285	214	2,065
Tolani Lake	Outdoor Recreation Center		2010	8	15	150	30	0	203
Bodaway-Gap	Park & ballfields		2010	5	9	93	19	0	126
Coalmine Canyon	Park & ballfields		2010	50	100	1000	200	0	1,350
Tuba City	Park & ballfields		2010	5	9	93	19	0	126
Cameron	Park & Ballfields		2012	5	9	93	19	0	126
Tonalea	Park & ballfields		2012	5	9.3	93	19	0	126
Bodaway-Gap	Picnic ground		2012	5	9	93	19	0	126
Tolani Lake	Playground		2012	5	9.3	93	19	0	126
Leupp	Post Office	5,000	2010	89	178	1780	356	267	2,670
Tolani Lake	Post Office	5,000	2011	89	178	1780	356	267	2,670
Coppermine	Post Office	5,000	2012	89	178	1780	356	267	2,670
Bodaway-Gap	Post Office	5,000	2014	89	178	1780	356	267	2,670
Coalmine Canyon	Post Office	5,000	2016	89	178	1780	356	267	2,670
Cameron	Propane Station		2012	50	0		0	0	50
Leupp	Radio Station		2014	50	0		0	0	50
Bodaway-Gap	Recreation / Wellness Center	27,000	2010	539	1077	10773	2,155	1,616	16,160
Tuba City	Recreation Center	65,000	2010	1297	2594	25935	5,187	3,890	38,903
Tolani Lake	Recreation Center	27,000	2011	539	1077.3	10773	2,155	1,616	16,160

Chapter	Comm. Fac. / P & R Projects	Sq. Ft.	Start Year	Planning Pre Design Cost	A/E Cost (Prof. fees)	Const. Cost	Project Mgmt	F,F&E	TOTAL COST (thousands)
Leupp	Recreation Center	27,000	2012	539	1077	10773	2,155	1,616	16,160
Tonalea	Recreation Center	27,000	2012	539	1077.3	10773	2,155	1,616	16,160
Kaibeto	Recreation Center	27,000	2013	539	1077.3	10773	2,155	1,616	16,160
Coalmine Canyon	Recreation Center / Pool	27,000	2016	539	1077	10773	2,155	1,616	16,160
Coalmine Canyon	Recreational Trails Study		2011	50	0		0	0	50
Coppermine	Recreational Trails Study		2011	250	0		0	0	250
Cameron	Recreational Trails Study		2012	50	0		0	0	50
Tolani Lake	Recreational Trails Study		2012	50	0		0	0	50
Tuba City	Recreational Trails Study		2012	50	0		0	0	50
Tuba City	Recreational Trails Study		2012	50	0		0	0	50
Tuba City	Recreational Trails Study		2012	50	0		0	0	50
Kaibeto	Rodeo Center		2014	50	0		0	0	50
Bodaway-Gap	Rodeo Center and trail rides		2012	50	0		0	0	50
Tuba City	Rodeo Center Study		2011	50	0		0	0	50
Tolani Lake	Rodeo Center Study		2014	50			0	0	50
Cameron	Senior Center	6,000	2010		120	1200	240	180	1,740
Kaibeto	Skate Park / Playgroun		2012	50	0		0	0	50

Chapter	Comm. Fac. / P & R Projects	Sq. Ft.	Start Year	Planning Pre Design Cost	A/E Cost (Prof. fees)	Const. Cost	Project Mgmt	F,F&E	TOTAL COST (thousands)
	d								
Bodaway-Gap	Skate Parks		2012	50	0	0	0	0	50
Cameron Bodaway-Gap	Sports Complex - indoor	27,000	2010	539	1077	10773	2,155	1,616	16,160
Cameron	Veterans Center	2,000	2010	36	71	712	142	107	1,068
Coppermine	Veterans Center	2,000	2010	36	71	712	142	107	1,068
Tolani Lake	Veterans Center	2,000	2012	36	71.2	712	142	107	1,068
Tonalea Coalmine Canyon	Veterans Center	2,000	2011	36	71.2	712	142	107	1,068
	Veterans Center	2,000	2012	36	71.2	712	142	107	1,068
	Veterans Center	2,000	2016	36	71.2	712	142	107	1,068
Tuba City	Veterans center - parking		2010	10	0		0	0	10
Leupp	Veterans Memorial Park		2014	50	0		0	0	50
Tuba City	Veterans Memorial study		2016	10	0		0	0	10
Tolani Lake	Veterinarian		2014	0	0		0	0	0
Tuba City	Youth Center	6,000	2012	107	214	2136	427	320	3,204
Regional	Chapter Boundary Study		2010	250	0		0	0	250
Regional	Community Development Corporation		2010			1000	0	0	1,000
Grand Total									224,038

Table 14: Community Facilities, Parks, & Recreation Project Costs

4.6 Economic Development

As with community facilities, parks, and recreation, economic development is often deemed too expensive for benefits that may be far in the future. Making the investment in economic development plants the seeds for future generations, as well as improving opportunities to enhance the quality of life of all residents.

In general, economic development must generate enough activity and revenue to support themselves. After an initial investment for infrastructure improvements and site development, private investors must be willing and able to invest their capital in the community. There are some additional risks to businesses operating on tribal land. Obtaining insurance and mortgage funds can sometimes be tricky. Communities must do what they can to foster good conditions for business.

In order to make these developments as successful as possible so they can continue to serve the community and offer more jobs, clustering activities along roads and population centers is key. As these locations are often the boundaries between chapter service areas, neighboring chapters must work together to support desired development. This plan recommends clustering multiple facilities near each other and existing tourist attractions, both to improve business conditions, but also to preserve as much land for grazing as possible, versus letting development spread onto undeveloped lands.

Many of the projects identified below are regional improvements that will require significant regional cooperation and coordination. They are therefore categorized as regional in the ICIP.

4.6.1 Needs Assessment

Several methods were used to estimate how much and what kind of improvements were needed, and where, in order to provide economic development in the FBFA.

The economic development strategy was based upon the desires expressed and projects identified during Chapter meetings, interviews with Navajo Nation and regional economic development agencies, policy documents of the Navajo Nation, and the goals of existing Land Use Plans. The ideas presented at these meetings and in the various documents were compiled into a comprehensive list of projects that will contribute to the economic health of the region. The desired locations of the economic development projects were then mapped.

Projects were assessed based on their proximity to other projects on the list, the potential for grouping economic development projects with other types of projects such as community facilities or infrastructure improvements, the potential to benefit multiple

chapters, access to existing infrastructure, proximity to tourist attractions and other factors likely to contribute to the project's success.

Clustering the larger projects has four important benefits. First, it minimizes the need to withdraw sites and minimizes the impact on existing site leases and grazing land. Second, it makes the most efficient use of infrastructure investments, keeping infrastructure costs to a minimum while supporting significant facilities for the residents of the Former Bennett Freeze area. Third, the clustering of activities within the chapters creates convenient places for residents to live, work, shop, and conduct day to day business. Fourth, clustering activities in central locations enables businesses and service providers to benefit from the convenience of meeting their needs nearby.

Many residents live and work from their homes, many as ranchers and farmers. For these families, rural economic development projects are intended to support their ability to develop products at home and improve access to markets for their products. These projects include direct support for artists and craftsman, ranchers, and farmers.

In addition to agriculture and arts and crafts, rural development may include resource based business activity. For example, depending upon the desired application, wind farm locations will be selected based upon the reliability of the wind resource and access to the power grid. Agricultural facilities, such as community corrals or storage and distribution facilities, will be located at sites convenient to both farmers and buyers or distributors.

Tourist centers are located close to or on the way to tourist destinations, so they will not always be within a commercial center. Locating hotels, restaurants and other tourist oriented businesses within centers along major tourist routes increases opportunities for visitors to purchase other goods and services available in the centers. When tourist facilities are located at more remote sites near a visitor attraction, clustering lodging, meals, cultural centers, and retail in these locations will encourage visitors to visit multiple businesses, improving the potential for each to be successful.

Projects were grouped into one of three categories of potential development sites.

- **Business Centers.** Projects that require accessibility and visibility or will benefit from being part of a cluster of activities are grouped into key centers.
- **Rural Development.** Projects that enhance the economy of the region's more remote areas are located where the resources to support them exist. Rural development projects are related to home businesses, agriculture and alternative energy (wind power).
- **Tourism Development.** Projects that support the region's tourism industry are located along routes traveled by tourists or close to visitor attractions.

Table 12 lists projects by Chapter and identifies locations for each project. The locations of potential development sites are shown in Figure XX (Potential Development Sites map). Projects are generally described below.

4.6.1.1 Business Centers

Based on existing infrastructure and population distribution, there are several opportunities for business parks or business districts that enhance economic opportunities by clustering commercial sites with housing, infrastructure improvements, community facilities, and schools. As shown in **Figure 26**, most of these potential development sites, or business centers, are located along US Highway 89 and US Highway 160. Additional centers are proposed along Arizona Route 99 and Navajo Route 2 in Leupp and Tolani Lake.

The system of highways through the Former Bennett Freeze area provides the transportation network that supports economic development. Some types of economic activity require the access and visibility provided by the roadway infrastructure. Other activities, such as agriculture, home based businesses and wind power generation, may be located based on resources rather than proximity to well traveled highways. The economic development strategy includes projects that will cluster along roads, projects in more remote areas that are located based on the location of resources, and tourism oriented projects that are located near visitor attractions.

For those projects or activities that depend upon roads, Highway 89 serves as the north/south spine through the area, connecting from I-40 and Flagstaff to Page. Much of the region's tourist traffic is along Highway 89, and access to existing business centers is via Highway 89.

In the southeastern portion of the area, which encompasses portions of Tolani Lake and Leupp, access is directly to I-40.

4.6.1.2 Rural Development

Several potential development sites were identified at locations away from the business centers. These include locations suitable for wind power generation, agricultural development, and home based businesses.

Potential sites for wind farm development are in Cameron just west of Gray Mountain, in Coalmine Mesa along the escarpment of Adeii Echii Cliff. A feasibility study was requested to verify the potential for wind power generation in these locations.

Agricultural projects are geared to on-site improvements, such as earthen dams to create livestock ponds, moveable and permanent fencing, and pasture improvements. These projects are dispersed throughout the region and would benefit individual sites. The appropriate project might be designed as a program of technical and financial assistance.

Facilities that would serve a larger area include community farms, centralized warehousing and distribution for agricultural products, agricultural retail (feed store, sales outlets for agricultural products), a community livestock corrals (new and renovated), a livestock auction yard, and related services (veterinarian).

Improvements in regional communication infrastructure would enable residents to conduct business from remote sites.

4.6.1.3 Tourism Development

The numerous natural and cultural attractions in the region bring millions of visitors to the region each year. Highway 89 serves as access from I-40 to the Grand Canyon Desert View entrance, Lake Powell and Glen Canyon National Recreation Area, national monuments and national forests, as shown in **Figure 26** below. Potential tourist-oriented development sites are located close to the attractions or along roads that access the attractions.

The types of economic development projects that are proposed near visitor attractions include visitor centers; permanent vendor booths; parking, playgrounds, trails, picnic facilities, restrooms, RV parks and other tourist amenities and small-scale retail and food establishments. These projects have minimal infrastructure requirements appropriate to a remote location. Water supply may be a concern, so that water conservation and a safe water source will be important to the design of these facilities.

Project that require water and wastewater systems and better access are shown in centers that will have infrastructure to support them. These projects include motels, casinos, and larger restaurants. Larger visitor centers and arts and crafts outlets would be part of these projects.

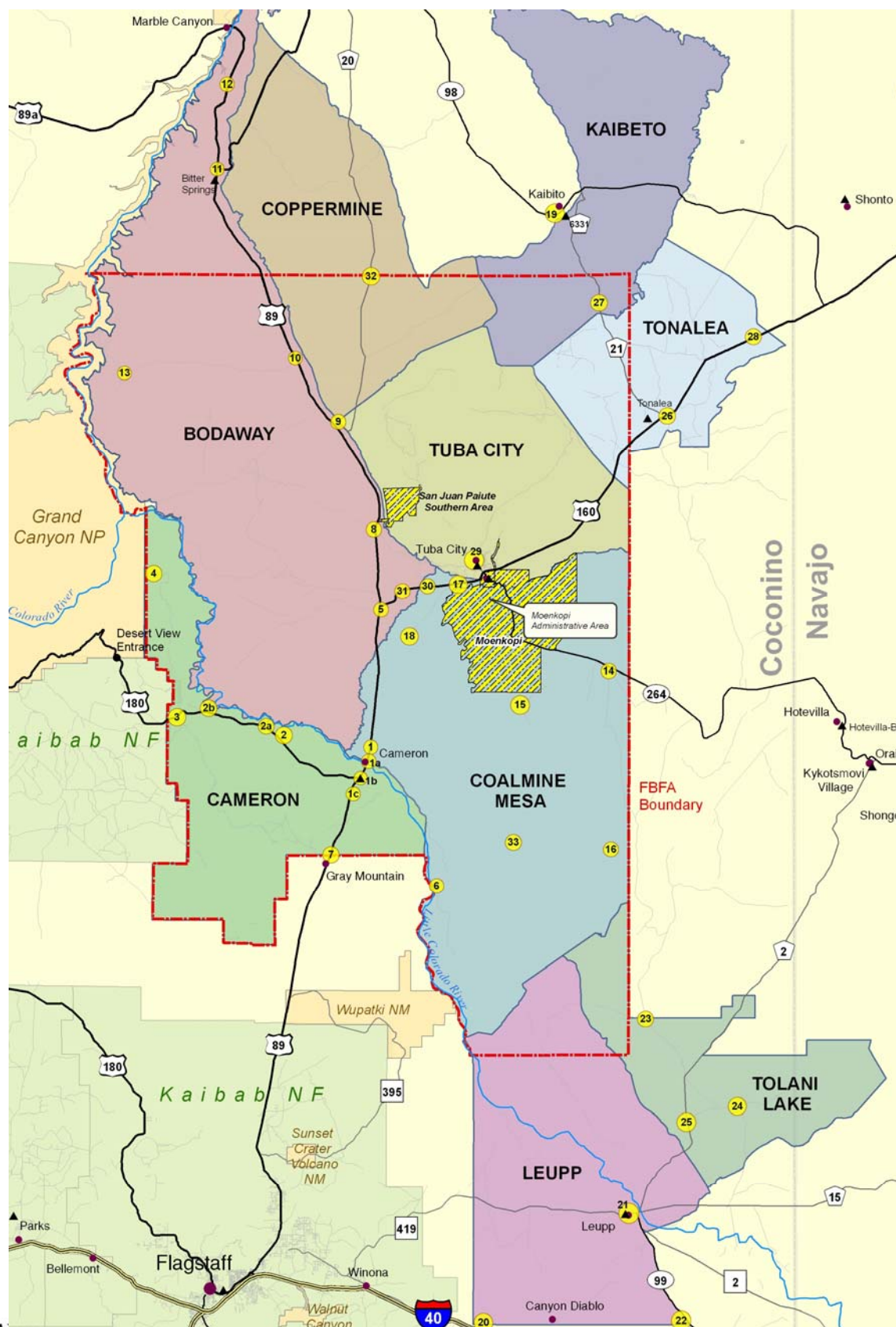


Figure 32: Economic Development Sites - Numbered in Yellow Circles

4.6.2 Infrastructure & Capital Improvement Projects

Chapter	Econ. Dev. Projects	Description	FBFA (%)	Project Readiness
Leupp	Amusement Park	Market Study		Needs feasibility study
Regional C	Business Center – Cameron (#3)	Serves Grand Canyon tourists	In	Needs feasibility study
Regional TC	Business Center – Airport (#31)	Retail stores, gas stations, eatery centers, hotels, fast food, big retailers, tourist office, lookout point, trucking location, auto maintenance yard, park, housing, fire station, small clinic, trailer court, RV Park, and bingo-casino hall.	In	Land withdrawal; adjacent to airport. Water, utilities, and sewage possible. APS has existing power lines w/in 200 feet. Fresh water line will need to be installed extending from VanZee Moenave area to Highway 89 and southbound down to the highway 89/160 junction development site. New sewage lagoon and new modern water treatment system for reclaimed irrigation system for fire stations and landscaping. Major upgrade and renovation of a 110 ft extension and major flood control and drainage system. There is a controlled wash with dikes to prevent any major flooding and for erosion control.

Chapter	Econ. Dev. Projects	Description	FBFA (%)	Project Readiness
Regional B	Business Center - Bitter Springs (#11)	Along Hwy 89 - Site 1: electricity and water available (no other utilities) Site 2: electricity and water available (no other utilities) Site 3: electricity, water and sewer available (no other utilities) Site 4: water, sewer, electricity, telephone available, no natural gas lines 5: utilities available, no natural gas lines	In	Some land withdrawn for commercial, currently undeveloped. For all sites: potential risk from heavy metals and radiation;
	Business Center - Cedar Ridge (#10)	Along Hwy 89 - Site 1: electricity, water, telephone available; no sewer lagoons or natural gas, Site 2: electricity, water, and telephone are available; no sewer lagoons or natural gas Site 3: electricity, water, telephone available; no sewer lagoons or natural gas lines Site 4: electricity, water, telephone available; no sewer lagoons or natural gas lines	In	Some land withdrawn for commercial, currently undeveloped.

