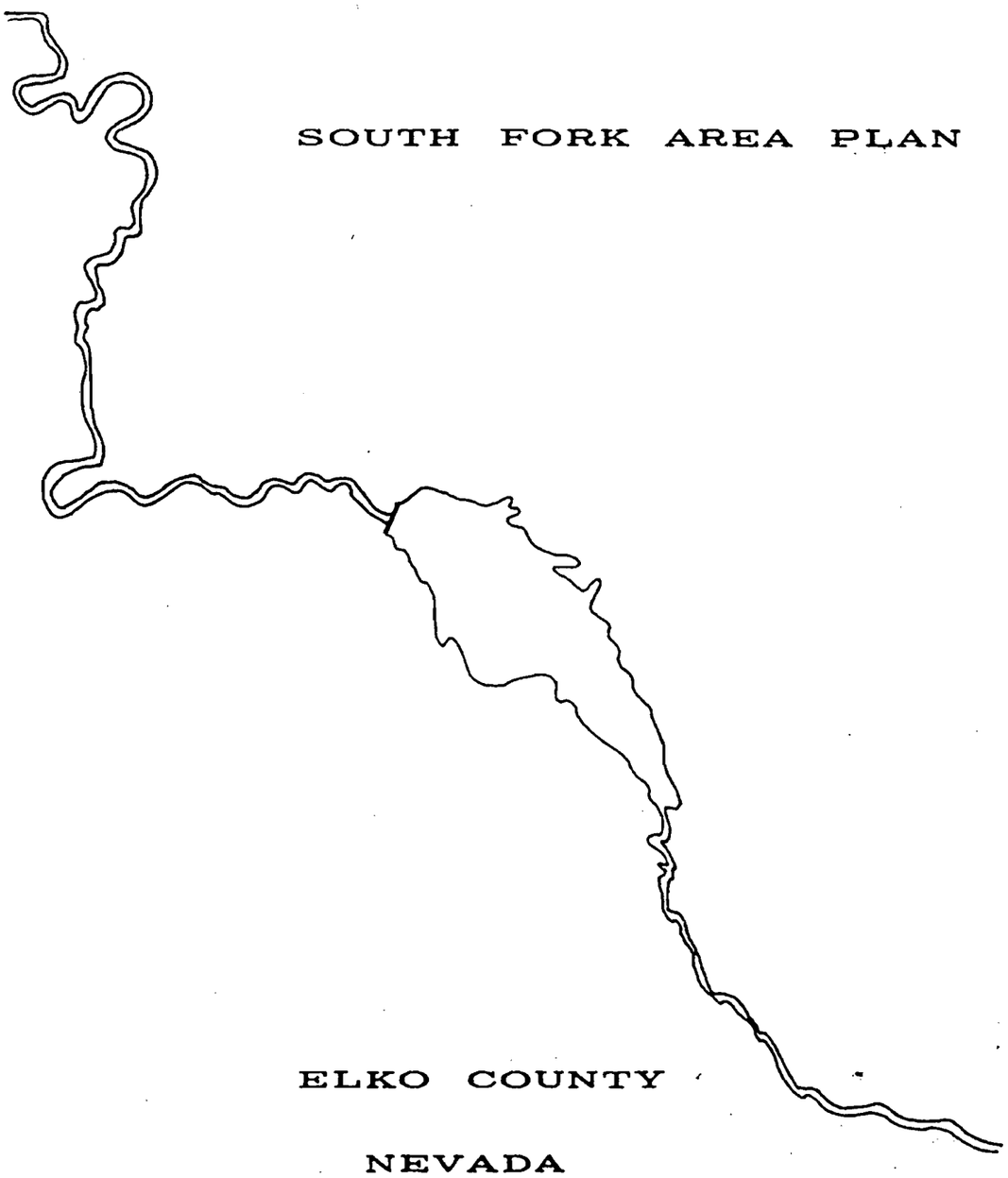
SOUTH FORK AREA PLAN



ELKO COUNTY

NEVADA

AMENDMENT OF SOUTH FORK MASTER PLAN:

Pursuant to Notice 15-2001, conduct a Public Hearing regarding the proposed amendment to the South Fork Master Plan. The current amendment proposed for the South Fork Master Plan was that Lots 1, 2 and 3 of Block 6 and Lots 1 and 8 of Block 8 of Lucky Nugget Ranches, Unit No. 1 be designated as potential commercial sites. The Public Hearing by the Board shall be pursuant to terms and provisions of N.R.S. Chapter 278.