Chapter	Econ. Dev. Projects	Description	FBFA (%)	Project Readiness
Regional CC	Business Center - Coalmine Canyon (#14)	Business sites in community tract to serve residential development near the Chapter House as well as people traveling along Highway 264 between Tuba City and Oraibi.	In	97.8 acres withdrawn; designated for 2 Commercial tracts and 2 Light Industrial tracts
Regional CM	Business Center – Coppermine (#32)	Residential, commercial	In	Needs feasibility study
Regional T	Business Center - Cow Springs (#28)	Existing residential, trading post and rest stop. Located along Highway 160; 2007 AADT traffic counts along Highway 160 between Tuba City and Kayenta range from 3900 to 4600; Also fed by traffic from Highway 98 from Page. Annual expenditure potential for convenience goods for the Chapter is \$2.7 million.	Out	Existing water lines adjacent to site; wastewater system available; electricity available; no natural gas
Regional C	Business Center - Dzil Lichii (#4)	Navajo Bed and Breakfast establishment in unique location where Little Colorado River flows into the Grand Canyon. Very sensitive wildlife zone; hence, the Bed and Breakfast would fit w/ the natural environment only w/o electricity or running water	In	Needs feasibility study

Chapter	Econ. Dev. Projects	Description	FBFA (%)	Project Readiness
Regional C	Business Center - First Overlook (#2a)	Attractive vendor spaces, unique identity and character, and educational or informational features. Compatible w/ parks program for preserving natural areas, unique character of "vendor spaces," and prominent views	In	Needs feasibility study
	Business Center – Gap (# 9)	Gap has limited available sites for commercial and institutional development; needs reserved site for comm/retail; Site 1: electricity, water and sewer available	In	Needs feasibility study
Regional B, C, CC	Business Center – Junction (#1)	AADT 2007 traffic count on Highway 89 between Flagstaff and junction with Highway 160 ranges from 6900 to 8300 vehicles; Highway 89 connects 5 chapters and tourist sites; regional development corridor	In	Needs feasibility study
	Business Center – Kaibeto (#19)	Current development includes gas station, C-store, trading post / 120 acres w/drawn for industrial and 80 acres for commercial development	In	120 acres w/drawn for industrial and 80 acres for commercial development

Chapter	Econ. Dev. Projects	Description	FBFA (%)	Project Readiness
Regional CC, TC	Business Center - Kerley Valley (#17)		In	Site 1: withdrawn 50 acres; Site 2: tribal trust 22.65 acres, business park undeveloped; Site 3: tribal trust, currently used as agricultural; ----- Site from Tuba City CLUP is for industrial, RBDO has approved resolution and is obtaining funding for development
	Business Center – Leupp (#21)	Near existing development; land status unknown	Out	Needs feasibility study
Regional C CC		Riverfront businesses for tourists on both sides of US Hwy 89. Highlight spectacular views of the Little Colorado River to the south ; Painted Desert Resort and Casino - including significant utility and infrastructure improvements and jobs. Initial hotel construction 60 rooms in several two and three (room?) structures on north rim of Little Colorado River. Gaming facility = single level structure with a daylight basement on approximately 70 acres, directly east of Highway 89, north of the Cameron Bridge.		
	Business Center - Little Colorado (1#a)		In	Needs feasibility study

Chapter	Econ. Dev. Projects	Description	FBFA (%)	Project Readiness
Regional TC	Business Center - Moenave / Dinosaur Tracks (#30)	Informal tourism at Dinosaur Tracks already exists - opportunity to formalize, enhance experience and protect resources; Excellent access from Highway 160; 2007 AADT counts along this stretch of Highway 160 are 5400	In	Needs feasibility study
	Business Center - Navajo Springs (#12)	Along Hwy 89 - For all sites: lack of infrastructure, low population, potential risk from heavy metals and radiation Site 1: No utilities Site 2: No utilities Site 3: No utilities	Out	
Regional TL	Business Center – Newberry (#25)	Jct. Rte. 2 and 24 / Annual expenditure potential of the Chapter for convenience goods is \$914,625	Out	Water is available across Indian Route 2; road access is excellent; electricity is available across major roads; at junction with steady traffic count (according to housing study); will need new sewer lagoon
Regional CC	Business Center - Rifle Range (#18)	A minimum security prison to serve the region and an environmentally safe and strategically located solid waste disposal facility	In	Tribal Trust, 100+ acres
Regional CC	Business Center – Rockhead (#33)	Exact location unknown - near Rockhead community, west of FJUA line and some 4 miles north of the road running west from Tonali Lake-Blackfalls	In	Needs feasibility study

Chapter	Econ. Dev. Projects	Description	FBFA (%)	Project Readiness
Regional C	Business Center - To Bee Hwiisgani (#6)	Business park, community facilities, and housing. Businesses to service community, but also tourists.	In	Needs feasibility study
	Business Center - Tolani Lake - Jct. 6720/6730 (#23)	Annual expenditure potential of the Chapter for convenience goods is \$914,625	Out	No sewer system or natural gas available; water and electrical available nearby
Regional TL	Business Center - Tolani Lake - Jct. 6810/6820 (#24)	Annual expenditure potential of the Chapter for convenience goods is \$914,625	Out	Water and electricity are available on site; poor road access from a dirt road that is maintained
Regional T		Along Highway 160; 2007 AADT traffic counts range from 3900 to 4600; Also traffic from Highway 98 from Page; Annual expenditure potential for convenience goods for the Chapter is \$2.7 million; located near Kayenta, already a commercial center		
	Business Center - Tonalea (#26)		Out	Existing water lines adjacent to site; wastewater system is available; electricity available; natural gas is not available

Chapter	Econ. Dev. Projects	Description	FBFA (%)	Project Readiness
Regional TC	Business Center - Tuba City (#29)	Residential, commercial, lodging, tourism, gas station, public facilities and services. Designated as a primary growth center of NN; near existing development and infrastructure; 2007 AADT counts along Highway 160 in Tuba City is 11,500 vehicles; along major transportation corridor for region; regional destination for services and retail	In	See CLUP - several sites identified in Tuba City
	Business Center - Western Diné Gateway (#1b)	Highway oriented development at US Highway 89 and AZ Highway 64 with pedestrian, vehicle safety. Tourist amenities, retail convenience and personal services.	In	Needs feasibility study
Regional CC	Rural Development - Goldtooth Farm (#15)	Agriculture is being revitalized in Chapter; this is an area for potential farming	In	Tribal trust; approximately 10 square miles
	Rural Development - Hidden Springs (#8)	Community livestock corral rehab: no utilities, good access from Highway 89, presence of abandoned uranium mines in Hidden Springs, development restricted to 1,000 feet within road to avoid floodplain	In	Needs feasibility study
Regional B, C, CC				

Chapter	Econ. Dev. Projects	Description	FBFA (%)	Project Readiness
Regional L	Rural Development - Leupp Solar Farm (#22)	New facility	Out	100 acre industrial park; occupied by light industrial and office, Near existing development and infrastructure; land withdrawn
	Rural Development - Ranch Resort & Retail (#13)	Business sites will serve newer residential development and travelers along Highway 264 between Tuba City and Oraibi.	In	97.8 acres withdrawn; designated for 2 Commercial tracts and 2 Light Industrial tracts
Regional C	Rural Development - Wind farm (#7)	From Diné Wind Project info: target date for construction is 2008-2009	In	Needs feasibility study
Regional CC	Rural Development - Windmill Industries (#16)	Community members identified this as an area for solar and wind turbines	In	Tribal trust; approximately 12 square miles
	Tourism Development - Junction (#5)	Potential for regional impact; 2007 AADT counts near this intersection are 7900 vehicles; junction of two vital regional transportation corridors; development for tourism and residents; easy accessible for region's residents; Presence of petrified wood and uranium in the soil; near Tuba City's airport (along Highway 160)	In	In Bodaway Chapter: 100 acres; Land withdrawn; Environmental Assessment complete; Archeological Clearance complete; Tuba City RBDO has obtained flood, soil and environmental studies

Chapter	Econ. Dev. Projects	Description	FBFA (%)	Project Readiness
Regional L	Tourism Development - Leupp Casino & Gas Station (#20)	No highway interchange to site; good visibility from I-40 but no access currently	Out	No existing development; land status unknown
	Tourism Development - Little Colorado River Gorge (#2)	Tourism and commerce based on unique narrow gorge area of the Little Colorado. Rest areas with picnic tables. Native vendor booths for handmade crafts. Small fee-based walking trails, either guided or self-guided.	In	Needs feasibility study
Regional C	Tourism Development - Pendleton Wool (#1c)	Industrial site on land large enough to support development and expansion. Businesses typically require on-site storage of materials, structures for operations, and direct access to trucking routes.	In	Needs feasibility study
Regional C	Tourism Development - Vendor's Plaza (#2a)	Attractive vendor spaces, unique identity and character, and educational or informational features. Compatible w/ parks program for preserving natural areas, unique character of "vendor spaces," and prominent views	In	Needs feasibility study

Chapter	Econ. Dev. Projects	Description	FBFA (%)	Project Readiness
Regional T	Tourism Development - White Mesa (# 27)	Residential, commercial, recreation	In	Navajo Route 21 is dirt, but plans for paving are underway; lacks nearby water facilities; no wastewater facilities; electric power available; natural gas not available

Table 15: Economic Development ICIP Project Descriptions

4.6.3 Cost Estimate Summary

Chapter	Econ. Dev. Projects	Start Year	Planning	A/E Cost	Cons tr. Cost	Project Mgmt	F,F&E	TOTAL COST (thousands)
Leupp	Amusement Park	2014	50	0		0	0	50
Regional B	Business Center - Gap	2010	200	0		0	0	200
Regional B	Business Center - Cedar Ridge	2010	200	0		0	0	200
Regional B	Business Center - Bitter Springs	2010	200	0		0	0	200
Regional B	Business Center - Navajo Springs	2010	200	0		0	0	200
Regional B	Rural Development - Ranch Resort & Retail	2010	200	0		0	0	200
Regional B, C, CC	Business Center - Junction	2010	200	0		0	0	200
Regional B, C, CC	Rural Development - Hidden Springs	2010	200	0		0	0	200
Regional B, C, CC	Tourism Development - Junction	2010	200	0		0	0	200
Regional C	Business Center	2010	200	0		0	0	200
Regional C	Business Center - Dzil Lichii	2010	200	0		0	0	200
Regional C	Business Center - Western Diné Gateway	2010	200	0		0	0	200
Regional C	Business Center - First Overlook	2010	200	0		0	0	200
Regional C	Business Center - To Bee Hwiisgani	2010	200	0		0	0	200
Regional C	Rural Development - Wind farm	2010	200	0		0	0	200

Chapter	Econ. Dev. Projects	Start Year	Planning	A/E Cost	Cons tr. Cost	Project Mgmt	F,F&E	TOTAL COST (thousands)
Regional C	Tourism Development - Vendor's Plaza	2010	200	0		0	0	200
Regional C	Tourism Development - Pendleton Wool	2010	200	0		0	0	200
Regional C	Tourism Development - Little Colorado River Gorge	2010	200	0		0	0	200
Regional C CC	Business Center - Little Colorado	2010	200	0		0	0	200
Regional CC	Business Center - Coalmine Canyon	2010	200	0		0	0	200
Regional CC	Business Center - Rifle Range	2010	200	0		0	0	200
Regional CC	Business Center - Rockhead	2010	200	0		0	0	200
Regional CC	Rural Development - Goldtooth Farm	2010	200	0		0	0	200
Regional CC	Rural Development - Windmill Industries	2010	200	0		0	0	200
Grand Total								7,650

Table 16: Economic Development Project Costs

4.7 Agriculture, Grazing, and “Areas of Avoidance”

Many residents in the FBF-A have stayed in their communities because they are tied to the land and value living a traditional way of life. As many shared, their sheep and farms have kept them alive for the years during the freeze. These strong ties to cultural beliefs and origins must be honored and maintained. For many elders, it is the only way of life they know, and the only one they would choose.

Even those embracing a more modern way of life emphasize the need for fully self-sustaining communities, where the necessities of life, including food, can be grown and cultivated. The growing effects of global warming, including the scarcity of oil and therefore rising gas prices, recommends a response to provide the basics nearer to home, eliminating the need for extensive trucking and costs of transportation.

Preserving and cultivating this self-sufficiency will take more than the simple building of water infrastructure or livestock facilities. Communities must also strengthen their planning, knowledge, and policies to protect both grazing and agriculture, but also “areas of avoidance” – or those areas with cultural, religious, ceremonial, environmental, or historical significance – that must be protected from development in perpetuity.

In addition to policies, agriculture and grazing activities should be coordinated with economic development efforts, as they go beyond subsistence to a potential for sales and regional activity, such as rodeos, which can bring visitors. The connections to traditional weaving should also be cultivated.

4.7.1 Needs Assessment

Several methods were used to estimate how much and what kind of improvements were needed, and where, in order to provide for agriculture and livestock grazing opportunities in the FBFA.

Many of the individual items requested at community workshops did not have sufficient information to generate a cost estimate. These items were rolled into a larger planning effort to determine the needs, locations, cost, and feasibility of providing solutions. In addition, a larger study should be conducted to survey and catalog cultural resources, as deemed appropriate by communities.

4.7.2 Infrastructure & Capital Improvement Projects

Chapter	Project	Project Description	Project Readiness
Regional	EIS - Cultural Resources	Cultural Resources	Study needed to identify & protect cultural resources and "areas of avoidance"
Regional	EIS - Water and Land	Water and Land	Study needed to evaluate condition of water sources and grazing land
Regional	EIS - Wildlife and Plants	Wildlife and Plants	Study needed to protect endangered species and wildlife, remediation
Regional	Livestock / Agricultural Water Provision Study & Plan	Irrigation, windmills, earthen dams, tanks, water for livestock	Study needed to identify what's needed and how best to provide it
Regional	Range and Farm Management Plan	Farm feasibility, community corrals, grazing, fencing, range management, range enforcement officers, permitting process	Study needed to identify what's needed and how best to provide it

Table 17: Agriculture, Grazing, & "Areas of Avoidance" ICIP Project Descriptions

4.7.3 Cost Estimate Summary

Chapter	Project	Start Year	Planning Pre Design Amount	A/E Amount (Prof. fees)	Construction Amount	Project Mgmt	F,F &E	TOTAL COST (thousands)
Regional	EIS - Cultural Resources	2010	200	0	0	0	0	200
Regional	EIS - Water and Land	2010	500	0	0	0	0	500
Regional	EIS - Wildlife and Plants	2010	500	0	0	0	0	500
Regional	Livestock / Agricultural Water Provision Study & Plan	2012	500	0	0	0	0	500
Regional	Range and Farm Management Plan	2012	500	0	0	0	0	500
Grand Total								2,200

Table 18: Agriculture, Grazing, & "Areas of Avoidance" ICIP Costs

4.8 Education

Education is another long-lead item that requires significant investment to bear fruit in the future. While the need for schools might not be as urgent as the need for clean drinking water, education is the best opportunity for successful and satisfying lives for the community's youth – whether they leave the community or choose to stay.

4.8.1 Needs Assessment

Most chapters requested educational facilities for kindergarten through high school students. The population of the chapters fall into three population ranges: small, medium, and large. For each, the educational facility requirements are slightly different. The smaller Chapters have a higher per student cost than the one large chapter – Tuba City. The medium chapters, of course, fall in between. This difference occurs because of the fixed size of certain elements of the educational buildings.

A gymnasium, a school library, administrative area and others are basically the same size regardless of the number of students. Classrooms and cafeterias are driven by the size of the student population. In developing this estimate, a core size was assumed for all schools, and the student-driven elements were added on a square foot per student basis. This number was compared to averages from around the U.S. for comparison and verification.

Other assumptions including the following were used in this analysis:

- Typically 100 square feet is assumed for elementary students, 125 for mid-school, and 150 for high school students.
- The estimated size of the facilities needed for the small Chapters is 38,000 square feet; the medium is 96,000; and the large, 225,000.
- In determining the number of students from each chapter, a capture rate of 80 percent was used. It is assumed that the other 20 percent of eligible students will be home-schooled, attend private school, or go to a boarding school out of the Chapter.
- Normally, a high school drop-out rate of up to 50 percent is calculated into the formula. For this analysis 100 percent graduation was assumed. This conservative approach was taken because of the strong belief expressed by participants that families left the FBFA partly because of the absence of educational opportunities for the children. Many of those families are expected to return when new schools are available.
- While enough funds are being requested to construct stand-alone schools where requested, there are economic as well as educational advantages in consolidating educational facilities. Larger schools allow for more efficient operation and broader curriculum offerings. It is expected that the feasibility study phase of these

projects will examine the regional opportunities for combining student populations into larger schools.

4.8.1.1 Daycare and Headstart Centers

Daycare and Headstart facilities were requested by all nine Chapters. Using traditional population methods, the number of children eligible for Headstart and potential daycare participants was estimated for the three Chapter sizes. It was assumed:

- Daycare and Headstart facilities for small chapters would require 2,000 and 1,000 square feet; medium chapters will need 4,000 and 2,000; and the large chapter, 8,000 and 4,000 square feet.

4.8.1.2 Life Long Learning Centers

All nine Chapters requested some form of community learning center. Suggestions included computer labs, arts and crafts studios, libraries, vocational training, and many other worthwhile activities. These facilities would primarily serve the adult community and should be adaptable to the changing needs and priorities of the community. The importance of adaptability was amply evident by the number of ideas from each community on how to use this type of facility. Rather than try to meet every perceived need, it was decided to designate a budget large enough to construct a facility that could house several of these functions and leave the specifics to the community to decide during the feasibility study. Other assumptions were:

- This type of facility is not strictly driven by population size. There are certain minimum sizes that must be maintained to have a functional building. Based up professional judgment and experience with similar buildings, it was determined that the small chapters would require a 6,000 square foot building; the medium chapters 8,000 square feet; and, the large chapter 15,000.
- This facility does not necessarily need to be a stand-alone building. It could be constructed in conjunction with a multipurpose building, a senior center or even the school facilities. It is expected that these opportunities will be explored during the feasibility study.

4.8.2 Infrastructure & Capital Improvement Projects

Chapter	Education Projects	Sq. Ft.	Description	FBFA (%)	Project Readiness
Bodaway-Gap	Daycare - Bitter Springs	1,300		85	Feasibility Study needed
Bodaway-Gap	Daycare - Cedar Ridge	1,300		85	Feasibility Study needed
Bodaway-Gap	Daycare - Gap	1,300		85	Feasibility Study needed
Cameron	Daycare	4,000		100	Feasibility Study needed
Kaibeto Leupp	Daycare	4,000		28	Feasibility Study needed, 200+ acres withdrawn around community for community, commercial, industrial uses
	Daycare	4000		7	Feasibility Study needed: Records indicate 4,000 SF Pre School may duplicate proposed facility
Tonalea Tuba City	Daycare	4,000		30	Feasibility Study needed
	Daycare	8,000		12	Feasibility Study needed
Leupp	K-12	48,492		7	Feasibility Study needed
	K-12	96,000		85	Feasibility Study needed
Bodaway-Gap	K-12	96,000		100	Feasibility Study needed
Cameron Coalmine Canyon	K-12	38,000		95	Feasibility Study needed
	K-12	96,000		28	Feasibility Study needed: Discrepancies found about facilities and condition in 3 sources examined
Kaibeto					

Chapter	Education Projects	Sq. Ft.	Description	FBFA (%)	Project Readiness
Tolani Lake Tonalea	K-12	38,000		31	Site identified but not withdrawn / Feasibility Study needed: Records indicate existing new and old preschool
	K-12	96,000		30	Feasibility Study needed
Bodaway-Gap	Lifelong Learning Center	8,000	Adult, College Ext	85	Feasibility Study needed
	Lifelong Learning Center	8,000	Adult, College Ext	100	Feasibility Study needed
Cameron	Lifelong Learning Center	6,000	Adult, College Ext	95	Feasibility Study needed
Coalmine Canyon	Lifelong Learning Center	6,000	Adult, College Ext	45	Feasibility Study needed
Coppermine	Lifelong Learning Center	8,000	Adult, College Ext	28	Feasibility Study needed, 200+ acres withdrawn around community for community, commercial, industrial uses
	Lifelong Learning Center	8,000	Multi purpose, Library	7	Feasibility Study needed
Leupp	Lifelong Learning Center	6,000	Adult, College Ext	31	Feasibility Study needed
Tolani Lake	Lifelong Learning Center	8,000	Adult, College Ext	30	Feasibility Study needed
Tonalea	Lifelong Learning Center	15,000	Adult, College Ext	12	Feasibility Study needed
Tuba City	Mid/High School	19,000		45	Feasibility Study needed: Records indicate school(s) at this location / need info whether proposed replaces or adds
Coppermine					

Chapter	Education Projects	Sq. Ft.	Description	FBFA (%)	Project Readiness
Cameron Coalmine Canyon	New Headstart	2,000		100	Feasibility Study needed: Discrepancies found about facilities and condition in 3 sources examined
	New Headstart	1,000		95	Feasibility Study needed
	New Headstart	2,000		28	Feasibility Study needed: Discrepancies found about facilities and condition in 3 sources examined
Kaibeto	New Headstart	1,000		31	Site identified but not withdrawn / Feasibility Study needed: Records indicate new and old preschool
Tolani Lake	New Headstart	2,000		30	Feasibility Study needed
Tonalea	New Headstart	3,000		45	Feasibility Study, Records indicate that a 2,500 SF Headstart and/or daycare facility exist at this location, It is not clear whether this project replaces this facility or is in addition to the facility, this issue should be clarified before proceeding with this project.
Coppermine	New Headstart	2,000		85	Feasibility Study, Land withdrawn for Bitter Springs
Bodaway-Gap					

Table 19: Education Project Descriptions

4.8.3 Cost Estimate Summary

Chapter	Education Projects	Sq. Ft.	Start Year	Planning	A & E Cost	Const. Cost	F,F, &E	Total Cost (thousands)
Bodaway -Gap	Daycare - Bitter Springs	1,300	2013	19	39	389	78	525
Bodaway -Gap	Daycare - Cedar Ridge	1,300	2013	19	39	389	78	525
Bodaway -Gap	Daycare	1,300	2010	19	39	389	78	525
Cameron	Daycare	4,000	2010	60	120	1,196	239	1,615
Kaibeto	Daycare	4,000	2012	60	120	1,196	239	1,615
	Daycare	4,000	2010	60	120	1,196	239	1,615
	Daycare	4,000	2012	60	120	1,196	239	1,615
Leupp Tonalea	Daycare	8,000	2010	120	239	2,392	478	3,229
Tuba City	K-12	48,492	2010	727	1,455	14,548	2,910	19,639
Leupp Bodaway -Gap	K-12	96,000	2015	1,860	3,720	37,200	14,434	57,214
Cameron	K-12	96,000	2014	1,860	3,720	37,200	14,434	57,214
Coalmine Canyon	K-12	38,000	2013	735	1,470	14,700	5,704	22,609

Chapter	Education Projects	Sq. Ft.	Start Year	Planning	A & E Cost	Const. Cost	F,F, &E	Total Cost (thousands)
Kaibeto	K-12	96,000	2012	1,860	3,720	37,200	14,434	57,214
	K-12	38,000	2010	630	1,260	12,600	4,889	19,379
Tolani Lake	K-12	96,000	2011	735	1,470	14,700	5,704	22,609
Tonalea	Lifelong Learning Center	8,000	2012	152	305	3,048	610	4,115
Bodaway-Gap	Lifelong Learning Center	8,000	2012	152	305	3,048	610	4,115
Cameron	Lifelong Learning Center	6,000	2012	114	229	2,286	457	3,086
Coalmine Canyon	Lifelong Learning Center	6,000	2012	114	229	2,286	457	3,086
Coppermine	Lifelong Learning Center	8,000	2012	152	305	3,048	610	4,115
Kaibeto	Lifelong Learning Center	8,000	2010	152	305	3,048	610	4,115
	Lifelong Learning Center	6,000	2017	114	229	2,286	457	3,086
Leupp	Lifelong Learning Center	8,000	2010	152	305	3,048	610	4,115
Tolani Lake	Lifelong Learning Center	15,000	2010	286	572	5,715	1,143	7,715
Tonalea	Lifelong Learning Center							
Tuba City	Lifelong Learning Center							

Chapter	Education Projects	Sq. Ft.	Start Year	Planning	A & E Cost	Const. Cost	F,F, &E	Total Cost (thousands)
Coppermine	Mid/High School	19,000	2012	370	740	7,400	1,480	9,990
	New Headstart	2,000	2013	30	60	598	120	807
Cameron Coalmine Canyon	New Headstart	1,000	2013	15	30	299	60	404
	New Headstart	2,000	2012	30	60	598	120	807
Kaibeto	New Headstart	1,000	2010	15	30	299	60	404
	New Headstart	2,000	2010	30	60	598	120	807
Tolani Lake								
Tonalea								

Coppermine Bodaway-Gap	New Headstart	3,000	2012	45	90	897	179	1,211
	New Headstart	2,000	2010	30	60	598	120	807
Grand Total								319,923

Table 20: Education ICIP Project Costs

4.9 Priority Implementation

The completion of any planning project is the time for decision-making. While a plan lays out a possible course of action, it is up to the people who will be affected by its recommendations to (1) discern their wisdom, (2) assess their own level of motivation to take action, and (3) create the partnerships, policies, and environments through which the plan can succeed. Too often, the plan is the easiest step to achieve and remains the only one accomplished.

While many decisions need to be made by chapters, the former Bennett Freeze Area Task Force, and Navajo Nation Divisions and Departments, there is a general approach that can be applied to thinking strategically about how to implement multiple projects.

The first step is to think about the projects that are project-ready and can be relatively easily and quickly accomplished. These should be prioritized first for funding and staff efforts. Accomplishing these projects helps to show progress, which encourages others to become involved to share in the benefits and proves that it is not foolish to hope for change.

In the FBFA, repairs and upgrades to existing homes are the best candidates for the first project implementation efforts. With some analysis of data collected in the field, repairs can be assessed and completed quickly. In general, this plan recommends beginning with homes inside the FBFA for both repairs and upgrades to water and power service, followed by the same projects for homes in the rest of the chapters.

While repairs are beginning, the power and water assessment can get underway, as it will take longer than assessing repairs but not as long as other studies. Additionally, it makes sense not to upgrade houses for power and water that may not be deemed repairable. IHS has completed many of these assessments, making those homes eligible for immediate assistance with the arrival of funds.

In the meantime, project staff at the relevant departments or chapters should begin feasibility studies for other priority projects. These studies typically take anywhere from six months to two years, depending on their complexity and size. By the time they are complete and generate new capital projects, project managers and staff should be available as shorter-term projects are completed.

In general, FBFA communities identified housing, including power and water improvements, overwhelmingly as the first priority for projects and funding. Water projects and road projects were the next highest priorities and should be phased accordingly. Health and public safety, including access to medical care and emergency response, was the next most-valued project.

The next priorities varied from community to community, person to person, project to project. Individual chapters must balance community priorities carefully. There were many

community facilities that residents care deeply about, including recreational facilities, parks, multipurpose centers, government buildings, and cemeteries. Many residents prioritized economic development as the way to generate funds to invest in further improvements and the means to provide adequate jobs to retain the next generations. Similarly, residents prioritized grazing and agriculture projects to ensure a sustainable, self-sufficient way of life and perpetuate traditional culture. In the same way, other residents prioritized educational projects to sustain and promote the independence and success of the community's youth and residents of all ages.

In deciding the priorities of these other categories, chapters must work with residents, and project staff need to work with chapters to determine the order of projects that makes the best of use time and resources.

4.9.1 Priority Projects: 2010

The following sections include tables with projects prioritized according to the strategic plan described above. These can be matched to project descriptions in the previous Sections for more details. Projects are sorted first by regional and strategic implementation priority, next by project readiness. Those projects not in the top 10 priorities gathered throughout this planning process that also do not have known progress toward implementation do not appear in the following tables.

Note: Projects not appearing in the following priority tables must still be given effort toward progress, planning, decision-making, and implementation in order to move toward area recovery.

The following tables appear as a strategic implementation planning tool for Chapters, project managers, and department and agency staff. The list must be updated as conditions change, more information is gathered, and more input is provided about this plan's ability to meet community goals for area recovery.

Project readiness was assessed at 25 percent if either planning or land withdrawal had taken place, 50 percent if two or more have been accomplished, 75 percent if some design work has been completed. Information was gathered either from the participation process, the chapter Community Land Use Plans, or other planning documents. This table will need to be updated with information not available to the planning team as of August 2008.

Table 19 shows projects estimated to start in 2010, with the arrival of some funding. The first project on this list is the Community Development Corporation. However this entity takes shape, some mechanism for tracking funds, fast-tracking projects, coordinating among various chapters, agencies, and departments needs to be in place so that projects are successful the first time and every time. This entity is to have staff dedicated to area recovery efforts as its main, if not only, priority. Funds are indicated for the first year to jump-start project management efforts; thereafter, each project's cost estimate includes a project management percentage added to the total project cost.

4.9.1.1 Priority Projects and Project Readiness for 2010

Chapter	Category	2010 Priority Projects	FBFA (%)	2010 (\$1000)	2011 (\$1000)	2012 (\$1000)	2013 (\$1000)	2014 (\$1000)	2015 (\$1000)	2015+ (\$1000)	Priority	Project Ready (%)
Regional	Comm Facil.	Community Development Corporation	100	1,000	0	0	0	0	0	0	1	0
Bodaway-Gap	Housing	Repair Residential - FBFA	100	637	1,487	4,400	4,230	86	0	11,880	1	0
Cameron	Housing	Repair Residential - FBFA	100	864	2,016	5,966	5,735	117	0	15,358	1	0
Coalmine Canyon	Housing	Repair Residential - FBFA	100	356	832	4,704	46	0	0	7,575	1	0
Coppermine	Housing	Repair Residential - FBFA	100	238	1,940	1,684	31	0	0	5,753	1	0
Kaibeto	Housing	Repair Residential - FBFA	100	227	1,852	1,608	29	0	0	5,588	1	0
Leupp	Housing	Repair Residential - FBFA	100	43	101	570	6	0	0	2,772	1	0
Tolani Lake	Housing	Repair Residential - FBFA	100	76	1,058	74	10	0	0	3,269	1	0
Tonalea	Housing	Repair Residential - FBFA	100	324	4,536	317	42	0	0	7,078	1	0

Chapter	Category	2010 Priority Projects	FBFA (%)	2010 (\$1000)	2011 (\$1000)	2012 (\$1000)	2013 (\$1000)	2014 (\$1000)	2015 (\$1000)	2015+ (\$1000)	Priority	Project Ready (%)
Tuba City	Housing	Repair Residential - FBFA	100	702	5,733	4,848	136	95	0	12,874	1	0
Bodaway-Gap	Infrast. / Utilities	Unfunded water, wastewater projects - 401 Homes		231	2,906	0	0	0	0	0	2	75
Cameron	Infrast. / Utilities	Unfunded water, wastewater projects -- 309 homes		322	4,062	0	0	0	0	0	2	75
Cameron	Infrast. / Utilities	Unfunded water, wastewater projects - 58 homes		228	2,872	0	0	0	0	1,542	2	75
Coalmine Canyon	Infrast. / Utilities	Unfunded water, wastewater projects - 263 homes		41	512	0	0	0	0	0	2	75
Kaibeto	Infrast. / Utilities	Unfunded water, wastewater projects - 185 homes		156	1,964	0	0	0	0	0	2	75
Kaibeto	Infrast. / Utilities	Unfunded water, wastewater projects - 36 homes		113	1,426	0	0	0	0	0	2	75
Tonalea	Infrast. / Utilities	Unfunded water, wastewater projects		481	6,062	0	0	0	0	0	2	75

Chapter	Category	2010 Priority Projects	FBFA (%)	2010 (\$1000)	2011 (\$1000)	2012 (\$1000)	2013 (\$1000)	2014 (\$1000)	2015 (\$1000)	2015+ (\$1000)	Priority	Project Ready (%)
Tuba City	Infrast. / Utilities	Unfunded water, wastewater projects - 1,372 homes		25	320	0	0	0	0	0	2	75
Coalmine Canyon	Infrast. / Utilities	Active and inactive water and Wastewater projects - 108 homes		99	1,246	0	0	0	0	0	2	50
Bodaway-Gap	Infrast. / Utilities	Active and inactive water and wastewater projects - 134 homes		318	4,004	0	0	0	0	0	2	50
Cameron	Infrast. / Utilities	Active and inactive water and Wastewater projects -- 88 homes		226	2,843	0	0	0	0	0	2	50
Kaibeto	Infrast. / Utilities	Active and inactive water and Wastewater projects - 58 homes		137	1,726	0	0	0	0	0	2	50
Kaibeto	Infrast. / Utilities	Active and inactive water and Wastewater projects - 86 homes		251	3,166	0	0	0	0	0	2	50

Chapter	Category	2010 Priority Projects	FBFA (%)	2010 (\$1000)	2011 (\$1000)	2012 (\$1000)	2013 (\$1000)	2014 (\$1000)	2015 (\$1000)	2015+ (\$1000)	Priority	Project Ready (%)
Tonalea	Infrast. / Utilities	Active and inactive water and Wastewater projects - 18 homes		31	386	0	0	0	0	0	2	50
Tuba City	Infrast. / Utilities	Active and inactive water and Wastewater projects - 137 homes		214	2,698	0	0	0	0	0	2	50
Bodaway-Gap	Housing	Power & Water Upgrades - FBFA	100	279	651	3,682	36	0	0	6,387	2	0
Cameron	Housing	Power & Water Upgrades - FBFA	100	381	889	5,030	49	0	0	7,952	2	0
Coalmine Canyon	Housing	Power & Water Upgrades - FBFA	100	156	365	2,066	20	0	0	4,510	2	0
Coppermine	Housing	Power & Water Upgrades - FBFA	100	102	238	1,347	13	0	0	3,675	2	0
Kaibeto	Housing	Power & Water Upgrades - FBFA	100	102	833	723	13	0	0	3,675	2	0
Leupp	Housing	Power & Water Upgrades - FBFA	100	34	476	33	4	0	0	2,632	2	0
Tolani Lake	Housing	Power & Water Upgrades - FBFA	100	34	79	449	4	0	0	2,632	2	0
Tonalea	Housing	Power & Water Upgrades - FBFA	100	143	2,000	140	18	0	0	4,301	2	0

Chapter	Category	2010 Priority Projects	FBFA (%)	2010 (\$1000)	2011 (\$1000)	2012 (\$1000)	2013 (\$1000)	2014 (\$1000)	2015 (\$1000)	2015+ (\$1000)	Priority	Project Ready (%)
Tuba City	Housing	Power & Water Upgrades - FBFA	100	306	4,287	299	39	0	0	6,805	2	0
Bodaway-Gap	Infrast. / Utilities	Unfunded water, wastewater projects - 401 Homes		231	2,906	0	0	0	0	0	2	75
Cameron	Infrast. / Utilities	Unfunded water, wastewater projects -- 309 homes		322	4,062	0	0	0	0	0	2	75
Cameron	Infrast. / Utilities	Unfunded water, wastewater projects - 58 homes		228	2,872	0	0	0	0	1,542	2	75
Coalmine Canyon	Infrast. / Utilities	Unfunded water, wastewater projects - 263 homes		41	512	0	0	0	0	0	2	75
Kaibeto	Infrast. / Utilities	Unfunded water, wastewater projects - 185 homes		156	1,964	0	0	0	0	0	2	75
Kaibeto	Infrast. / Utilities	Unfunded water, wastewater projects - 36 homes		113	1,426	0	0	0	0	0	2	75
Tonalea	Infrast. / Utilities	Unfunded water, wastewater projects		481	6,062	0	0	0	0	0	2	75

Chapter	Category	2010 Priority Projects	FBFA (%)	2010 (\$1000)	2011 (\$1000)	2012 (\$1000)	2013 (\$1000)	2014 (\$1000)	2015 (\$1000)	2015+ (\$1000)	Priority	Project Ready (%)
Tuba City	Infrast. / Utilities	Unfunded water, wastewater projects - 1,372 homes		25	320	0	0	0	0	0	2	75
Coalmine Canyon	Infrast. / Utilities	Active and inactive water and Wastewater projects - 108 homes		99	1,246	0	0	0	0	0	2	50
Bodaway-Gap	Infrast. / Utilities	Active and inactive water and wastewater projects - 134 homes		318	4,004	0	0	0	0	0	2	50
Cameron	Infrast. / Utilities	Active and inactive water and Wastewater projects -- 88 homes		226	2,843	0	0	0	0	0	2	50
Kaibeto	Infrast. / Utilities	Active and inactive water and Wastewater projects - 58 homes		137	1,726	0	0	0	0	0	2	50
Kaibeto	Infrast. / Utilities	Active and inactive water and Wastewater projects - 86 homes		251	3,166	0	0	0	0	0	2	50

Chapter	Category	2010 Priority Projects	FBFA (%)	2010 (\$1000)	2011 (\$1000)	2012 (\$1000)	2013 (\$1000)	2014 (\$1000)	2015 (\$1000)	2015+ (\$1000)	Priority	Project Ready (%)
Tonalea	Infrast. / Utilities	Active and inactive water and Wastewater projects - 18 homes		31	386	0	0	0	0	0	2	50
Tuba City	Infrast. / Utilities	Active and inactive water and Wastewater projects - 137 homes		214	2,698	0	0	0	0	0	2	50
Bodaway-Gap	Housing	Repair Residential	0	227	529	2,994	29	0	0	5,488	3	0
Coalmine Canyon	Housing	Repair Residential	0	43	101	570	6	0	0	2,672	3	0
Coppermine	Housing	Repair Residential	0	594	4,851	4,102	115	81	0	11,118	3	0
Kaibeto	Housing	Repair Residential	0	1,199	7,319	5,617	5,459	325	170	20,392	3	0
Leupp	Housing	Repair Residential	0	2,030	12,397	9,513	9,247	550	289	33,143	3	0
Tolani Lake	Housing	Repair Residential	0	335	4,687	327	43	0	0	7,144	3	0
Tonalea	Housing	Repair Residential	0	1,577	9,627	7,388	7,181	427	224	26,188	3	0
Tuba City	Housing	Repair Residential	0	10,346	63,171	48,475	47,118	2,805	1,471	160,655	3	0
Coalmine Canyon	Housing	Power & Water Upgrades	0	20	48	269	3	0	0	2,373	4	50
Bodaway-Gap	Housing	Power & Water Upgrades	0	102	238	1,347	13	0	0	3,575	4	0
Coppermine	Housing	Power & Water Upgrades	0	265	619	3,503	34	0	0	6,079	4	0

Chapter	Category	2010 Priority Projects	FBFA (%)	2010 (\$1000)	2011 (\$1000)	2012 (\$1000)	2013 (\$1000)	2014 (\$1000)	2015 (\$1000)	2015+ (\$1000)	Priority	Project Ready (%)
Kaibeto	Housing	Power & Water Upgrades	0	531	2,786	2,043	3,523	72	0	10,148	4	0
Leupp	Housing	Power & Water Upgrades	0	898	5,484	4,208	4,090	243	128	15,781	4	0
Tolani Lake	Housing	Power & Water Upgrades	0	150	2,096	146	19	0	0	4,305	4	0
Tonalea	Housing	Power & Water Upgrades	0	694	5,668	4,793	134	94	0	12,651	4	0
Tuba City	Housing	Power & Water Upgrades	0	4,559	27,833	21,358	20,761	1,236	648	71,910	4	0
Bodaway-Gap	Housing	New Scattered Residential - FBFA	100	0	8,267	18,283	38,899	37,710	39,564	122,832	5	0
Cameron	Housing	New Scattered Residential - FBFA	100	0	11,574	25,597	54,459	52,794	55,390	171,121	5	0
Coalmine Canyon	Housing	New Scattered Residential - FBFA	100	0	4,703	10,401	22,129	21,453	22,508	70,788	5	0
Coppermine	Housing	New Scattered Residential - FBFA	100	0	2,792	6,176	13,139	12,738	13,364	42,887	5	0
Kaibeto	Housing	New Scattered Residential - FBFA	100	0	2,609	5,769	12,275	11,900	12,485	40,205	5	0
Leupp	Housing	New Scattered Residential - FBFA	100	0	845	1,869	3,976	3,855	4,044	14,451	5	0
Tolani Lake	Housing	New Scattered Residential - FBFA	100	0	845	1,967	11,203	109	0	14,451	5	0

Chapter	Category	2010 Priority Projects	FBFA (%)	2010 (\$1000)	2011 (\$1000)	2012 (\$1000)	2013 (\$1000)	2014 (\$1000)	2015 (\$1000)	2015+ (\$1000)	Priority	Project Ready (%)
Tonalea	Housing	New Scattered Residential - FBFA	100	0	3,784	8,370	17,807	17,263	18,112	57,374	5	0
Tuba City	Housing	New Scattered Residential - FBFA	100	0	7,752	17,146	36,479	35,363	37,103	115,321	5	0
Bodaway-Gap	Housing	New Scattered Residential	0	0	1,433	3,336	9,938	9,527	194	22,935	6	0
Coalmine Canyon	Housing	New Scattered Residential	0	0	257	599	3,410	33	0	5,766	6	0
Coppermine	Housing	New Scattered Residential	0	0	3,454	7,638	16,251	15,754	16,529	52,445	6	0
Kaibeto	Housing	New Scattered Residential	0	0	6,724	14,870	31,638	30,671	32,179	100,198	6	0
Leupp	Housing	New Scattered Residential	0	0	10,876	24,053	51,174	49,609	52,049	160,827	6	0
Tolani Lake	Housing	New Scattered Residential	0	0	1,911	4,448	25,329	247	0	29,910	6	0
Tonalea	Housing	New Scattered Residential	0	0	8,855	19,583	41,666	40,391	42,378	131,317	6	0
Tuba City	Housing	New Scattered Residential	0	0	55,994	123,839	263,479	255,420	267,982	819,703	6	0
Bodaway-Gap	Housing	New Cluster Residential - FBFA	100	2,706	6,314	18,687	17,962	367	0	43,653	7	50
Tolani Lake	Housing	New Cluster Residential - FBFA	100	0	296	689	3,924	38	0	6,482	7	50
Cameron	Housing	New Cluster Residential - FBFA	100	0	3,996	9,302	27,712	26,566	541	60,484	7	25