Commissioner Ellison noted that he had family who owned property in Lucky Nugget property and that he supported commercial development in the area. He felt that the commercial property would make the area more marketable. Commissioner Nannini inquired if Commissioner Ellison had property which may be involved. Commissioner Roberts cautioned that it may appear to others there was a conflict of interest for Commissioner Ellison. Commissioner Ellison noted his family members were in opposition of commercial lots but he was in favor of the commercial parcels. Ed Wynes reviewed the public hearings held upon the Master Plan. He stated there were two items of public input one was commercial development and the other was what to do with Western Hills (the size of the lots being irregular). He stated that there were comments from Carl Birdzell and Ed Carter who asked to have their property considered for commercial zoning. He stated that after proceeding through the legal process, the Planning Commission adopted a Resolution stating what property shall be considered as commercial property within the South Fork Master Plan. Commissioner Lloyd inquired if the Master Plan was still open. Ed Wynes noted there was only two issues commented upon. Commissioner Lloyd inquired if after today the Master Plan would be closed. George Boucher stated if the Board was in concert with the Planning Commission then the Master Plan could be closed. Commissioner Ellison inquired about re-opening of the Master Plan. George Boucher stated if the Board acted upon the Planning Commission decision, then if a need occurred they could petition to have the Master Plan opened later.

Ed Wynes noted that when they adopted the 1997 Master plan there was a condition that if there was information from a water study then the Master Plan would be opened to consider action upon that issue. He noted there was a water study being performed and once it was public they would consider re-opening the Master Plan and also discuss the Western Hills size of the lots. Commissioner Russell inquired why Block 8, Lots 4, 3, 2 were not included. Ed Wynes noted that the property owner was not present for representation. He noted that those property owners were notified of the public meetings. Ed Wynes noted staff recommendations were adverse to commercial development with regards to the causeway. Commissioner Roberts inquired if the property owners were aware they would have to apply for a zone change. Ed Wynes replied they were aware of the zoning required and noted there was a time period.

Greg Powell, Elko County Planning Commission member, noted that the State Parks and residents of the region encouraged the commercial zoning in the area to eliminate the added trips to Khoury's. He noted that South Fork had not been exploited.

Snowslide Gulch in the County's name for multiple use. PLUAC had suggested that the Forest Service utilize the money from the Southern Nevada Land Act to place facilities at these locations and make them more accessible to the public. He stated that Snowslide Gulch and Long Canyon were some of the proposed locations. He noted there were 20 locations proposed. Charles Voos stated Donald Decker had reviewed the proposed lists with him and they discussed placing them upon the SLUPAC list. Commissioner Roberts noted this would qualify under the 640 acres set aside for recreation. Commissioner Russell inquired if the County would be obligated to maintain the toilets at the trail heads. Commissioner Roberts stated that funds from the sell of the land under the SNLA would finance the maintenance.

Commissioner Roberts inquired about the Forest Service correspondence regarding the Jarbidge community cleanup. George Boucher noted that last year the Forest Service, the Nevada Division of Forestry and County participated upon the survey and NYTC would provide clean up upon some of the fire hazards in the Jarbidge region.

LEGISLATIVE ISSUES:

Cash Minor stated that Sandy Tedsen opposed the AB 308 bill and she would aid him with preparing an opposition letter to this bill. With regards to AJR 14, Commissioner Lloyd stated it was subject to the Standing Committee Rule 14-1-2 and bill had died. He noted that joint resolution was defeated because of the time period to amend the State Constitution. Commissioner Nannini inquired if it could be attached to another bill.

VIETNAM MEMORIAL WALL:

Robert Stokes inquired if there would be scheduling conflict with the Board's scheduled meetings on Wednesday and Thursday. Commissioner Ellison replied the opening ceremony would be on Tuesday morning and the closing ceremony would be held on Saturday. He stated there would be a candlelight vigil on Wednesday night at 7:00 or 8:00 p.m.

ECEDA PARTICIPATION:

Commissioner Russell stated in view of the County's financial circumstances, he felt the Board should consider their participation in ECEDA and if there were benefits and evaluate the results from ECEDA compared to their own Community Development involvement. He noted that Community Development would be the logical choice because of the new businesses being in contact with that department. He felt that the County should consider incorporating this into the County structure specifically with the current budget restraints.

Chairman Lloyd called a recess at 3:55 p.m.

Kristin McQueary departed the meeting at 4:02 p.m. and Kay Macuil assumed the role of legal council to the Board.

Commissioner Lloyd reconvened the meeting at 4:03 p.m.

Greg Powell stated that commercial property would keep the people in the region and off the roads. He noted that there could not be any more agricultural water designations. He stated there was limited opposition. He noted that the Sheriff's Department could not cover that area in the past which now Sheriff Harris stated that area could be covered.

Charles Armuth, representing Earl Carter, submitted written documentation and pictures depicting the area proposed as a commercial site. He noted that under the State Water Engineer's Order 1120 the State would issue permits for commercial development which uses less than 4000 gallons per day. He stated that Mr. Carter had requested 1800 gallons per day. Charles Armuth noted that Earl Carter had a written petition signed by adjacent residents encouraging the commercial development to that region. Charles Armuth felt it would eliminate traffic and be a convenience to the people in the region and those who visit the recreational area. Kay Macuil stated that the Board could adopt the whole Master Plan as proposed, adopt part of the Plan, or change, or add to the Master Plan. She stated if it was changed or add to, it must be sent back to the Planning Commission. She cautioned that there had to be specific findings stated for the record especially in this case because it only affected two property owners. She noted that facts were given in previous testimony as to why it was in the best interest of the public. She noted that the water supply was limited or unknown, there was an inadequacy on the roads; Earl Carter's land was located upon a dangerous curve; and the possible flooding of the causeway which could strand the citizens. She felt that was sufficient facts to limit the commercial development to those two areas. Kay Macuil noted that upon closing the South Fork Master Plan she suggested they set a specific time to close the South Fork Master Plan. She noted that Spring Creek Master Plan was closed for a five year period. Commissioner Russell requested clarification upon the Board's options from Kay Macuil. He inquired if they adopted the whole plan would it include the amendment and received an affirmative response from Kay Macuil.

MOTION: **Commissioner Russell moved to adopt the amendment to the South Fork Master Plan for Lots 1, 2, and 3 of Block 6 and Lots 1, and 8 of Block 8 of Lucky Nugget Ranches, Unit No. 1 be designated as potential commercial sites the reasons for doing so would be there was legitimate needs within the community for access to commercial facilities for that community as well as for recreational users to utilize those facilities. He stated the reasons for limiting this amendment to those few lots would be that the water supply was limited and the water was already allocated for domestic use upon those particular lots which would not exceed the use of the water. Also, that the roads are limited in size and maintenance so that adopting a plan that includes only a few commercial lots would be reasonable because of the limits of the roads. Also the fact that it would be**

built next to the causeway and limiting the commercial development in that area might be prudent because of that, as well as commercial development would be less hazardous for residential users of those lots. He would like to include in the motion that the Board close the Master Plan for three years. Commissioner Ellison seconded the motion.

The Board discussed the time period of three years. Commissioner Russell stated that it would give time for the commercial development to develop so they could review the progress. Charles Armuth requested clarification upon the closure of the Master Plan. Gary Powell inquired if the individuals could apply for a zoning change. Kay Macuil noted they could apply for the zoning change but the Master Plan gave weight to the Planning Commission's decision. Ed Wynes noted that the three years would give them time to complete the water study.