Chapter	Category	2010 Priority Projects	FBFA (%)	2010 (\$1000)	2011 (\$1000)	2012 (\$1000)	2013 (\$1000)	2014 (\$1000)	2015 (\$1000)	2015+ (\$1000)	Priority	Project Ready (%)
Coalmine Canyon	Housing	New Cluster Residential - FBFA	100	0	1,628	3,790	11,290	10,823	220	25,907	7	25
Coppermine	Housing	New Cluster Residential - FBFA	100	0	947	2,205	6,569	6,297	128	15,966	7	25
Tuba City	Housing	New Cluster Residential - FBFA	100	0	2,664	5,891	12,534	12,151	12,748	41,034	7	25
Kaibeto	Housing	New Cluster Residential - FBFA	100	0	888	2,067	6,158	5,904	120	15,076	7	0
Leupp	Housing	New Cluster Residential - FBFA	100	0	296	689	3,924	38	0	6,432	7	0
Tonalea	Housing	New Cluster Residential - FBFA	100	0	1,302	2,880	6,128	5,940	6,233	21,128	7	0
Tolani Lake	Housing	New Cluster Residential	0	0	651	1,516	8,632	84	0	11,569	8	50
Coalmine Canyon	Housing	New Cluster Residential	0	0	89	207	1,177	11	0	3,332	8	25
Coppermine	Housing	New Cluster Residential	0	0	1,184	2,756	8,211	7,871	160	19,324	8	25
Kaibeto	Housing	New Cluster Residential	0	0	2,338	5,171	11,002	10,666	11,190	36,180	8	25
Tuba City	Housing	New Cluster Residential	0	0	19,327	42,745	90,943	88,162	92,497	284,272	8	25
Bodaway-Gap	Housing	New Cluster Residential	0	479	1,118	6,325	62	0	0	9,358	8	0
Leupp	Housing	New Cluster Residential	0	0	3,759	8,313	17,687	17,146	17,990	56,901	8	0

Chapter	Category	2010 Priority Projects	FBFA (%)	2010 (\$1000)	2011 (\$1000)	2012 (\$1000)	2013 (\$1000)	2014 (\$1000)	2015 (\$1000)	2015+ (\$1000)	Priority	Project Ready (%)
Tonalea	Housing	New Cluster Residential	0	0	3,049	6,742	14,345	13,906	14,590	46,528	8	0
Regional	Ag / Grazing / OS	Range and Farm Management Plan		500	0	0	0	0	0	0	9	0
Regional	Ag / Grazing / OS	Livestock / Agricultural Water Provision Study & Plan		500	0	0	0	0	0	0	9	0
Regional	Transp.	Route N6331/N6330, Project No. N6731 (1)1,2,3		240	3,024	0	0	0	0	0	10	75
Regional	Transp.	Route N609 Project No. N609(2)2,4		226	2,848	0	0	0	0	0	10	50
Regional	Transp.	Route N619, Project No. N619(1)2,4		396	4,990	0	0	0	0	0	10	50
Regional	Transp.	Route N20, Project No. N20(3)2,4		0	0	0	0	0	0	0	10	50
Regional	Transp.	Route N101, Project No. N101(8)2&4		60	126	1,584	0	0	0	0	10	25
Regional	Transp.	Route N101, Project No. N101(9)2&4		60	126	1,584	0	0	0	490	10	25
Regional	Transp.	Shuttle Vans		480	0	0	0	0	0	0	10	0
Regional	Transp.	Paved Road Study		300	0	0	0	0	0	0	10	0

Chapter	Category	2010 Priority Projects	FBFA (%)	2010 (\$1000)	2011 (\$1000)	2012 (\$1000)	2013 (\$1000)	2014 (\$1000)	2015 (\$1000)	2015+ (\$1000)	Priority	Project Ready (%)
Regional	Transp.	Traffic Safety Improvements Study		500	0	0	0	0	0	0	10	0
Regional	Transp.	Unpaved Road Study		300	0	0	0	0	0	0	10	0
Tolani Lake	Education	New Headstart	31	27	63	345	3	0	0	0		25

Table 21: Priority Projects & Project-Readiness

4.9.1.2 Other Projects for Implementation

The following table shows the six-year spread of funding for other projects, sorted by Chapter, then Category, and finally by Project.

Chapter	Category	Other 2010 Projects	FBFA (%)	2010 (\$1000)	2011 (\$1000)	2012 (\$1000)	2013 (\$1000)	2014 (\$1000)	2015 (\$1000)	2015+ (\$1000)
Bodaway-Gap	Comm Fac / P &R	Cemetery / Veterans Cemetery	85	25	0	0	0	0	0	2,935
Bodaway-Gap	Comm Fac / P &R	Park & ballfields	85	16	115	0	0	0	0	0
Bodaway-Gap	Comm Fac / P &R	Recreation / Wellness Center	85	970	2,262	6,221	8,435	131	0	0
Bodaway-Gap	Health / Pub Safety	Fire Stations	85	451	1,053	7,444	58	0	0	0
Bodaway-Gap	Health / Pub Safety	Police Station	85	174	405	2,863	22	0	740	0
Bodaway-Gap	Housing	New Multifamily - FBFA	100	350	4,899	342	45	0	0	7,475
Bodaway-Gap	Education	K-12	85	0	0	0	0	0	6,075	77,941
Cameron	Comm Fac / P &R	Chapter House, Community Center	100	320	748	4,699	41	0	0	0
Cameron	Comm Fac / P &R	Multipurpose Center	100	192	449	2,820	25	0	0	0

Chapter	Category	Other 2010 Projects	FBFA (%)	2010 (\$1000)	2011 (\$1000)	2012 (\$1000)	2013 (\$1000)	2014 (\$1000)	2015 (\$1000)	2015+ (\$1000)
Cameron	Comm Fac / P &R	Sports Complex - indoor	100	970	2,262	8,117	6,436	131	0	0
Cameron	Comm Fac / P &R	Veterans Center	100	64	150	940	8	0	0	0
Cameron	Health / Pub Safety	New Health Care Facilities	100	2,975	6,593	21,934	13,546	14,247	423	0
Cameron	Health / Pub Safety	Fire Stations	100	467	1,090	7,712	60	0	0	0
Cameron	Health / Pub Safety	Police Station	100	174	405	2,863	22	0	0	0
Cameron	Housing	New Multifamily - FBFA	100	350	4,899	342	45	0	0	7,475
Coalmine Canyon	Comm Fac / P &R	Multipurpose Center / Museum	95	57	299	1,880	17	0	0	0
Coalmine Canyon	Comm Fac / P &R	Park & ballfields	95	90	210	1,155	12	0	0	0
Coalmine Canyon	Health / Pub Safety	Police and Fire Station	95	564	1,316	5,755	3,743	76	0	0
Coalmine Canyon	Housing	New Multifamily - FBFA	100	175	2,449	171	23	0	0	4,793
Coppermine	Housing	New Group Residential	45	57	133	753	7	0	0	2,930

Chapter	Category	Other 2010 Projects	FBFA (%)	2010 (\$1000)	2011 (\$1000)	2012 (\$1000)	2013 (\$1000)	2014 (\$1000)	2015 (\$1000)	2015+ (\$1000)
Coppermine	Housing	New Multifamily	0	140	1,960	137	18	0	0	4,156
Coppermine	Housing	New Multifamily - FBFA	100	140	1,960	137	18	0	0	4,256
Coppermine	Education	New Headstart	45	0	0	89	208	1,149	11	0
Kaibeto	Health / Pub Safety	Clinic	28	430	1,003	4,125	2,854	58	0	0
Kaibeto	Housing	New Multifamily - FBFA	100	105	1,470	103	14	0	0	3,720
Leupp	Comm Fac / P &R	Animal Shelter	7	80	187	1,175	10	0	0	0
Leupp	Comm Fac / P &R	Post Office	7	160	374	2,350	21	0	0	0
Leupp	Education	K-12		1,309	2,902	5,654	5,963	6,271	186	0
Leupp				1,844	4,088	13,598	8,398	8,832	262	
	Health / Pub Safety	New Health Care Facilities	7							0
Leupp	Health / Pub Safety	Fire Stations	7	45	105	742	6	0	0	0
Leupp	Health / Pub Safety	Police Station	7	174	405	2,863	22	0	0	0
Leupp	Housing	New Elder Living	7	1,971	4,369	9,235	8,976	9,440	280	32,239
Leupp	Housing	New Group Residential	7	114	266	1,506	15	0	0	3,767

Chapter	Category	Other 2010 Projects	FBFA (%)	2010 (\$1000)	2011 (\$1000)	2012 (\$1000)	2013 (\$1000)	2014 (\$1000)	2015 (\$1000)	2015+ (\$1000)
Leupp	Housing	New Multifamily	0	525	4,287	417	3,484	71	0	10,058
Leupp	Housing	New Multifamily - FBFA	100	35	490	34	5	0	0	2,647
Leupp	Education	Daycare	7	108	251	1,381	14	0	0	0
Leupp	Education	Lifelong Learning Center	7	274	640	3,520	35	0	0	0
Tolani Lake	Comm Fac / P &R	Chapter House - renovation	31	37	87	546	5	0	0	0
Tolani Lake	Comm Fac / P &R	Livestock Facility Study	31	50	0	0	0	0	0	0
Tolani Lake	Comm Fac / P &R	Multipurpose Center	31	192	449	2,820	25	0	0	0
Tolani Lake	Comm Fac / P &R	Outdoor Recreation Center	31	38	173	0	0	0	0	15,086
Tolani Lake	Health / Pub Safety	Clinic	31	329	767	5,224	42	0	0	0
Tolani Lake	Health / Pub Safety	Police Station	31	0	0	0	0	0	222	4,215
Tolani Lake	Housing	New Group Residential	31	57	133	753	7	0	0	2,916
Tolani Lake	Housing	New Multifamily	0	105	1,470	103	14	0	0	3,620

Chapter	Category	Other 2010 Projects	FBFA (%)	2010 (\$1000)	2011 (\$1000)	2012 (\$1000)	2013 (\$1000)	2014 (\$1000)	2015 (\$1000)	2015+ (\$1000)
Tolani Lake Tonalea	Housing	New Multifamily - FBFA	100	35	490	34	5	0	0	2,647
Tonalea	Health / Pub Safety	Fire Stations	30	45	105	743	6	0	0	0
Tonalea	Health / Pub Safety	Police Station	30	173	405	2,863	22	0	0	0
Tonalea	Housing	New Elder Living	30	1,972	4,372	9,241	8,982	9,447	281	32,283
Tonalea	Housing	New Group Residential	30	57	133	753	7	0	0	2,915
Tonalea	Housing	New Multifamily	0	420	3,429	334	2,787	57	0	8,449
Tonalea	Housing	New Multifamily - FBFA	100	175	2,449	171	23	0	0	4,793
Tonalea	Education	Lifelong Learning Center	30	274	640	3,520	35	0	0	0
Tonalea	Education	New Headstart	30	0	56	132	728	7	0	0
Tuba City	Comm Fac / P &R	Animal Shelter - Expand/upgrade	12	80	187	1,175	10	0	0	0

Chapter	Category	Other 2010 Projects	FBFA (%)	2010 (\$1000)	2011 (\$1000)	2012 (\$1000)	2013 (\$1000)	2014 (\$1000)	2015 (\$1000)	2015+ (\$1000)
Tuba City	Comm Fac / P &R	Animal Shelter - New boarding / vet clinic	12	80	187	1,175	10	0	0	0
Tuba City	Comm Fac / P &R	Cemetery / Veterans Cemetery	12	50	0	0	0	0	0	0
Tuba City	Comm Fac / P &R	Chapter House - renovation	12	72	168	1,056	9	0	0	0
Tuba City	Comm Fac / P &R	Chapter House - repair - parking	12	10	0	0	0	0	0	0
Tuba City	Comm Fac / P &R	Multipurpose Center	12	50	0	0	0	0	0	0
Tuba City	Comm Fac / P &R	Park & ballfields	12	5	10	102	22	0	0	0
Tuba City	Comm Fac / P &R	Recreation Center	12	2,334	5,174	14,359	10,630	11,180	332	0
Tuba City Tuba City	Comm Fac / P &R	Veterans center - parking	12	10	0	0	0	0	0	0
	Health / Pub Safety	Fire Stations	12	900	1,995	7,186	4,099	4,311	128	0
Tuba City	Health / Pub Safety	Police Station	12	347	810	5,726	45	0	0	0

Chapter	Category	Other 2010 Projects	FBFA (%)	2010 (\$1000)	2011 (\$1000)	2012 (\$1000)	2013 (\$1000)	2014 (\$1000)	2015 (\$1000)	2015+ (\$1000)
Tuba City	Housing	New Elder Living	12	6,570	14,564	30,782	29,920	31,468	934	102,762
Tuba City	Housing	New Group Residential	12	456	1,065	3,152	3,030	62	0	9,021
Tuba City	Housing	New Multifamily	0	2,659	16,237	12,460	12,111	721	378	42,787
Tuba City	Housing	New Multifamily - FBFA	100	385	5,389	376	50	0	0	8,012
Tuba City	Education	Daycare	12	215	502	2,762	28	0	0	0
Tuba City	Education	Lifelong Learning Center	12	514	1,200	3,363	3,414	70	0	0
Regional	Ag / Grazing / OS	EIS - Cultural Resources		200	0	0	0	0	0	0
Regional	Ag / Grazing / OS	EIS - Water and Land		500	0	0	0	0	0	0
Regional	Ag / Grazing / OS	EIS - Wildlife and Plants		500	0	0	0	0	0	0
Regional	Comm Fac / P &R	Chapter Boundary Study	100	0	0	0	0	0	0	0

Chapter	Category	Other 2010 Projects	FBFA (%)	2010 (\$1000)	2011 (\$1000)	2012 (\$1000)	2013 (\$1000)	2014 (\$1000)	2015 (\$1000)	2015+ (\$1000)
Regional	Infrast. / Utilities	Solid Waste / Recycling Study		200	0	0	0	0	0	0
Regional	Infrast. / Utilities	Telephone, cell towers, internet		200	0	0	0	0	0	1,853
Regional B	Econ. Dev.	Business Center - Gap		200	0	0	0	0	0	0
Regional B	Econ. Dev.	Business Center - Navajo Springs		200	0	0	0	0	0	0
Regional B, C, CC	Econ. Dev.	Business Center - Junction		200	0	0	0	0	0	0
Regional B, C, CC	Econ. Dev.	Rural Development - Hidden Springs		200	0	0	0	0	0	0
Regional C	Econ. Dev.	Business Center - Cameron		200	0	0	0	0	0	0
Regional C	Econ. Dev.	Business Center - Dzil Lichii		200	0	0	0	0	0	0
Regional C	Econ. Dev.	Business Center - First Overlook		200	0	0	0	0	0	0

Chapter	Category	Other 2010 Projects	FBFA (%)	2010 (\$1000)	2011 (\$1000)	2012 (\$1000)	2013 (\$1000)	2014 (\$1000)	2015 (\$1000)	2015+ (\$1000)
Regional C	Econ. Dev.	Business Center - To Bee Hwiisgani		200	0	0	0	0	0	0
Regional C	Econ. Dev.	Business Center - Western Diné Gateway		200	0	0	0	0	0	7,586
Regional C	Econ. Dev.	Rural Development - Wind farm		200	0	0	0	0	0	10,678
Regional C	Econ. Dev.	Tourism Development - Little Colorado River Gorge		200	0	0	0	0	0	0
Regional C	Econ. Dev.	Tourism Development - Pendleton Wool		200	0	0	0	0	0	0
Regional C	Econ. Dev.	Tourism Development - Vendor's Plaza		200	0	0	0	0	0	0

Chapter	Category	Other 2010 Projects	FBFA (%)	2010 (\$1000)	2011 (\$1000)	2012 (\$1000)	2013 (\$1000)	2014 (\$1000)	2015 (\$1000)	2015+ (\$1000)
Regional C CC	Econ. Dev.	Business Center - Little Colorado		200	0	0	0	0	0	0
Regional CC	Econ. Dev.	Business Center - Rifle Range		200	0	0	0	0	0	0
Regional CM	Econ. Dev.	Business Center - Coppermine		200	0	0	0	0	0	0
Regional L	Econ. Dev.	Business Center - Leupp		200	0	0	0	0	0	0
Regional L	Econ. Dev.	Tourism Development - Leupp Casino & Gas Station		200	0	0	0	0	0	0
Regional TC	Econ. Dev.	Business Center - Moenave / Dinosaur Tracks		200	0	0	0	0	0	0

Table 22: Other Projects for Implementation

4.9.2 Priority Projects: 2011

4.9.2.1 Priority Projects & Project Readiness

Chapter	Category	20 11 Priority Projects	FBFA (%)	2010 (\$1000)	2011 (\$1000)	2012 (\$1000)	2013 (\$1000)	2014 (\$1000)	2015 (\$1000)	2015+ (\$1000)	Priority	Project Ready (%)
Regional L, TL	Infrast. / Utilities	Pipeline - C-aquifer Leupp to Dilcon	22	0	7,613	19,140	20,184	21,228	22,272	0	9	50
Regional B, CM, C	Infrast. / Utilities	Western Navajo Pipeline	3	0	27,300	68,640	72,384	76,128	79,872	0	9	50
Regional Regional	Transp.	Route N20, Project No. N20(3)2, 5		0	803	0	21,284	0	0	0	10	25
	Health / Pub Safety	TC Regional Hospital - Renovate & Expand		0	10,244	19,318	43,006	143,627	88,250	95,138		50
Kaibeto	Housing	New Elder Living	28	0	1,150	2,168	4,827	10,242	9,905	32,287		25
Kaibeto	Housing	New Group Residenti al	28	0	67	126	294	1,671	16	3,815		25

4.9.2.2 Other Projects for Implementation

Chapter	Category	2011 Other Projects	FBFA (%)	2010 (\$1000)	2011 (\$1000)	2012 (\$1000)	2013 (\$1000)	2014 (\$1000)	2015 (\$1000)	2015+ (\$1000)
Coalmine Canyon	Comm Fac / P &R	Motorcross track	95	0	53	0	0	0	0	0
Coalmine Canyon	Comm Fac / P &R	Recreational Trails Study	95	0	53	0	0	0	0	23,316
Coppermine	Comm Fac / P &R	Recreational Trails Study	45	0	53	0	0	0	0	0
Tolani Lake	Comm Fac / P &R	Post Office	31	0	168	392	2,478	22	342	0
Tolani Lake	Comm Fac / P &R	Recreation Center	31	0	1,018	2,252	6,290	4,644	4,872	0
Tolani Lake	Comm Fac / P &R	Veterans Center	31	0	37	70	165	1,042	9	0
Tonalea	Education	K-12	30	0	772	2,063	5,163	6,505	6,825	7,547
Tuba City	Comm Fac / P &R	Rodeo Center Study	12	0	53	0	0	0	0	0

4.9.3 Priority Projects: 2012

4.9.3.1 Priority Projects & Project Readiness

Chapter	Category	2012 Priority Projects	FBFA (%)	2010 (\$1000)	2011 (\$1000)	2012 (\$1000)	2013 (\$1000)	2014 (\$1000)	2015 (\$1000)	2015+ (\$1000)	Priority	Project Ready (%)
Kaibeto	Education	K-12	28	0	0	5,221	13,066	16,462	17,272	19,099		25
Kaibeto		Lifelong Learning Center	28									
Kaibeto	Education			0	0	302	707	3,904	39	0		25
Kaibeto	Health / Pub Safety	Urgent Care	28	0	0	25	61	419	3	0		25