Commissioners Russell, Ellison, Roberts and Lloyd voted aye. Commissioner Nannini abstained. The motion was passed by majority vote.

MOTION: Commissioner Roberts moved to adjourn the meeting. Commissioner Russell seconded the motion. The motion was passed unanimously.

There being no further business to come before the Board, the meeting was adjourned until May 3, 2001.

APPROVED,
NOLAN LLOYD, Chair

ATTEST:
MARILYN TIPTON, Deputy Clerk

PCR 01-01

A RESOLUTION OF THE ELKO COUNTY PLANNING COMMISSION ADOPTING AN AMENDMENT TO THE MAP AND DOCUMENTS REFERRED TO AS THE SOUTH FORK AREA MASTER PLAN FOR ELKO COUNTY.

WHEREAS, the County of Elko has a need to review the Master Plan for the South Fork Area, and;

WHEREAS, the Elko County Planning Commission has met in regular session to review and discuss aspects of the Master Plan and take public comment regarding that plan; and

WHEREAS, based on information disclosed at the public meetings, the Elko County Planning and Zoning Department has prepared an amendment to the Master Plan for the South Fork Area and presented that plan amendment to the public and the Elko County Planning Commission, and;

WHEREAS, at a regular meeting held on Thursday March 15, 2001 in the Elko County Courthouse Room 105, the Elko County Planning Commission approved the following amendment to the South Fork Area Master Plan;

Lots 1,2 & 3 of Block 6 and Lots 1 & 8 of Block 8 of Luck Nugget Ranchos, Unit #1 are here by designated as potential commercial sites within the South Fork Area Master Plan.

NOW THEREFORE BE IT RESOLVED that the Elko County Planning Commission hereby adopts and directs the placing of the signatures of the Chairperson and Senior Planner on the South Fork Area Master Plan which consists of the following (1) South Fork Master Plan map and document, plus amendments.

PROPOSED by Commissioner Don Marquis

Seconded by Commissioner Jack Boyd

PASSED and ADOPTED this 15th day of March 2001

VOTE:

AYES:	Steve Birnie, Jack Boyd, Don Marquis, Dave Hough, Milt Grisham and Greg Powell
ABSENT:	Mark Wetmore
NAYES:	None

ATTEST:

Edward D. Wynes, AICP
Senior Planner

Milton Grisdam, Vice-Chairman
Elko County Planning Commission

K:\PLANNING\2001\Resolutions\RESOLUTIONS\PCR01-01 South Fork Area Plan.wpd

SOUTH FORK AREA PLAN

January 1990

COMMISSIONERS

ERNIE HALL
DALE PORTER
NORMAN THOMPSON

GEORGE R.E. BOUCHER
COUNTY MANAGER
(702) 738-5398

Board of County Commissioners
ELKO COUNTY COURTHOUSE
ELKO, NEVADA 89801

CERTIFICATION

The Board of County Commissioners of Elko County hereby adopts the South Fork Area Plan, including the Land Use Plan Map, as a comprehensive, long-term guide for orderly growth and development of lands within the plan area.

Furthermore, the South Fork Area Plan, including the Land Use Plan Map, is hereby endorsed and certified as an area master plan adopted for lands surrounding the South Fork State Recreation Area, and is declared to be established to conserve and promote public health, safety and general welfare within the plan area.

BOARD OF COUNTY COMMISSIONERS

By: Ernie Hall
Ernie Hall, Chairman

Date: January 17, 1990

ATTEST:

Karen Vasquez
Karen Vasquez, Clerk

Date: January 17, 1990

ELKO COUNTY PLANNING COMMISSION

ELKO COUNTY COURT HOUSE
ELKO, NEVADA 89801
PHONE 738-5398

August 23, 1989

REPORT

TO: Elko County Board of County Commissioners

FROM: Elko County Planning Commission

SUBJECT: South Fork Area Plan

In response to your request of February 15, 1989, the Elko County Planning Commission met in a workshop session on June 21, 1989, with the State Land Use Planning Agency to discuss possible alternatives that would be more compatible with the available resources, natural constraints, availability of county services, and the rural characteristics of the area within the South Fork Area Plan. Said workshop was duly noticed in accordance with NRS 241.020 as amended by the 1977 Legislature.

In accordance with your request, the Elko County Planning Commission considered possible alternatives during their regularly scheduled meeting of August 23, 1989, and respectfully reports herewith, a recommendation that the South Fork Area Plan be adopted with the following amendments:

1. That all areas designated as ten acres per dwelling unit on the Land Use Plan Map adopted by the Elko County Planning Commission on April 27, 1988, be designated as forty acres per dwelling unit.

Justification. No evidence has been submitted to indicate that there is a greater amount of water available than estimated in Table III of the South Fork Area Plan; the entire plan area is affected by the estimated amount of available water resources; natural constraints, including soil limitations, steep slopes, earth quake hazards, and flood hazards affect certain areas; the availability of services that can be provided to the area by Elko County are limited; and the existing rural characteristics of the area should be retained.

2. That the "Special Area" land use designation be eliminated from the South Fork Area Plan and the Land Use Plan Map.

Justification. The area currently designated as "Special Area" can be protected from development impacts by the forty-acre per dwelling unit designation and specific language in the plan policies.

3. That the "Commercial Recreation" and "Neighborhood Commercial" land use designations be deleted.

Justification. Commercial activities in this relatively close proximity to an urban area should be discouraged, with the exception of those that will be allowed by concession within the South Fork State Recreation Area. Furthermore, the availability of services that can be provided by Elko County are limited, and commercial development within the South Fork plan area could result in law enforcement problems.

4. That the entire text of the South Fork Area Plan be amended to reflect all necessary changes in relation to the deletion of references to commercial land use and to areas designated as ten acres for each dwelling unit.

The aforementioned report was recommended by the following vote.

AYES SHERI KLEIN, WAYNE MARTENEY, ROCHE BUSH , BESSIE WINCHELL, ROBERT STEPHENSON, JOE PETTY

NAYES NONE

ABSENT MIKE NANNINI

ELKO COUNTY PLANNING COMMISSION

Sheri Klein

Sheri Klein, Chairman

Debbie Armuth

Debbie Armuth, Secretary

ELKO COUNTY PLANNING COMMISSION

ELKO COUNTY COURT HOUSE
ELKO, NEVADA 89801
PHONE 738-5398

RESOLUTION NO. PC 19-88

WHEREAS, Chapter 278.170 of the Nevada Revised Statutes provides that the Elko County Planning Commission may prepare and adopt all or any part of a master plan for all or any part of the county; and

WHEREAS, it has been determined that there is a need for a plan that promotes orderly growth and development of the lands surrounding the South Fork State Recreation Area, and that the resources, as well as the health, safety, and general welfare of the public must be protected; and

WHEREAS, the State Land Use Planning Agency provided assistance to the Elko County Planning Commission in conducting public workshops on March 11, June 10, and October 7, 1987, and gathering data to develop the South Fork Area Plan; and

WHEREAS, public hearings on the adoption of the South Fork Area Plan were held on November 4, 1987, March 2, 1988, and April 27, 1988 in the District Court Room of the Elko County Courthouse, Elko, Nevada;

NOW THEREFORE BE IT RESOLVED that the Elko County Planning Commission hereby approved and adopted said South Fork Area Plan, including the Land Use Plan Map, by the following vote on April 27, 1988:

AYES - Roche Bush, Tom Enos, Sheri Klein, Wayne Marteney, Joe Petty, Bob Stephenson, Bessie Winchell

NAYES - NONE

ABSENT - NONE

BE IT FURTHER RESOLVED that the South Fork Area Plan be submitted to the Elko County Board of County Commissioners with a recommendation that said governmental body hold a hearing thereon and adopt said plan as the official South Fork Area Plan of Elko County.

ADOPTED the 27th day of April, 1988.