Table 23: Priority Projects 2012

4.9.3.2 Other Projects for Implementation

Chapter	Category	2012 Other Projects	FBFA (%)	2010 (\$1000)	2011 (\$1000)	2012 (\$1000)	2013 (\$1000)	2014 (\$1000)	2015 (\$1000)	2015+ (\$1000)
Bodaway-Gap	Comm Fac / P &R	Animal Shelter - Bitter Springs	85	0	0	88	206	1,303	11	0
Bodaway-Gap	Comm Fac / P &R	Animal Shelter - Gap	85	0	0	88	206	1,303	11	0
Bodaway-Gap	Comm Fac / P &R	Multipurpose Center	85	0	0	211	496	3,127	27	13
Bodaway-Gap	Comm Fac / P &R	Picnic ground	85	0	0	17	127	0	0	0
Bodaway-Gap	Comm Fac / P &R	Rodeo Center and trail rides	85	0	0	55	0	0	0	0
Bodaway-Gap	Comm Fac / P &R	Skate Parks	85	0	0	55	0	0	0	0
Bodaway-Gap	Education	Lifelong Learning Center	85	0	0	302	707	3,904	39	0
Cameron	Comm Fac / P &R	Animal Shelter	100	0	0	88	206	1,303	11	0

Chapter	Category	2012 Other Projects	FBFA (%)	2010 (\$1000)	2011 (\$1000)	2012 (\$1000)	2013 (\$1000)	2014 (\$1000)	2015 (\$1000)	2015+ (\$1000)
Cameron	Comm Fac / P &R	Park & Ballfields	100	0	0	9	22	119	1	0
Cameron	Comm Fac / P &R	Propane Station	100	0	0	50	0	0	0	0
Cameron	Comm Fac / P &R	Recreational Trails Study	100	0	0	53	0	0	0	0
Cameron	Education	Lifelong Learning Center	100	0	0	302	707	3,904	39	0
Coalmine Canyon	Education	Lifelong Learning Center	95	0	0	226	530	2,928	29	0
Coppermine	Comm Fac / P &R	Livestock Facility Study	45	0	0	55	0	0	0	432
Coppermine	Comm Fac / P &R	Multipurpose Center	45	0	0	211	496	3,127	27	537
Coppermine	Comm Fac / P &R	Post Office	45	0	0	176	413	2,606	23	1,256
Coppermine	Comm Fac / P &R	Veterans Center	45	0	0	70	165	1,042	9	0
Coppermine	Education	Lifelong Learning Center	45	0	0	226	530	2,928	29	0
Coppermine	Education	Mid/High School	45	0	0	733	1,717	4,830	4,878	99
Coppermine	Health / Pub Safety	Clinic	45	0	0	362	847	5,793	47	0
Coppermine	Health / Pub Safety	Fire Stations	45	0	0	50	116	824	6	0
Coppermine	Housing	New Elder Living	45	0	0	723	1,694	5,032	4,812	12,131
Kaibeto	Comm Fac / P &R	Skate Park / Playground	28	0	0	55	0	0	0	378
Leupp	Comm Fac / P &R	Recreation Center	7	0	0	1,067	2,499	9,003	7,102	2,741
Tolani Lake	Comm Fac / P &R	Playground	31	0	0	26	119	0	0	0
Tolani Lake	Comm Fac / P &R	Recreational Trails Study	31	0	0	55	0	0	0	0
Tonalea	Comm Fac / P &R	Animal Shelter	30	0	0	88	206	1,303	11	0
Tonalea	Comm Fac / P &R	Multipurpose Center - renovation	30	0	0	116	273	1,720	15	0
Tonalea	Comm Fac / P &R	Park & ballfields	30	0	0	9	22	119	1	0
Tonalea	Comm Fac / P &R	Recreation Center	30	0	0	1,067	2,374	6,615	4,872	0
Tonalea	Comm Fac / P &R	Veterans Center	30	0	0	70	165	1,042	9	0
Tonalea	Education	Daycare	30	0	0	118	277	1,532	15	0
Tonalea	Health / Pub Safety	Clinic	30	0	0	473	1,108	4,575	3,149	64
Tuba City	Comm Fac / P &R	Agriculture Study	12	0	0	55	0	0	0	0
Tuba City	Comm Fac / P &R	Campground & RV Park	12	0	0	55	0	0	0	0

Chapter	Category	2012 Other Projects	FBFA (%)	2010 (\$1000)	2011 (\$1000)	2012 (\$1000)	2013 (\$1000)	2014 (\$1000)	2015 (\$1000)	2015+ (\$1000)
Tuba City	Comm Fac / P &R	Livestock Facility Study	12	0	0	55	0	0	0	0
Tuba City	Comm Fac / P &R	Recreational Trails Study	12	0	0	55	0	0	0	0
Tuba City	Comm Fac / P &R	Recreational Trails Study	12	0	0	55	0	0	0	0
Tuba City	Comm Fac / P &R	Recreational Trails Study	12	0	0	55	0	0	0	0
Tuba City	Comm Fac / P &R	Youth Center	12	0	0	211	496	3,127	27	0

Table 24: Other Projects for Implementation in 2012

4.9.4 Priority Project: 2013

4.9.4.1 Priority Projects & Project Readiness

Chapter	Category	2013 Priority Projects	FBFA (%)	2010 (\$1000)	2011 (\$1000)	2012 (\$1000)	2013 (\$1000)	2014 (\$1000)	2015 (\$1000)	2015+ (\$1000)	Project Readiness
Kaibeto	Education	K-12	28	0	0	5,221	13,066	16,462	17,272	19,099	25
Kaibeto	Comm Fac / P &R	Recreation Center	28	0	0	0	1,125	2,629	9,446	0	25

Figure 33: Priority Projects for 2013

4.9.4.2 Other Projects for Implementation

Chapter	Category	2013 Other Projects	FBFA (%)	2010 (\$1000)	2011 (\$1000)	2012 (\$1000)	2013 (\$1000)	2014 (\$1000)	2015 (\$1000)	2015+ (\$1000)
Bodaway-Gap	Education	Daycare - Bitter Springs	85	0	0	0	41	95	522	5
Bodaway-Gap	Education	Daycare - Cedar Ridge	85	0	0	0	41	95	522	5
Coalmine Canyon	Education	New Headstart	95	0	0	0	31	73	402	4

Figure 34: Other Projects for Implementation in 2013

4.9.5 Priority Project: 2014

Chapter	Category	2014 Projects	2010 (\$1000)	2011 (\$1000)	2012 (\$1000)	2013 (\$1000)	2014 (\$1000)	2015 (\$1000)	2015+ (\$1000)	Priority	Project Ready (%)
Regional	Transp.	Route N101, Project No. N101(9)2&4	0	0	0	0	214	448	0	10	25

4.9.6 Priority Projects: 2015

Chapter	Category	2015 Projects	FBFA (%)	2010 (\$1000)	2011 (\$1000)	2012 (\$1000)	2013 (\$1000)	2014 (\$1000)	2015 (\$1000)	2015+ (\$1000)	Priority	Project Ready (%)
Regional	Transp.	Route N20, Project No. N20(3)2,6		0	0	0	0	0	27,402	0	10	25

4.9.6 Priority Projects: Projects Starting Past 2015 or Needing More Information

4.9.6.1 Priority Project: 2015+

Chapter	Category	2011 Priority Projects	FBFA (%)	2010 (\$1000)	2011 (\$1000)	2012 (\$1000)	2013 (\$1000)	2014 (\$1000)	2015 (\$1000)	2015+ (\$1000)	Project Ready (%)
Bodaway-Gap	Comm Fac / P & R	Church land	85	0	0	0	0	0	0	0	25

4.9.6.2 Projects Needing More Information

Chapter	Category	2013 Other Projects	FBFA (%)	2010 (\$1000)	2011 (\$1000)	2012 (\$1000)	2013 (\$1000)	2014 (\$1000)	2015 (\$1000)	2015+ (\$1000)
Coalmine Canyon	Comm Fac / P &R	Animal Shelter Van	95	0	0	0	0	0	0	64
		Chapter House - equipment	28	0	0	0	0	0	0	0
Coppermine	Comm Fac / P &R	Family Farm Study	45	0	0	0	0	0	0	185

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5.0 Governance and Policy Issues

There are many issues that arose during the course of this accelerated planning process that either could not be addressed within the short timeframe or fell outside of this project's scope and authority. These were important questions raised by individuals, local chapter officials, Council delegates, and agency and department staff.

These are categorized and summarized below for the convenience of those who ultimately need to wrestle with these issues and make decisions and recommendations, but they are also captured here in this resource document for residents, local leaders, and agency staff to aid them in holding responsible parties accountable for making decisions and implementing procedures in a timely fashion, so as not to further delay much-needed development in the FBFA.

5.1 Sacred Lands, Corridors, & Historic Preservation

5.1.1 Navajo-Hopi Secret Compact Provisions to Protect Sacred Lands, Corridors, Species

As noted in Section 2.1.3.2, the Intergovernmental Compact signed by the Navajo Nation and Hopi Tribe to resolve the FBFA dispute contains maps that are not able to be shared with the communities about the sacred and cultural sites that are to be protected from development in the future.

While this privacy does help protect the areas from unwanted visitors, it does not help communities protect and remain stewards of these important cultural resources. The procedures whereby development projects are reviewed for compliance with this compact are also not specified in the agreement, although it is assumed that the Historic Preservation Department will have jurisdiction and follow their own procedures as they would for any development proposed for a specific site. This uncertainty about the process and procedures may cause additional delays for FBFA projects, particularly for scattered site housing, which is most likely to impact "areas of avoidance."

5.1.2 Easily Shared Information Needed for Historic Preservation Department

While keeping the location of sites confidential does help to protect them, there is a general loss of knowledge of these sites at the local level. Participants in community workshops throughout the FBFA in the summer of 2008 explained that knowledge of local sacred sites is held by elderly and traditional residents. This knowledge is not being passed on to other generations.

At the chapter level, the Community Land Use Planning Committees (CLUPC), charged with determining the status of land and identifying sites for new development,

are often planning without the benefit of knowledge of existing cultural resources. In order to receive input from HPD, they must submit proposed locations for projects one by one to have them cleared for development purposes.

5.1.3 Preservation Policies Needed in Chapter Plans

Chapters need to develop their own policies, procedures, and training for the preservation of open space, cultural resources, and general land management. Policies need to be included in the Community Land Use Plans, and roles and responsibilities within the chapter also need to be clearly assigned.

5.1.4 Sharing Local and Generational Knowledge

In addition, chapters and community leaders can work to foster intergenerational training, field trips, and public information sessions in order to ensure that knowledge of these sites is shared throughout the community and through time, particularly in those chapters that do not want to have a mapped inventory of their cultural resources.

For those who do, there are several ways to generate these maps, whether through hired consultants, partnerships with university geography, archaeology, or biology departments, internships with local residents with such knowledge, or a community effort over time.

In addition to the physical and economic effects of the former Bennett Freeze, residents have experienced deep personal and generational trauma, the impact of which is felt daily. Many elderly residents need to share their stories and be listened to, whether by counselors trained in Navajo culture and religion, other community members, and especially youth.

Many of the lasting impacts of the freeze cannot be solved with funds for building projects. In fact, additional development without an equal effort to strengthen and celebrate local culture and family values can cause more harm to these already hurting communities. Residents expressed this idea both by emphasizing Ké – including taking personal responsibility to know the law, and to teach, learn, and honor positive traditional values – and also through emphasizing lifelong learning centers, where elders can pass on knowledge of language, culture, weaving, land management, and animal husbandry as ways of life and essential parts of the Navajo way.

5.2 Chapter Boundaries / Service Areas

For this planning effort, WHPacific, Inc. received chapter boundaries from the U.S. Census and the Navajo Land Office. Most chapters objected to the Census boundaries. The boundaries provided by the Navajo Land Office correspond to Grazing District boundaries but were not necessarily considered by the chapters to be the same as chapter service areas. Several neighboring chapters had service areas that overlapped.

Figure 3 shows the difference between the Census and Grazing District boundaries used by the Land Office to denote the chapters. Neither of the boundaries shown necessarily correspond with chapters' own service areas, although the project team was unable to obtain these as maps.

As of 2008, the Bureau of Land Management, in coordination with the Land Office, is starting a cadastral survey and monument project, which will involve extensive work in the field by technical professionals. Using a mapping system based on grids, the team will eventually GPS a point to serve as the monument that marks the crossing of two grid lines. While the Navajo Nation does not have to adopt the grid system for its maps, this reference tool can help serve as the basis for future mapping efforts to ensure their accuracy.

While chapter boundaries continue to be a “hot topic” for many, and an untouchable topic to some, there are others who feel the time has come to resolve the issue. While this resolution can be assisted by professional mapping techniques like the one described above, boundaries are a heart a governance issue. Resolving overlapping boundaries will require discussion, negotiation, and agreement with neighboring chapters. Even if resolution cannot be reached, the efforts to negotiate should open a dialog and continue a relationship of partnership of chapters that share responsibilities for serving area residents.

Having the chapter boundaries resolved would be aided by making them official through an adoption process by the Navajo Nation Council, after which they should be the official boundaries used for all maps generated by or for the Navajo Nation. This will require coordination with the Land Office and also the U. S. Census.

Chapter boundaries will affect where to direct funding, so the stakes are high. Even after funding arrives, unresolved issues with overlapping service areas complicates the implementation of projects. Even if chapters continue to agree to disagree about their boundaries, neighboring chapters should work out a system to process, approve, and implement projects in order not to cause any development delays.

One example that arose during this planning effort involves Cameron and Coalmine Canyon. Both serve Black Falls and Ward Terrace, and both have different plans for these areas spelled out in their CLUP. Overlapping service can be a benefit to residents, as long as chapters cooperate and share resources to serve the residents of both places.

5.3 FBFA Task Force Adjustments

5.3.1 FBFA Resident Representation and Coordination

The strategic plan developed by the Former Bennett Freeze Area Task Force calls for the forming of an advisory committee made up of area residents. Whether this structure will work or not, the implementation of the FBFA Recovery Plan will require a leadership and decision-making role by residents from all chapters.

Some residents have recommended a quota system of representation at all levels of the project, so that a quorum of 50% of residents must be reached before decisions are made. While this might help assure that residents are aware of planning efforts and project process, it will also introduce significant opportunities for delays and blocked progress due to disagreements about action.

As with all things, proper representation must be reached without impeding progress that all need and most agree with. As the procedure for representation is established, the need for representation should be weighed against the ability and efficiency of action.

In addition, many FBFA residents do not have much extra time to attend more meetings. Many want to see progress, not talk more about it. Some balance needs to be struck between responsible input and decision-making and respecting the already taxed lives of residents struggling to get by.

5.3.2 Additional Division and Department Representation

The development needs in the FBFA extend well beyond Community Development. Representatives from the Division of Natural Resources, Division of Public Safety, Division of Economic Development, Division of Diné Education, among others, all need to be incorporated somehow into the workings and decision-making of the FBFA.

If the FBFA becomes an Executive Priority, the President may need to either add members to the Task Force or convene special cabinet meetings specifically related to the Recovery efforts.

5.3.3 Coordination with Other Organizations Involved in Recovery Efforts

The Forgotten People is a non-profit community development corporation (CDC) that has been working for many years to resolve the land dispute and improve local conditions by residents affected by the freeze.

Continued contact and coordination with this organization can help improve the outreach and responsiveness of the FBFA Task Force. Specifically, the organization is already made up of local FBFA residents and community members who have lawfully organized to address local community conditions and concerns. Forgotten People has indicated support for this project and requested that they be kept informed of Recovery activities. As a non-profit, the organization is eligible for loans and grants, and it is also able to obtain technical and capacity-building assistance from various sources.

The organization has recently shown positive progress in its involvement in the Black Falls area east of Flagstaff.

This and other CDCs should be active participants in their capacities for raising funds and accessing technical and training assistance for local Chapters, communities, organizations and individuals to successfully and efficiently implement the Recovery Plan.

5.3.4 Implementing Recovery Efforts

5.3.4.1 Centralized Office for Executing Initiatives

It is evident that there are competing priorities and commitment that limits the full-time participation of the FBFA Task Force members. For this reason, the plan recommends that an office dedicated to the former Bennett Freeze area recovery be established to spearhead planning, project management, and coordination among stakeholders.

This office would be responsible for executing the initiatives of the FBFA Task Force.

5.3.4.2 Advisory Committees or Working Groups

In addition to forming an advisory committee of residents, it may be helpful to establish advisory committees or working groups specifically tasked to plan, coordinate, and implement the FBFA projects in each of the project categories:

- Housing;
- Infrastructure/Utilities;

- Transportation;
- Health and Public Safety;
- Community Facilities, Parks, and Recreation;
- Land and Resource Management;
- Economic Development and Community Facilities; and
- Education

These working groups would be made up of staff and representatives from the respective fields, programs, and community.

5.3.4.3 Ensuring Ongoing Responsibility for Implementation

Since the FBFA Task Force is appointed through the present Administration (Dr. Joe Shirley, Jr.), it is possible that their function will end before or when the Navajo Nation President's term of office ends.

The Task Force consider and make decisions about the long-term need of having a task force, the ongoing Memorandum of Understanding, and how to establish an office dedicated to implementing the Former Bennett Freeze Area Recovery Plan.

5.3.4.4 Ongoing FBFA Task Force Responsibilities

The following are the next tasks that must be taken on by the FBFA Task Force in order to move forward with the Recovery Plan.

- Revisit the former Bennett Freeze Area Strategic Plan and develop new strategies to match new circumstances and the need for next steps.
- Complete Recovery Plan Legislation needed to implement Recovery Plan projects.
- Work with Navajo Hopi Land Commission Office and Division of Community Development's Design & Engineering Services to complete an organizational structure to implement the existing and new strategies of the former Bennett Freeze Area Task Force.
- Establish an Advisory Committee or working group in the areas of Infrastructure/Utilities, Housing, Transportation, Economic Development and Community Facilities.

- Identify all rules, policies and procedures that have to be waived or revised due to being obsolete or in conflict with the effective implementation of the former Bennett Freeze area initiatives.
- Develop a methodology to track progress of the FBFA Task Force initiatives.
- Provide progress report back to the Navajo Nation Office of the President/ Vice-President containing requests for an Executive Order or other directives that need to go from the President's office to respective Divisions within the Navajo Nation government.

During the last strategic planning work session in August of 2007, the FBFA Task Force laid out the following 12-month strategies. Those indicated with strikeout lines have been accomplished as part of the Recovery Plan effort. Those remaining in still need to be accomplished.