THOMAS L. ENOS, CHAIRMAN
Elko County Planning Commission

ATTEST:

JULIE WYNNE, SECRETARY

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INTRODUCTION

The Elko County General Plan that was prepared in accordance with NRS 278 provides a basis for regulating development within the county, protecting the resources, and implementing other measures necessary for effective land use planning through the enforcement of a zoning ordinance. Changes in development trends, public demands, and physical changes in the land may, from time to time, cause a need for the development of plans for specific areas.

As plans were being formulated for the development of a reservoir and recreation area along the South Fork of the Humboldt River in the vicinity of its confluence with Tenmile Creek, public interest in developing the area increased, and in the early 1960's the division of large parcels of land became very popular. By the time the lands surrounding the reservoir were acquired for the purpose of developing a state recreation area, property owners in the vicinity began to inquire about a number of recreation-oriented uses, ranging from various types of commercial development to additional single family residential lots.

In keeping with the goals of the General Plan, the Elko County Planning Commission determined that a land use plan for this area would be necessary at this time in order to avoid development that would create a potential for conflicting land uses. At their regular meeting on June 25, 1986, they requested assistance from the Nevada State Land Use Planning Agency in preparing a land use plan for the lands surrounding the South Fork State Recreation Area.

A work program for use as a guideline in developing a land use plan was subsequently prepared for the Planning Commission and accepted. As soon as a geographic boundary for the plan area was established, development of an area plan began.

The South Fork Area Plan was the subject of four public workshops and five public hearings held by the Elko County Planning Commission and the Board of County Commissioners between March 11, 1987, and January 17, 1990. It was officially adopted by the Board at a public hearing on January 17, 1990, as recommended by the Planning Commission.

STATUTORY PROVISIONS

Chapter 321 of the Nevada Revised Statutes addresses state planning of the use of land in Nevada and includes legislative findings and declarations in relation to the role of local governments and the State in the planning process. The findings and declarations identified in NRS 321.640 include the following:

1. that it is in the public interest to place the primary authority for the planning process with local governments;

2. that unregulated growth and development of the state will result in harm to the public safety, health, comfort, convenience, resources, and general welfare;

3. that local governments have a responsibility for guiding the development of areas within their respective boundaries for the common good;

4. that planning must be done in harmony to insure orderly growth and preservation of the state; and

5. as specifically related to the South Fork Area Plan, that State participation in land use planning should be limited to providing assistance to local governments upon request. Additional limitations of State participation in land use planning are defined in NRS 321.640.5.

Chapter 278 of the Nevada Revised Statutes sets forth statutory provisions for local governments to carry out their role in the planning process, including procedures for the adoption of a long-term general plan to serve as a master plan for the physical development of the area within their jurisdiction and implementation of the plan through zoning districts and ordinances.

Chapter 278 of the Nevada Revised Statutes provides the following in relation to regulatory authority of local governments:

> "NRS 278.020 Regulation by governing bodies of improvement of land and location of structures for general welfare.
>
> 1. For the purpose of promoting health, safety, morals, or the general welfare of the community, the governing bodies of cities and counties are authorized and empowered to regulate and restrict the improvement of land and to control the location and soundness of structures.

2. Any such regulation, restriction and control shall take into account the potential impairment of natural resources and the total population which the available natural resources will support without unreasonable impairment."

Specific statutory provisions pertaining to procedural requirements for developing, adopting, and implementing the South Fork Area Plan are provided in the Appendix.

PART I: BACKGROUND TO PLANNING

PLAN AREA

The South Fork Area Plan encompasses approximately 92 square miles that surround and include the South Fork State Recreation Area. The plan boundary is further described as follows:

Township 32 North, Range 55 East, all;

Township 32 North, Range 54 East, Sections 1, 12, 13, 24, 25, and 36;

Township 33 North, Range 54 East, Sections 13, 24, 25, and 36;

Township 33 North, Range 55 East, Sections 13 through 36;

Township 33 North, Range 56 East, Sections 17, 18, 20, 30, and 32, and all of Section 29 except the Northwest quarter;

Township 32 North, Range 56 East, Sections 4 through 9, 16 through 20, Sections 29 through 32, and the West half of Sections 21 and 28.