Strategic Direction: Securing Sustainable Resources

Goal: Securing Sustainable Resources

Strategies:

- Support FBFA Redevelopment legislation (Development Bill)
- Realigning funds from other existing funding sources – including Agency resources. Also, revisiting policies on income level.
- Seeking funding from outside Agencies

Strategic Direction: Formulating and Implementing Development

Goal 1: Formulating and Implementing Development Plans

Strategies:

- ~~Developing Short (i.e. Recovery Plan) and Long Term Development Goals~~
- Providing adequate program funding for administrative support
- Prioritizing and funding Projects

Goal 2: Implementing Innovative Strategies and Processes

Strategies:

- Creating clearinghouse for all outside funds
- Streamlining processes where it is appropriate and necessary

~~***Goal 3: Formulating Comprehensive Baseline Data Inventory***~~

~~***Strategies:***~~

- ~~Identify existing infrastructure (define) and facilities (what do we have?)~~

- ~~Conduct a natural resource Inventory—enhance existing inventory~~
- ~~Compile housing and population demographics—combined efforts~~
- ~~Conduct economic development feasibility studies~~

Strategic Direction: Enhancing Public Awareness

Goal: Enhancing Public Awareness

Strategies:

- ~~Sponsor 1 Day Summit in Tuba City with Navajo Nation President~~
- ~~Educate all 9 Chapters of Development Plans~~
- ~~Inform Families through Media Every Month and Use Local Resources~~
- ~~Conduct 2 Public Hearings at all 9 Chapters~~

Strategic Direction: Embracing Collaborative Partnerships

Goal: Embracing Collaborative Partnerships

Strategies:

- ~~Sign MOU (issue Proclamation signed by all Agencies) enlisting support and mutual understanding among NN President's Office, ONHLC, 1934 Subcommittee & FBFA Task Force through Agreement~~
- Staff the Task Force with a Coordinator –establish and maintain FBFA Task Force Office
- Host Leadership Summit with NN President and FBFA Task Force members
- Get support from Legislative and Executive Branches
- Establish relationship with political entities in the FBFA (i.e. Chapters, Agency Council, District Council and respective subcommittees)

5.4 FBFA Resident Representation at the Chapter

The residents of the former Bennett Freeze area have been impacted greatly due to the lack of services and improvements to their community. For the last forty years residents have seen their community deteriorate and felt abandoned by their chapters, the Navajo Nation, and United States government.

Now that the FBFA has been resolved, residents want to be involved in the planning process, they want a clear and direct line of communication established between them, the Navajo Nation, and the U.S. government, and they want their community improved to the same level as rest of the Navajo Nation.

Several residents expressed reservations about whether their chapters can and will respond to their needs and work to implement projects. Past prohibitions of using funding in the FBFA have led residents to mistrust that chapters will serve them. As the new chapter in the FBFA history begins, efforts need to be made on both sides to establish a new relationship of mutual trust, responsibility, and cooperation.

5.5 Infrastructure and Capital Improvement Project Criteria

5.5.1 Existing Criteria

Several departments have their own established criteria for projects, some of which may prove to be a barrier to implementing FBFA projects. Under the leadership of the Former Bennett Freeze Area Task Force, these entities – CIO, IHS, NTUA, BIA, and others should work to identify problematic or conflicting criteria and establish a means to address them in order to facilitate the efficient implementation of Recovery projects.

5.5.2 Additional Criteria Relevant to FBFA Projects

In addition to identifying problematic or conflicting existing criteria, there may be criteria relevant to assessing and implementing FBFA projects that need to be considered and perhaps added to the review and implementation process.

WIND is one example that will require adjustments for the nine chapters impacted by the former Bennett Freeze to be able to access funds exclusively to serve FBFA residents. As noted in other sections, the easiest method may be assigning a ratio of residents living inside versus outside the FBFA boundary, although this ratio will change over time and therefore will need periodic revision.

5.5.3 Inter-Department and Agency Coordination

The current ICIP system may not include an adequate process for the kinds of projects coming out of the FBFA Recovery. Additional staff and agency review may be necessary, particularly for projects that will fall to Divisions other than the Division of Community Development to implement. This process and the working relationships that will make it successful need to be established now, before projects are delayed.

5.5.4 Approval Process

The general approval process for FBFA ICIP projects may need to be adjusted for special circumstances or extraordinary projects. At the very least, the latest efforts to regionalize the ICIP process, if embraced, should help coordinate projects that affect multiple chapters and communities.

5.6 FBFA Project Priorities at Departments and Agencies

5.6.1. Housing

There are many important questions that remain unresolved about housing assistance to former Bennett Freeze area residents, which is the top priority based on this planning effort.

It is given that funds will always be limited, and there will always be a limit to the availability of work crews and therefore how many houses can be constructed at any one time. Given these limitations, it must be decided, preferably before funds are received, who receives priority for assistance first and what form that assistance will take.

5.6.1.1 Priority Assistance

Some participants in this planning effort have recommended that young families receive assistance first, but it may also be important to begin construction on elderly care centers for elders. If funding is limited in a particular year, which will get priority? Who will decide?

IHS uses cost efficiency to decide between projects. Projects that can be completed for the least cost happen first, maximizing the benefits provided by each funding dollar. It is clear that some homes in the FBFA, especially remote, will cost more to rehabilitate or replace than those closer to existing infrastructure and services, yet these residents have been the most affected by the former Bennett Freeze. Given that there will most likely be very different costs to build scattered-site or remote houses and clustered housing, how will both justifiable needs be served?

If there is to be a Community Development Corporation (CDC) to implement FBFA recovery projects, how will such an entity interface with existing departments and agencies in order to facilitate implementation, not complicate efficient governmental response?

5.6.1.2 Eligibility for Assistance

This issue of eligibility for housing assistance gets more complicated and must be decided quickly in order to register people for assistance prior to the arrival of funding.

- How might eligibility and/or priority be different for FBFA residents?
- If it is, how far back in time will eligibility extend, and how closely related must an applicant be to a FBFA resident?

- What about a young couple that has never lived in the former Bennett Freeze area because their parents or grandparents moved to unfrozen chapters?
- What if this couple is only distantly related to a former Bennett Freeze area resident?
- Are there records to support a procedure that distinguishes among former and current residents of the FBFA?
 - Will it be based on honor system for the applicant?
 - If someone at the chapter knows differently, is there basis to deny someone assistance?
 - What would be acceptable level of proof in order to deny a request?
 - What would the procedures be for the applicant to appeal such a denial?
 - Who would ultimately have the authority and responsibility to decide?
 - How can efficient and timely approval be assured for the approval process?
- What about someone who relinquished their rights to be counted as Navajo in order to remain on Hopi land and receive Hopi assistance for a house?
- Will someone who has already received assistance from the chapter or somewhere else have equal priority to those who have never received assistance?
 - Are there records that could support a procedure to prioritize based on prior assistance?

5.6.1.3 Housing Assistance Registration, Approval & Denial Process

The most asked question in this planning process has been: How do I sign up? Now that awareness has been raised, and valuable input has been gathered, the Task Force will need to work to establish a method by which residents can access assistance.

Many residents raised the question of whether income eligibility could be waived for FBFA residents. Residents also requested a fast-track homesite lease process in order to build homes. Many residents are also seeking financial assistance to pay for archaeological clearances.

It might be fair to establish multiple tracks for residents with different incomes and need. NHA could continue to provide assistance to low-income residents, and a public/private partnership, perhaps through the Community & Infrastructure Department, could work with others. There could also be a sliding scale for assistance, which would still allow for some parity across

incomes while stretching funds as far as possible for the most benefit. Deciding the process and lead agencies must begin immediately in order to respond to a long pent-up need.

Another complication may be how assistance is denied to those whose homes are assessed as good or very good by the field team or other professional staff. It will be important to establish the process by which requests are denied well before residents have the opportunity to apply.

5.6.1.4 Construction and Maintenance Responsibility

It will also be important to establish the entities responsible for construction and repairs on the wide variety of FBFA projects.

It would seem to make sense to keep the Division of Community Development as the clearinghouse for assessing project readiness and then routing projects to the relevant departments or agencies for implementation.

FBFA projects may include those with maintenance responsibilities that fall outside the chapter. Whether maintenance is assumed by other entities or added to the chapter, the capacity for proper ongoing maintenance needs to be assured before the investment of FBFA funds.

5.6.1.5 Homesite Leases in the FBFA

Many residents in the FBFA embrace a traditional way of Navajo life, including ranching and farming as the main subsistence activities.

These residents raised two main issues with the current system of homesite leases. One is the possibility of have a summer and winter homesite leases, and the other is whether the amount of land per homesite lease can be linked to the livestock limit of individual grazing permit holders, in order to provide adequate space near homes for herds.

5.6.2 Infrastructure

5.6.2.1 Inside / Outside Problem

Many linear projects, such as roads or waterlines, may extend partly in and partly out of the FBFA. It needs to be established how these projects will be assessed for eligibility to receive FBFA funds.

One straight-forward way may be to calculate a percentage of the project that falls inside the FBFA, and that becomes the percent of the total cost eligible for FBFA funding.

5.6.2.2 Coordination with Owner Agencies & ROW

The agencies and departments that already have responsibility for infrastructure planning and implementation need to be brought in to the FBFA process, to establish good working relationships, efficient provision of services, and productive sharing of expertise.

Obtaining right-of-way (ROW) should be streamlined as much as possible for multiple projects in order to minimize delays and complete projects quickly over time.

5.6.2.3 Operations/Maintenance Assistance for Low-Income, Remote Families

In order to provide electricity, clean water, and wastewater service for those choosing to live in remote areas, this plan recommended the general approach that electricity should come from solar panels with wind-powered backup generators, safe drinking water should come either from nearby watering points or from some kind of centralized, regular water truck delivery service, and wastewater should be treated either individually with septic tanks or clustered to be served by sewer lagoons.

Many families may need assistance with maintenance costs for these alternative systems. Grants or other partnerships should be investigated where possible. Septic systems provide an instructive example, as many families who cannot afford the service to have them maintained simply stop using them once full. The remoteness of some houses means much higher costs to pay privately for services. Special consideration should be given about whether and how to provide additional assistance.

Policies and land-planning should also be strengthened to establish the preferred or designated zones for housing based on what kind of public services will be available. For example, those choosing to live within five miles of the main community will be provided water and power hook-ups; those living within 10 miles will be provided safe watering points within 5 miles and alternative energy services; those choosing to live more remotely will need to find other solutions.

See also **Section 5.7.3.1** for issues relating to health risks from residents in remote areas without access to nearby safe drinking water sources who choose to drink water from windmills, which are at risk for airborne contaminants and bacterial contamination from contact with livestock.

5.6.3 Community Facilities

5.6.3.1 Inside / Outside Issue

Community facilities best serve residents when they are located in central or easily accessible areas, preferably clustered with other activities, service, and public buildings. For five of the chapters in the FBFA, these locations tend to fall outside the FBFA, which by definition has seen limited development within the last forty years.

From a community planning perspective and following the recommendations for sustainable communities, public facilities should be clustered near higher-density residential areas and near major roads and intersections. If these services still benefit FBFA residents, many of whom do not want to lose their grazing lands to development, it may be advisable to calculate the portion of FBFA funds that could be allocated toward projects not physically within the FBFA boundary but still benefiting FBFA residents. This issue has been referred to as the “inside / outside” problem throughout this planning process.

Ultimately, eligibility criteria would need to match funders’ restrictions, but once those criteria are met, it would fall to the Former Bennett Freeze Area Task Force to work with relevant departments and agencies to develop an acceptable calculation to assign FBFA funds to such projects physically outside the boundary.

The portion of the total project cost could be calculated based on the percentage of the chapter’s population, or multiple chapters’, who live inside versus outside the FBFA. For example, in order to calculate the amount of FBFA funds that a health clinic in Bodaway-Gap would be eligible to receive, the total cost of the clinic would be multiplied by the percentage of FBFA residents in Bodaway-Gap, who would all benefit from such a facility. Strictly as an example with straight-forward math, if the clinic were to cost \$100 million, and 50% of Bodaway-Gap residents live within the FBFA, then the project would be eligible to receive \$50 million from the pot of FBFA funds. The remaining cost would need to be funded through other sources and by other means.

5.6.3.2 Operations / Maintenance Cost Assistance for Chapters

Another issue that falls outside the scope of this plan, which focuses on capital needs, is one that faces many chapters across the Navajo Nation. Particularly true of the FBFA chapters, remoteness and associated low populations negatively impact both commercial revenue potential and tax revenue potential. Even for certified chapters, access to operating funds is far below what might be needed to operate and maintain existing and proposed public facilities. Anecdotally, the Capital Improvement Office has provided new facilities in many chapters only to see them boarded up within a few years due to lack of operating funds.

Many chapters currently lack the capacity and training to apply, track, and administer private grants or create and maintain partnerships for outside or private funding. As projects move forward for implementation, support is needed to train and build capacity at the chapter level to increase their operating budgets and maintenance capabilities.

5.6.4 Water Delivery

The provision of water to residents in remote areas remain mainly a policy decision about how far is reasonable to expect a resident to travel to haul water from a safe drinking water source and how far to go to accommodate those choosing to live in remote conditions. These decisions must be balanced with the fact that many living too far from a regulated drinking water source will resort to using water intended to livestock, which is not monitored for quality or protected from bacterial and other contaminants. Water Resources also has a good discussion of water hauling and its financial impacts on residents already stretched by challenging economic conditions in its Strategy document for the Nation.

Because the best policy solution for providing water to scattered homesites has not been identified, the project list seen in **Section 4.3.2** estimates an average cost per scattered home of providing some kind of solution for water delivery at \$20-30,000. This per home cost was multiplied by the number of scattered homes (assumed to be 1,200 sq. ft. each) in the chapter needing water to calculate a total project cost. These funds could be pooled by residents to purchase their own water hauling trucks, or pooled across chapters to purchase multiple trucks and start a regular service delivery.

The approach taken in this plan is based on the fact that identifying the solution will require (1) political and policy decisions, (2) more technical study of potential solutions, and (3) a more narrowly focused planning effort to zero in on both the problems and the best approach to provide water locally from each community to each scattered home.

5.7 Avoiding Obstacles to Development

5.7.1 Grazing Permittees

5.7.1.1 Development Conflicts

The rise of economic and community development has begun to conflict with the pastoral tradition of past and current generations. Many grazing permit holders consider their customary use of the land to be a kind of ownership, and development proposals can be stopped by this small minority of tribal members.

Much in this plan serves to support the protection of ranching as a way of life by assuring that land is set aside for grazing, encouraging the development of a range management plan, constructing safe and adequate watering facilities for animals, and providing fencing and cattle guards in needed locations.

At the same time, very real economic and community development needs in these communities will require that additional land is designated for additional buildings, which will invariable impact grazing lands.

Participants in this process have expressed that much of this issue rests with the need to provide more public education about community development needs and plans with those affected, as the first order of business. In general, the public needs more understanding of general land-use policies at the local level.

It would be a good use of a potential FBFA residents' advisory group to be tasked with developing an educational outreach program about this topic, as well as charging the group to come up with proposals for a special process for consent from grazing permit holders in the FBFA whose grazing lands are proposed for development.

Some residents have suggested a fast-track approval process that bypasses grazing permit holders. Others recommended granting the chapters some kind of power of eminent domain to designate lands for development even without the permit holders' consent. Still others suggested granting a preemptive assumption of right-of-way for infrastructure and other projects. If this is to be adopted, permit holders should be involved in such a policy's development to ensure the most fairness and deep thinking from those impacted most directly.

It is unknown at this time the future implications of the Grazing Management Office assertion that all grazing permits on the FBFA lands have been nullified. Grazing officers at many of the nine chapters could not confirm this information at the local level. There may be some misunderstanding, but it needs to be

cleared up before funds arrive in order to understand the challenges facing communities who wish to develop and grazing permit holders in those locations.

5.7.1.2 Range Management and Enforcement Improvements

In addition to the conflict between development pressures and grazing permit holders need to retain lands as open space, the overall system of range management needs improvements. The BIA and Grazing Management Office express frustration with the lack of enforceability of grazing permits and livestock limits. While they are tasked with protecting natural resources and preserving good grazing lands for future use, they are often not given the power, authority, or tools to do so.

At the local level, grazing officers requested more oversight and power for canceling and reissuing permits after known violations. One chapter recommended making permits good for only a limited amount of time, perhaps only a year. In order to renew the permit, the holder would need to submit a management plan on a regular basis, and the range management unit would similarly need to show a more regional plan in order to remain active, produced through a partnership with ranchers and grazing officer. Agreements among permit holders would need to be put in writing and submitted to the grazing officer, who would have the power to cancel permits when either party violates the agreement. Partnerships with neighboring range management plans will avoid conflicts with grazers in other chapters.

The same chapter recommended deputizing the grazing officer to patrol the range on horseback and charging a fee for windmill water use for livestock, which would pay for its maintenance, water quality testing, and upgrades. This fee would help prevent abuse of water use. In addition to the grazing officer, a local range rider should provide additional enforcement support.

In 1992, a suggestion was made to deputize grazing officials to enforce grazing laws, but this would also require amending tribal laws to make it legal for officers to seize and impound animals. At the present time, grazing officials can only communicate with grazing permit holders about infractions.

Grazing permits need to be redefined to establish clear criteria and accountability. The Department of Agriculture needs to work with the BIA and grazing officials within the FBFA chapters to establish a process to re-issue grazing permits that were canceled with the FBFA at some point in time. As part of this process, many of the issues raised about future development and enforcement of livestock limits and range management plans should be discussed and incorporated in the future process to regulate grazing permits in this area.

5.7.1.3 Adjustments and Compensation for Grazing Permittees

Another issue was raised by ranchers. The current homesite lease system, limited to 1 acre per household, does not support grazing as a lifestyle and has further facilitated a spreading out of housing and development onto grazing lands. As the grazing permit issue is resolved for the FBFA, it may be useful to consider whether homesite leases could be adjusted based on the livestock limit set in the individual grazing permits.

Many grazing permit holders requested fair compensation for their grazing lands when they are proposed for development. Currently, the value of tribal land remains hard to define because it is not sold and therefore does not have a true market value. Value therefore must be assigned to the grazing use of the land. As of now, this is a system that allows payment to be negotiated between the permittee and the Navajo Land Department, not at a set value, but related to sheep unit equivalents held by permittees. This system has only very rarely been used and most likely could not handle the scale of requests that the FBFA Recovery will require. If grazing permit holders are to be compensated, a fair and workable system needs to be in place.

5.7.2 Chapter Capacity for Project Management, Maintenance, and Operations

Many chapters operate at the limits of their capacity to manage projects, maintenance, and operations of existing facilities. Asking staff to take on more projects and responsibilities may set the Recovery up to fail without providing additional training and funds for additional staff and necessary equipment.

In addition, the following steps are needed at the chapter level to build capacity for leadership, decision-making, and project management:

- Continued training for chapter officials in community leadership, governance, and service to constituents
- Continued training in project management, accounting practices, funding possibilities for Chapter Services Coordinator
- Continued training in ICIP process – both soliciting community priorities, tracking inventory and funding, and requesting new projects & funding.
- Ongoing public education about importance of voting, participation at all levels
- Support for grant-writing, grant-tracking, and maintaining good relationships with outside funders
- Continued emphasis on working with neighboring chapters to coordinate development and leverage resources, especially for infrastructure
- Financial Management Plan

5.7.3 Cooperation and Ownership Among Agencies / Departments

As discussed throughout this plan, the successful implementation of the Recovery Plan will require significant coordination among many agencies and departments.

As with any successful partnership situation, there needs to be a balance between the cooperation and sharing required with the need to maintain ownership and accountability for roles and responsibilities, individual and shared. While both partners may share responsibility for implementing a project, each must maintain the responsibility for performing agreed on tasks. Cooperation and more formal partnerships should include measures to assure and track accountability of all parties.

As noted in **Section 4.1** and **Section 5.3.3.1**, if there is to be a Community Development Corporation (CDC) to implement FBFA recovery projects, it must be decided how such an entity will interface with existing departments and agencies in order to facilitate implementation, not complicate efficient governmental response.

The current memorandum of understanding (MOU) signed by all the major agencies on the Navajo Nation contains specific roles and responsibilities of each agency. Major offices under these agencies should develop a plan of action outlining their approach to inter-agency/ department coordination, including identifying all leveraged resources, using the MOU as a guide.

Working groups in each of the project categories (Housing, Infrastructure/Utilities, Transportation, Health and Public Safety, Community Facilities / Parks and Recreation, Economic Development, Agriculture / Grazing / and Cultural Resources, and Education) should spell out their own “blueprints” for working relationships and project plans to achieve Recovery Plan results.

5.7.3.1 Water Supply for Remote Areas

Although this document outlines plans to supply safe, tested, high-quality drinking water to remote residential areas, there is potential for an ongoing issue of people drinking from windmills, which are at risk for bacterial contamination, air-borne contaminants, and vandalism due to the presence of livestock and their remote, unsupervised locations.

While no existing policies require tests for water quality, it may be that continued evidence of human consumption warrants that relevant agencies address this issue and resolve it for the future. Potentially, NTUA and other may need to either adjust their policies or work with chapters to find locations within remote areas that can still be observed, maintained, and tested to protect the safety and quality of water and watering source.

Once this governance and policy issue is resolved, there are technical fixes that can address and ensure water quality, including small package water treatment facilities using reverse osmosis to remove bacterial and even uranium contamination.

5.7.4 Cooperation and Resource Sharing Among Chapters

Many of the key projects in the FBFA are large-scale and regional in nature. These projects will require ongoing coordination, partnerships, communication, and joint approvals. As much as possible, the process and procedures for this cooperation should be worked out before a contentious project has the opportunity to challenge working relationships.

In addition, the ongoing costs of maintenance and operations for additional facilities at the chapter level may require some agreement for how to share budgets and/or responsibilities for grant writing and reporting for projects that benefit residents from multiple chapters.

5.7.5 Community Education and Inter-Generational Planning

One of the underlying issues in development conflicts at the chapter level go to the heart of the difference among generations and their choices for how best to live. Elders tend to be tied to livestock and traditional ways of living. These residents have seen problems arise from clustered housing over time. They also tend to be highly independent and self-reliant and choose to live with lower expectations of amenities versus compromising their way of life. These residents also tend to be primarily Navajo-speaking; they tend to want more isolation and open space to support livestock; and they tend to have a more intimate and immediate knowledge of the land and cultural and sacred sites than other generations.

The generation approaching middle age wants more amenities and are still generally skeptical of clustered housing due to past problems. These residents see more of a need for economic development that provides jobs, since they are seeing many of their children move away from the community to support themselves and their families. Many in this generation had to do the same during the former Bennett Freeze, and they have returned to the area now that more opportunities are available. They are committed to raising the standards of living in their communities, perhaps not the level of cities, but these residents have come to expect modern “conveniences” such as power and running water as necessities. While many in this generation understand Navajo very well and speak when elders are present, more have become comfortable with English and prefer it for most daily interaction.

Youth want modern amenities and a high quality of life, including community services and facilities. Recreation is particularly important, as are fast food, wage jobs, and good schools. There seems to be a split between those wanting to move back to ancestral lands and those wanting to move off the reservation for job opportunities and modern life elsewhere. This younger generation tends to understand but not speak Navajo.

Many workshop participants described the need to plan for youth and future generations, while still protecting the ways of life of parents and grandparents and allowing the opportunity for those who want to live in more traditional ways to do so. Much of what is needed to bridge this generation gap is simply opportunities to describe to each other what they want and why – how what they want and how they want to live benefits and strengthens the community.

Field teams noticed a difference in the requests of those already living in remote areas – mostly wanting the basic necessities for life – safe water, septic systems that worked, houses that weren't hard to heat in the winter, and better roads that could take them to buy food, gas, and other necessities – versus those living in more densely populated areas, who wanted plumbing, sewer lines, community facilities, social services, schools, daycare, and economic development.

Much of this plays out in the dispute between those who use the land for grazing and traditional ceremonies and those who want more land slated for community and economic development. In addition, this generation gap plays out in the emphasis of traditional and cultural knowledge.

In general, this is a debate between those emphasizing traditional, humble, self-sustaining communities – embracing livestock, agriculture, and local water sources – versus those who want more connections to outside communities that bring with them modern opportunities, economies, amenities, and too often, social problems.

This plan recommends the only way to bridge the generational gap of expectations is to provide a full range of choices for how to live and as many opportunities to plan across generations as possible. In particular, youth need to have additional voice and responsibility on the Task Force and at the chapters, as it really is their communities that recovery efforts will build. They can also provide needed assistance in information gathering and sharing, particularly exploiting the benefits of modern technology.

Many intermediate steps to bridge the generation gap can be taken at the local level, including elder and youth lunches, service projects, field trips to gather traditional herbs or to note cultural resources, or planting community gardens.

5.7.6 “Generations of Mistrust”

This key phrase was used at the Bodaway-Gap community workshop to express how people have seen trust broken at all levels – from chapter officials who show favoritism to family and friends, departments and agencies that haven’t followed through on promises, elected Councilmen that haven’t always championed the people’s needs, and disastrous decisions made by the federal government which supposedly has trust responsibilities to the tribe, to the state abandoning or generally ignoring them.

Signs of weak engagement and participation at the local level show a significant lack of trust in the ability to change the way things work or don’t work for area residents. Voting numbers are low; chapter meeting attendance is low; hope is low.

Successful coordination and positive attitudes toward partnerships among chapters, agencies and departments, and levels of government will go a long way toward reestablishing trust and hope in the possibility of recovery and continuing community improvements over time.

In addition, it will be very important to show small successes early in the process. Although some of the smaller projects may not be needed as urgently as the “big-ticket items” like roads, waterlines, and powerlines, the successful and efficient completion of a skate park, for example, that immediately improves the quality of life, activity level, and atmosphere in a community, particularly for youth, can be a powerful catalyst for more action, more hope, and more participation.

When people see success, they are more motivated to help work for more. When there have been no successes for years, there is very little reason to think there is much to gain by working hard for what won’t happen, anyway. Small, incremental successes interspersed with efforts toward the major, urgent improvements offers the best approach toward engaging the public and ensuring momentum toward recovery and improvements into the future.

5.7.7 Training and Recruitment for Professionals and Skilled Workers

Even if these projects come to pass, key individuals such as doctors, nurses, policemen, construction workers, plumbers, etc., will be needed to provide necessary services for residents. Successful and sustainable communities require their ongoing technical and professional knowledge and skills.

This can constitute a “chicken and egg” problem. The community cannot be complete until professionals and workers come back, yet many won’t come back until a sufficient quality of life and amenities are available.

The general solutions for this type of problem include a mix of recruitment incentives and homegrown training. Many chapters mentioned wanting to provide scholarships with requirements of service back in the community after graduation for a proscribed number of years. Inhouse training, particularly vocational schools, certification programs, and land management training, is a significant part of this plan approach.

A resource pool for recruitment may be able to be shared among the chapters, agreeing to leverage their own funds to recruit a pool of individuals to be shared among communities in the beginning until communities can support their own. Chapter budgets may need to be pooled to pay for additional staff positions, particularly in the early recovery efforts. Visiting nurses and other professionals that can be shared may be able to be supported in this way.

Another approach is to invest as much as possible in adequate facilities and equipment that can be ready for professionals and other workers when they do come to the community.

Most projects in the recovery plan will require significant amount of construction workers and skilled and unskilled labor. As much as possible, local residents should be trained and hired for these opportunities to help literally build the FBFA communities.

In addition, implementing recovery projects will require technical expertise and project management skills, which should also be available to local residents who wish to receive such training.

One chapter summarized these efforts as “launching professional services and development,” including seminars for local leaders, providing assistance to home professionals to expand their markets, establishing extension courses and partnerships with area higher education institutions, adding vocational training to the high school curriculum, and providing CPR and food handler training.

5.7.8 Incentives for Regional Improvements

While five of the chapters in the former Bennett Freeze Area have certified Community Land Use Plans, only Tuba City has completed the financial management portion of the process in order to receive gross receipts taxes directly. As such, there is a disincentive for Tuba City and neighboring chapters to work together on projects to improve regional economic development. As long as all taxes are shared among chapters, there is a larger incentive to cooperate to improve everyone’s budget allowances. On the other hand, improvements in revenue in one area of the Navajo Nation are spread out over all 110 communities, which can also prove as a disincentive to each community to work hard, when many do not see an immediate or appreciable benefit.

Generally, communities that have some self determination and ability to generate revenues have an incentive to pursue economic development and try to become self-sufficient. Otherwise, with too many barriers to self-sufficiency, communities give up, and a cycle of dependence is deepened.

One of the ways that regions have dealt with the concern about “every place for themselves” is by forming revenue sharing or regional taxation among jurisdictions. Minneapolis/St. Paul did this successfully to balance the revenues that were generated outside the central city in the richer suburbs and the resulting loss of taxes needed to support services in the central city. A portion of locally-generated revenues would go to the region, but enough is reserved for the Navajo Nation pool of funds so the revenue sharing does not become a disincentive.

One approach taken by several non-tribal municipalities and more rarely, counties, is to establish a tax-increment financing (TIF) district. In theory, revenues generated from improvements go back into infrastructure and other investments to the FBFA for a certain number of years, after which they revert back to the Nation as a whole. Typically TIFs are created for 10-20 years or less. There may be structural, political, and legal issues with implementing a TIF on tribal lands and especially across multiple chapters.

An additional issue is that TIF districts in small communities often produce a relatively small incremental difference in revenue, particularly in the short run. It depends on the scale of new development and how quickly it happens. The question for the former Bennett Freeze area is would sufficient revenues be generated within the limited lifespan of the TIF to provide funds for significant investment or infrastructure projects? If annual revenues were to be used to secure bonds, what size projects would it support?

Another option is to develop an expedited process for business development in activity centers. For example, withdrawn areas in some of the older Community Land use Plans seem too small to support substantial economic development opportunities over time. As projects are funded by the ICIP, land withdrawals should include a reasonable size parcel in a location that could support additional retail businesses, motels, an industrial building, and perhaps a community facility over time. Withdrawing such a large parcel of land may be politically difficult given the lost grazing land, but it does serve the interest of community growth by clustering development in non-optimum grazing land and preserving good grazing land from sprawl.

As with small, rural towns, it is possible that the revenue generating potential is just not enough to pay for much. Many times, tax revenues and potential tax revenues in small towns just do not have the ability to generate enough money to pay for big ticket infrastructure projects. Substantial grant funding is most likely needed for initial projects like utilities. Thereafter, a rate structure needs to cover maintenance,

operations, and future replacement and upgrades. Many small communities balk at an adequate rate structure, because it is simply not affordable at the local level.

5.8 Updating and Maintaining Data and Plans

5.8.1 GIS Database

One of the significant benefits of this planning effort is all the geographic information gathered about the location of buildings, facilities, watering points, and livestock facilities, as well as assessments of buildings and roads. This information is built into a Geographic Information System, or GIS, that will be submitted to Design and Engineering Services as one of the deliverables of this process. The Navajo Nation's Divisions and Departments need to work together to find this database a home, where it can be accessible to those who could benefit from the information and work to keep it updated and current.

Many individual departments have similar if not overlapping kinds of information systems, including NDOT, NTUA, the Land Office, and Parks and Recreation. These systems need to be joined to take full advantage of their technical and information benefits. Potential clearinghouses for information could be Community Development, the Land Office, or perhaps even the President's Office. The key will be finding a home for the information that can be linked to all departments, with an entity with the resources and authority to keep the system current and maintained.

As this task moves forward, all agencies and departments must work together to establish how other agencies interface with it, including how information will be shared or distributed, how various budgets and staff will be allocated to support and upkeep the system, and the process by which agencies will update information.

5.8.2 Agency, Department, and Program Plans

Agencies and departments will need to accommodate recovery project recommendations from this plan into their own plan of operations. In addition, the Recovery Plan will need to be tracked and updated as projects are taken care of and more come up.

5.8.3 Chapter Land-Use and ICIP Plans

Chapters need to update their own ICIP plans with projects from this plan they're willing to take on. More details about this issue are summarized in **Section 5.4**. Community Land Use Plans will also need to be updated as projects are completed or decided against by the chapters and their residents.

Projects on the list that are not sponsored by chapters will need to be taken up by the Western Agency or by the relevant department within the Navajo Nation.

5.9 Public Health Issues

There are ongoing health issues that will continue to negatively impact the quality of life of FBFA residents in the future, even with needed improvements. These issues are partly endemic to an area that is predominantly rural and living close to subsistence level. Even efforts to move toward municipal water service delivery and develop a range of economic activities that can support more jobs and enrich residents, there are many problems that will continue to be issues for residents in the FBFA, some of which have been discussed above and are repeated here for emphasis.

5.9.1 Uranium

Uranium continues to be a daily danger for some residents in the FBFA. This includes “downwinders,” or those living near still-open test pits, whose negative effects on residents seem clear to those in the area but remain unestablished medically and scientifically. Unstudied health effects on residents, livestock, livestock tanks and windmills, and local wells need to be well understood by residents, who should be able to know and choose the level of risk to themselves and their families.

5.9.2 Livestock Water

As noted in several previous sections, livestock watering facilities are still used for domestic use and drinking water by people living in remote areas, and without water testing, livestock – and therefore humans – are at risk for uranium and other contamination in some areas. See descriptions in **Sections 2.1, 5.6.2, and 5.7.3.1.**

In addition to requiring policy decisions and technical solutions, guidance and information is needed from a public and environmental health perspective to ensure comprehensive, safe, and effective solutions.

5.9.3 Wastewater and Septic Systems in Remote Areas

As discussed in Section 5.6.2.3, current wastewater facilities are not adequate in remote areas. Septic systems pose a certain inherent risk to the environment, and there are many scientifically and technically preferred means of treating wastewater, which could work well in the FBFA. Looking into alternative methods requires a policy decision that providing such services is justified in remote areas and the provision of resources to study and implement such solutions.

5.9.4 Emergency Response in Rural Areas

While current effort toward rural addressing and 911 emergency response should improve conditions for many residents, the remoteness of the FBFA communities will remain an ongoing challenge.

While solutions such as helicopters and airstrips can provide technical solutions, these represent major investments and associated ongoing maintenance costs. These may be deemed entirely worth the cost in order to save human lives. The issue warrants more study, discussion, and policy decisions.

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6.0 Funding & Agency Sources

6.1 Utility Infrastructure				
Agency	Program	Contact Info	Description	Services Offered
Arizona Department of Commerce	Greater Arizona Development Authority (GADA)	400 W. Congress, Ste. 504 Tucson, AZ 85701 520-980-4209 http://www.azcommerce.com/Councils/GADA.htm	- Created by AZ State Legislature to assist local and tribal governments with the development of public infrastructure projects	- Provide access to bond market that allows money for technical assistance grants, financial assistance to subsidize loan costs, administration costs - Eligible projects include predevelopment planning services, such as engineering and market feasibility studies; the construction of public facilities and infrastructure; and economic development
HUD	Indian Community Development Block Grant Program	www.hud.gov One North Central Ave, Ste 600 Phoenix, AZ 85004	- Provides direct grants for use in developing viable Indian communities, including decent housing, a suitable living environment, and economic opportunities, primarily for low and moderate income persons	- Infrastructure construction, e.g. roads, water and sewer facilities; and, single or multipurpose community buildings
USDA Rural Development	Rural Development Community Connect Grant Program	AZ state office: Phoenix State Office 230 N. 1 st Ave, Suite 206 Phoenix, AZ 85003 602-280-8701 http://www.usda.gov/rus/telecom/commconnect.htm	- The Community Connect program serves rural communities where broadband service is least likely to be available, but where it can make a tremendous difference in the quality of life for citizens. The projects funded by these grants will help rural residents tap into the enormous potential of the internet.	- Grant funds may be utilized to deploy broadband transmission service to critical community facilities, rural residents, and rural businesses and to construct, acquire, or expand, equip, and operate a community center that provides free access to broadband services to community residents for at least two years.

6.1 Utility Infrastructure

Agency	Program	Contact Info	Description	Services Offered
Navajo Tribal Utility Authority (NTUA)	Navajo Nation CDBG funds (received via the chapters)		- Certain capital contributions for construction are received via the Navajo Nation Community Development Block Grant and Capital Improvement Offices. The Navajo Nation CDBG Office submits a Grant Application annually to the USDA Housing and Urban Development for infrastructure projects on behalf of the Navajo Nation Chapters. NTUA receives this funding via the Chapters to construct electric distribution systems to extend electric service to the Navajo people. The IHS also receives money from this grant to construct water and wastewater systems for communities.	

6.2 Water/Wastewater

Agency	Program	Contact Info	Description	Services Offered
Environmental Protection Agency	Drinking Water Capacity Clearinghouse	Deborah Patton, 602-258-4822 www.epa.gov/region09/water/tribal/	- Builds capacity for Region 9 tribal drinking water systems	- Offers reimbursement to tribes for any costs associated with small-scale, capacity-building activities related to drinking water system management and operations - Eligible costs include training and activities that build tribal capacity in the technical, managerial and financial components of running a public water system
Environmental Protection Agency	Drinking Water Act Tribal Set-Aside Program (DWTSA)	Linda Reeves 415-972-3445 www.epa.gov/region09/water/tribal/	- Provides funding to construct infrastructure improvements for public water systems serving federally recognized tribes - Projects addressing the greatest health risks are ranked highest for funding	- Grants for planning, design, and construction of drinking water facilities - Matching funds not required
Environmental Protection Agency	Wastewater Infrastructure (Clean Water Act Tribal Set-Aside Program)	Loretta Vanegas 415-972-3433 www.epa.gov/region09/water/tribal/		- Provides funding for wastewater facilities
Indian Health Service	Sanitation Facilities Construction Program	Phoenix Area IHS Office 2 Renaissance Square 40 North Central Ave, Ste 720 Phoenix, AZ 85004 602-364-5068 http://www.dsfc.ihs.gov/	- Responsible for the delivery of environmental engineering services and sanitation facilities to American Indians	- Provide technical and financial assistance to Indian tribes and Alaska Native communities for the cooperative development and continuing operation of safe water, wastewater, and solid waste systems, and related support facilities
Indian Health Service	Navajo Nation CDBG Funds (received via the chapters)		- Certain capital contributions for construction are received via the Navajo Nation Community Development Block Grant and Capital Improvement Offices. The Navajo Nation CDBG Office submits a Grant Application annually to the USDA Housing and Urban Development for infrastructure projects on behalf of the Navajo Nation Chapters. NTUA receives this funding	

6.2 Water/Wastewater

Agency	Program	Contact Info	Description	Services Offered
			via the Chapters to construct electric distribution systems to extend electric service to the Navajo people. The IHS also receives money from this grant to construct water and wastewater systems for communities.	
Rural Community Assistance Corporation (RCAC)	Environmental Infrastructure Loan Program	3120 Freeboard Drive, Ste 201 West Sacramento, CA 95691 916-447-2854 www.rcac.org	<ul style="list-style-type: none"> - Financing for water and wastewater facility projects - Provide the early funds that small rural communities need to determine feasibility and pay predevelopment costs prior to receiving state and federal program funding. 	<ul style="list-style-type: none"> - Low-interest loans with amortization periods of up to 30 years. Long-term loans are made in communities with a population of 20,000 or fewer. - Preliminary engineering reports, environmental reports, predevelopment (engineering & legal)
USDA Rural Development	Solid Waste Management Grants	AZ state office: Phoenix State Office 230 N. 1 st Ave, Suite 206 Phoenix, AZ 85003 602-280-8701 http://www.usda.gov/rus/water/SWMG.htm	<ul style="list-style-type: none"> - Assistance to reduce or eliminate pollution of water resources and to improve planning and management of solid waste facilities 	<ul style="list-style-type: none"> - Technical assistance and/or training to rural areas with a population of 10,000 or less - Assistance may be provided to enhance operator skills in operations and maintenance, identify threats to water resources and reduce the solid waste stream
USDA Rural Development	Household Water Well System Grant Program	AZ state office: Phoenix State Office 230 N. 1 st Ave, Suite 206 Phoenix, AZ 85003 602-280-8701 http://www.usda.gov/rus/water/well.htm	<ul style="list-style-type: none"> - The Household Water Well System (HWWS) Grant Program provides grants to qualified private non-profit organizations to establish lending programs for household water wells. - Homeowners or eligible individuals may borrow money from an approved organization to construct or upgrade their private well systems. 	<ul style="list-style-type: none"> - The USDA Rural Development will award grant funds to qualified private, non-profit organizations only. The approved organizations must set up a revolving loan program and provide low-interest loans to eligible individuals who own or will own a private well system. The loans may be used to construct, refurbish, and service an individual's well system. - The non-profit organizations applying for the grant funds must contribute at least 10 percent of the HWWS grant to capitalize the revolving loan fund.
USDA Rural Development	Water and Waste Disposal Direct	AZ state office: Phoenix State Office 230 N. 1 st Ave, Suite 206	<ul style="list-style-type: none"> - Help reduce the cost of water and wastewater systems to a reasonable level for users 	<ul style="list-style-type: none"> - Provide direct loans and grants to develop water and wastewater systems, including solid waste disposal and storm drainage, in rural areas with a population of

6.2 Water/Wastewater

Agency	Program	Contact Info	Description	Services Offered
	and Guaranteed Loans	Phoenix, AZ 85003 602-280-8701 Clay Van Daren, 520-524- 2771 www.rurdev.usda.gov		10,000 or less. - Can cover up to 75% of eligible project costs - Maximum term for loans is 40 years
USDA Rural Development	Water and Waste Disposal Grants	AZ state office: Phoenix State Office 230 N. 1 st Ave, Suite 206 Phoenix, AZ 85003 602-280-8701 www.rurdev.usda.gov		- Reduce water and waste disposal costs to a reasonable level for users of the system. - Grants may be up to 75% of eligible project costs
USDA Rural Development	Rural Water Circuit Rider	AZ state office: Phoenix State Office 230 N. 1 st Ave, Suite 206 Phoenix, AZ 85003 602-280-8701 www.rurdev.usda.gov		- Provide on-site technical assistance to help assure cost effective operation of rural water systems
Water Infrastructure Finance Authority (WIFA) of Arizona	Clean Water Revolving Fund	1110 W. Washington, Ste 290 Phoenix, AZ 85007 602-364-1310 www.azwifa.gov	- Provides loan funds to address wastewater and water reclamation facilities including costs for planning, engineering, construction and equipping drinking water facilities, source water protection and land acquisition	- Funds can be used to plan, construct, rehabilitate, modify, improve, upgrade and/or equip and expand wastewater treatment and water reclamation facilities and related water quality projects
Water Infrastructure Finance Authority (WIFA) of Arizona	Drinking Water Revolving Fund	1110 W. Washington, Ste 290 Phoenix, AZ 85007 602-364-1310 www.azwifa.gov	- Provides loan funds to address community water systems including costs for planning, engineering, construction and equipping wastewater treatment facilities, water reclamation facilities and related water quality project and new systems to replace septic - Projects must be on WIFA's priority list which are then classified, ranked and scored	- Funds can be used to plan, engineer, construct, rehabilitate, modify, improve, upgrade, and/or equip drinking water facilities and related water quality projects. Funds may also be used for source water protection and land acquisition - Funding cycles are yearly, and applications are due during the summer of the year for which funding is requested

6.2 Water/Wastewater

Agency	Program	Contact Info	Description	Services Offered
			- Funds administered distributed by Navajo Housing Authority	
Water Infrastructure Finance Authority (WIFA) of Arizona	Technical Assistance	1110 W. Washington, Ste 290 Phoenix, AZ 85007 602-364-1310 www.azwifa.gov	- Provides planning and design loans and grants	- WIFA's Technical Assistance Program assists all eligible systems, to prepare for project construction in circumstances where resources are otherwise limited or lacking

6.3 Housing

Agency	Program	Contact Info	Description	Services Offered
HUD	Indian Community Development Block Grant Program	www.hud.gov One North Central Ave, Ste 600 Phoenix, AZ 85004	- Provides direct grants for use in developing viable Indian communities, including decent housing, a suitable living environment, and economic opportunities, primarily for low and moderate income persons	- Direct grants for housing rehabilitation, land acquisition to support new housing construction, and, under limited circumstances, new housing construction
HUD	Indian Housing Block Grant Program	www.hud.gov One North Central Ave, Ste 600 Phoenix, AZ 85004	- Formula grant that provides a range of affordable housing activities on Indian reservations and Indian areas - IHBG funds are administered by the Navajo Housing Authority	- Direct grants for affordable housing activities which include housing and infrastructure development, housing services, crime prevention, and model activities
HUD	Tribal Housing Activities Loan Guarantee Program		- The purpose of the Title VI loan guarantee is to assist Indian Housing Block Grant (IHBG) recipients (borrowers) who want to finance eligible affordable housing activities, but are unable to secure financing without the assistance of a federal guarantee - The borrower can receive up to five times the amount of the grant for many types of housing	- The Borrower leverages IHBG funds to finance affordable housing activities today by pledging future grant funds as security for repayment of the guarantee obligation. A private lender or investor provides the financing and HUD provides the guarantee to the lender or investor. - The borrower repays the obligation. However, when a

6.3 Housing

Agency	Program	Contact Info	Description	Services Offered
			projects	borrower fails to repay the debt and a default is declared, HUD repays the obligation and will seek reimbursement from the borrower's future IHBG grant funds.
Rural Community Assistance Corporation (RCAC)	Affordable Housing Loan Program	3120 Freeboard Drive, Ste 201 West Sacramento, CA 95691 916-447-2854 www.rcac.org	- Create, improve or expand the supply of affordable housing for communities in the rural West	- Provide the short-term acquisition and predevelopment funds that single family and multifamily affordable housing developers need - Long-term financing for multifamily housing - Loans to acquire sites and develop finished lots for Mutual Self-Help housing
Rural Community Assistance Corporation (RCAC)	Manufactured Housing Loan Program	3120 Freeboard Drive, Ste 201 West Sacramento, CA 95691 916-447-2854 www.rcac.org	- Mobile home park lending	Loans for: - Development (land acquisition, off and on-site construction, on-site improvements) of quality manufactured housing parks - Purchase and renovation of existing manufactured housing parks - Conversions of existing parks to resident ownership either through co-operatives, land trusts or other forms of ownership
Arizona Department of Commerce; Office of Housing and Infrastructure Development	State Housing Fund	Carol Ditmore 602-280-1447	- Funds distributed by the State Housing Fund are a combination of the HOME and Housing Trust Funds. - Program provides funds for both housing in development and pre-development - No offsite infrastructure can be funded through this program - Navajo Nation or tribal housing authority must submit applications on behalf of the chapters	- Funding in the form of loans for the development (new construction and acquisition and/or rehabilitation) of housing for first-time home buyers, rental units and emergency shelters or temporary housing - Grants for development project planning, community housing plans, tenant-based rental assistance program, owner-occupied housing rehabilitation programs, and general administrative funding -Funding cap of \$500,000 for a single entity in one fiscal year

6.3 Housing

Agency	Program	Contact Info	Description	Services Offered
Arizona Department of Commerce; Strategic Finance	Revolving Energy Loan Program	Patty Duff, 602-280-1340	- Tribes can receive Revolving Energy Loans for Arizona for heating/cooling systems, lighting retrofits, purchase and installation of energy-conserving equipment, as well as some elements of new construction	- Energy Audit Loan Program can fund up to \$15,000 depending on the program with a maximum term of 18 months and a fixed interest rate of 7% - Energy Term Loan Program can fund up to 75% of eligible project costs plus up to 100% of outstanding audit loan balance or a maximum of \$500,000 with a maximum term of 7 years and an interest rate of up to 7%
Arizona Department of Housing, Tribal Initiative	Low Income Housing Tax Credits (LIHTC)	Fred Karnas, Director 1110 W. Washington, Ste 310 Phoenix, AZ 85007 602-771-1000 www.housingaz.com/ShowPage.aspx?ID=123	- Promotes the development of affordable rental housing for low-income individuals and families	- Encourages investment of private capital in the development of rental housing by providing a credit to offset an investor's federal income tax liability
Department of the Interior	Housing improvement Program (HIP)	Lloyd Balanger, 505-346-2454	- HIP is a safety-net program that provides grants for the cost of services to repair, renovate, replace, or provide housing. The program provides grants to the neediest of the needy Indian families who live in substandard housing or are without housing and have no other resource for assistance. - A large proportion of grant dollars are used in conjunction with construction related to compliance with the Americans with Disabilities Act	- limited amount of funding each year (between ½ and 1 million dollars) - Funding distributed annually and limited to \$2,500 for repairs, \$35,000 for renovation, and \$70,000 for new home construction
Enterprise Foundation		Jay Marcus, 1-800-624-4298, x2474	- The Enterprise Foundation works with the Navajo Nation on a variety of projects (majority of projects are in NM, but most funding is not tied to a specific geography; all projects are reviewed on an individual basis.)	- Regular activities include working with individual chapters on obtaining tax credits for projects, mortgage financing, and land use planning - Low interest short-term predevelopment construction financing and extended lock-in interest rate financing programs for rental housing construction
Fannie Mae and Navajo	Native American	Mark Vanderlinden, 505-247-9017	- NACLII is a conventional mortgage that may be used for the purchase of a newly constructed	- NACLII is a conventional mortgage which allows a minimum down payment of 3% of the purchase price.

6.3 Housing

Agency	Program	Contact Info	Description	Services Offered
Partnership for Housing	Conventional Lending Initiative (NACLI) & PMI Mortgage Initiative		home on trust land. - PMI Mortgage Initiative is a \$3 million mortgage initiative designed especially for trust land borrowers. This mortgage is available for the purchase of a new home or the purchase and rehabilitation of a previously owned home.	The remaining 2% in down payment funds and closing costs may be provided through the Navajo Partnership for Housing down payment assistance program or from a gift or other nonprofit source - PMI Mortgage Initiative allows for 1% down payment and additional flexibility for borrowers who have had minor credit difficulties in the past. The remaining 2% in down payment funds and closing costs may be provided through the Navajo Partnership for Housing down payment assistance program or from a gift or other nonprofit source.
Housing Assistance Center (HAC)	Rural Seed Money Loans	Susan Peck 415-381-1706 http://www.ruralhome.org/servicesLoans_LoanProducts.php#acquisitions	- HAC provides a variety of loans that must be accessed by the tribe itself - Funds may be used to improve housing and living standards for rural, low and very-low income households, such as creation of subdivisions and new single or multi-family housing units, rehabilitation of existing units, and improved water and wastewater disposal systems in rural communities	- Low-cost financing for to developers of affordable housing in rural communities - Loans must be for projects that include provisions for serving low-income people as defined by federal guidelines - All loans are subject to an initial, discounted 1% service fee and borrowers are responsible for closing costs. The standard lending rate is 5%. Applications may be submitted 10 times per year.
USDA Rural Housing Service	Home Ownership Loans (Section 502)	Alan Watt, 602-280-8755 http://www.rurdev.usda.gov/hs/sfh/brief_rhguar.htm	- Can be received by families in rural communities and can be used to buy, build, improve, repair or rehabilitate rural homes and also to provide water and waste disposal systems	- Loans to people with low or very low incomes who are without decent, safe, and sanitary housing - Loans may be made up to 100% of the RHS appraised value of the site
USDA Rural Housing Service	Rural Housing Loans and Grants (Section 504)	Alan Watt, 602-280-8755 http://www.rurdev.usda.gov/ga/trh504.htm www.rurdev.usda.gov/regs/handbook/hb-1-3550/1chap12.pdf	- The 504 Loan program assists eligible very low-income applicants who are owner/occupants of a modest single family home in a rural area to make repairs to their dwelling. Loan funds are available to improve or modernize a home, or remove health and safety hazards	- Families can receive up to \$20,000 in a loan, grant, or combination loan/grant
Southwest Tribal				

6.3 Housing				
Agency	Program	Contact Info	Description	Services Offered
Temporary Assistance for Needy Families (TANF) Coalition				

6.4 Economic Development

Agency	Program	Contact Info	Description	Services Offered
Arizona Department of Commerce	Rural Economic Development Initiatives	Tom Doyle, REDI Program Manager 602-771-1135 www.azcommerce.com/ComAsst/RuralDev/REDI	<ul style="list-style-type: none"> - Promote economic development in rural areas - Provides direct assistance to rural communities in organizing an economic development program or effort, and evaluating community resources 	<ul style="list-style-type: none"> - Provides technical and matching fund assistance - Matching funds may be used for marketing analyses, transportation studies, housing surveys, strategy planning, tourism studies, computer hardware and software, conferences, special events, labor force surveys
HUD	Indian Community Development Block Grant Program	www.hud.gov One North Central Ave, Ste 600 Phoenix, AZ 85004	<ul style="list-style-type: none"> - Provides direct grants for use in developing viable Indian communities, including decent housing, a suitable living environment, and economic opportunities, primarily for low and moderate income persons - The Navajo Nation receives a limit of \$5 million per year to be utilized for this program 	<ul style="list-style-type: none"> - Wide variety of commercial, industrial, agricultural projects which may be recipient owned and operated or which may be owned and/or operated by a third party
Four Corners Empowerment Zone Corporation	Economic Development for 22 Navajo Communities, Ute, and Hopi Tribes	http://www.rurdev.usda.gov/rbs/ezec/Communit/4corners.html Lorenza Max, Executive Director P.O. Box 3075 Tuba City, AZ 86045 (928) 283-6351	<ul style="list-style-type: none"> - Website does not identify which Navajo Communities are part of Area. Call or E-mail to see if any of the 9 Bennett Freeze Areas are included. 	<ul style="list-style-type: none"> - Resource identification and Leveraging only with identified matching partners. Identifies over \$27 million dollars of committed funding and \$130 million of uncommitted funds for the first two years of project. Strategic plans in Agriculture, Community Facilities, Infrastructure, Early Childhood Education, Health Care, Housing Improvements and Tourism. - Based on 382 square miles in the Four Corners Region.
Tuba City Regional Business Development Office	Western Agency Business Development	PO Box 485 Tuba City, AZ 86045 Ph: (928) 283-3010 Fax: (928) 283-3015 E-mail: western_rbdo@navajo.org		<ul style="list-style-type: none"> - Assistance to individuals and businesses on business planning, Navajo Nation business preference certification, business site leasing and other business related services.

6.5 Natural Resources

Agency	Program	Contact Info	Description	Services Offered
U.S. Fish and Wildlife Service	Tribal Wildlife Grants Program	National Native American Liaison, Patrick Durham 703-358-1728 Region 2 Contact : Joe Early, (505) 248-6602	- Provide funds to federally recognized tribal governments to develop and implement programs for the benefit of wildlife and their habitat, including species of Native American cultural or traditional importance and species that are not hunted or fished	- Grants for technical and financial assistance for development and implementation of programs that benefit fish and wildlife resources and their habitat - Activities may include planning, management, research, studies, mapping, inventories, habitat preservation easements, education - Funds may be used for salaries, equipment, consultants, subcontracts, acquisitions and travel

6.6 Solid Waste Management

Agency	Program	Contact Info	Description	Services Offered
Environmental Protection Agency	Region 9 General Assistance Program (GAP)	EPA Region 9 Office www.epa.gov/region09/waste/tribal/funding		<ul style="list-style-type: none"> - Funding for solid waste implementation projects, including projects to characterize and close open dumps, purchase equipment, characterize sites, and pilot solid waste collection programs

6.7 Brownfields

Agency	Program	Contact Info	Description	Services Offered
Environmental Protection Agency	Brownfields Cleanup and Redevelopment	www.epa.gov/region09/waste/brown/grants		<ul style="list-style-type: none"> - Assessment grants to inventory, assess, conduct planning and community involvement related to brownfield sites; \$200,000-\$350,000 to address hazardous substance sites; \$200,000-\$350,000 to address petroleum sites - Cleanup Grants to clean up brownfield sites; up to \$200,000 per site; 20% match required - Revolving Loan Fund Grants to capitalize a revolving loan fund and to provide subgrants to conduct clean up - Job Training Grants to train residents for future employment in environmental field - Targeted Brownfield Assessments to document environmental conditions at a property under consideration for redevelopment - Technical assistance

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7.0 Appendix

The following appendix items are provided in digital form on CDs appended to this plan. All items below except the nine chapter Community Land Use Plans (CLUPs) are one one CD, and the CLUPs are on the other.

- 7.1 Field Team Assessment Criteria
- 7.2 Chapter Workshop Reports
 - 7.2.1 Bodaway – Gap
 - 7.2.1.1 Workshop 1
 - 7.2.1.2 Workshop 2
 - 7.2.2 Cameron
 - 7.2.2.1 Workshop 1
 - 7.2.2.2 Workshop 2
 - 7.2.3 Coalmine Canyon
 - 7.2.3.1 Workshop 1
 - 7.2.3.2 Workshop 2
 - 7.2.4 Coppermine
 - 7.2.5.1 Workshop 1
 - 7.2.5.2 Workshop 2
 - 7.2.5 Kaibeto
 - 7.2.5.1 Workshop 1
 - 7.2.5.2 Workshop 2
 - 7.2.6 Leupp
 - 7.2.6.1 Workshop 1
 - 7.2.6.2 Workshop 2
 - 7.2.7 Tolani Lake
 - 7.2.7.1 Workshop 1
 - 7.2.7.2 Workshop 2
 - 7.2.8 Tonalea
 - 7.2.8.1 Workshop 1
 - 7.2.8.2 Workshop 2
 - 7.2.9 Tuba City
 - 7.2.9.1 Workshop 1
 - 7.2.9.2 Workshop 2
- 7.3 Project Contact List
- 7.4 Resources
 - 7.4.1 Agency Inquiry
 - 7.4.2 People Team Information Requested
 - 7.4.3 Land Team Information Requested
 - 7.4.4 Agency and Department List
 - 7.4.5 References
 - 7.4.6 Planning Documents Received

- 7.4.6.1 Chapter governance
- 7.4.6.2 ICIP Instructions
- 7.4.6.3 Economic Development
- 7.4.6.4 Fish & Wildlife
- 7.4.6.5 Health
- 7.4.6.6 Public Safety
- 7.4.6.7 Transportation
- 7.4.6.8 Water
- 7.5 Chapter Land-Use Plans (Contained in Separate CD)
 - 7.5.1 Bodaway-Gap
 - 7.5.2 Cameron
 - 7.5.3 Coalmine Canyon
 - 7.5.4 Coppermine
 - 7.5.5 Kaibeto
 - 7.5.6 Leupp
 - 7.5.7 Tolani Lake
 - 7.5.8 Tonalea
 - 7.5.9 Tuba City
- 7.6 Intergovernmental Compact between the Navajo Nation and Hopi Tribe, 2006
- 7.7 Tuba City Disposal Site
- 7.8 IHS Projects in FBFA
- 7.9 Western Agency Roads Committee Requests
- 7.10 Homesite Archaeological Clearance Brochure
- 7.11 FBFA ICIP List – by Chapter
 - 7.11.1 Bodaway-Gap
 - 7.11.2 Cameron
 - 7.11.3 Coalmine Canyon
 - 7.11.4 Coppermine
 - 7.11.5 Kaibeto
 - 7.11.6 Leupp
 - 7.11.7 Tolani Lake
 - 7.11.8 Tonalea
 - 7.11.9 Tuba City
- 7.12 FBFA ICIP List – by Category
 - 7.12.1 Infrastructure / Utilities
 - 7.12.2 Transportation
 - 7.12.3 Community Facilities
 - 7.12.4 Other
- 7.13 Chapter ICIP Lists
 - 7.13.1 Bodaway – Gap
 - 7.13.2 Cameron
 - 7.13.3 Coalmine Canyon
 - 7.13.4 Coppermine

- 7.13.5 Kaibeto
- 7.13.6 Leupp
- 7.13.7 Tolani Lake
- 7.13.8 Tonalea
- 7.13.9 Tuba City
- 7.14 Funding Story – White Mountain Apache
- 7.15 Project Summary Powerpoint
- 7.16 Definitions & Acronyms
- 7.17 Public Comments