There are approximately 58,720 acres of land within the plan boundary as shown on in Figure 1. The Vicinity Map (Figure 2) indicates the location of the plan area in relation to Elko County and surrounding areas.

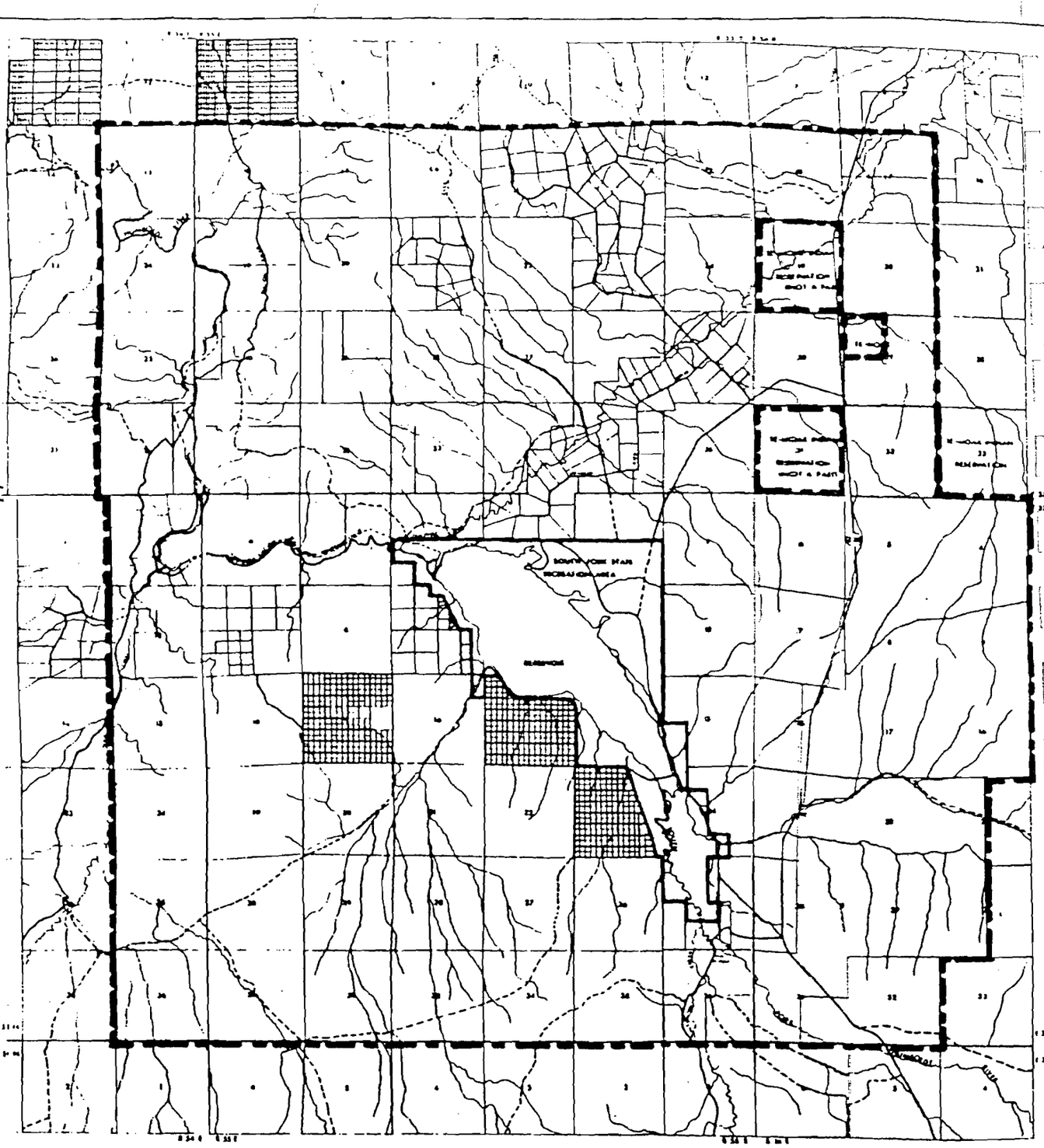
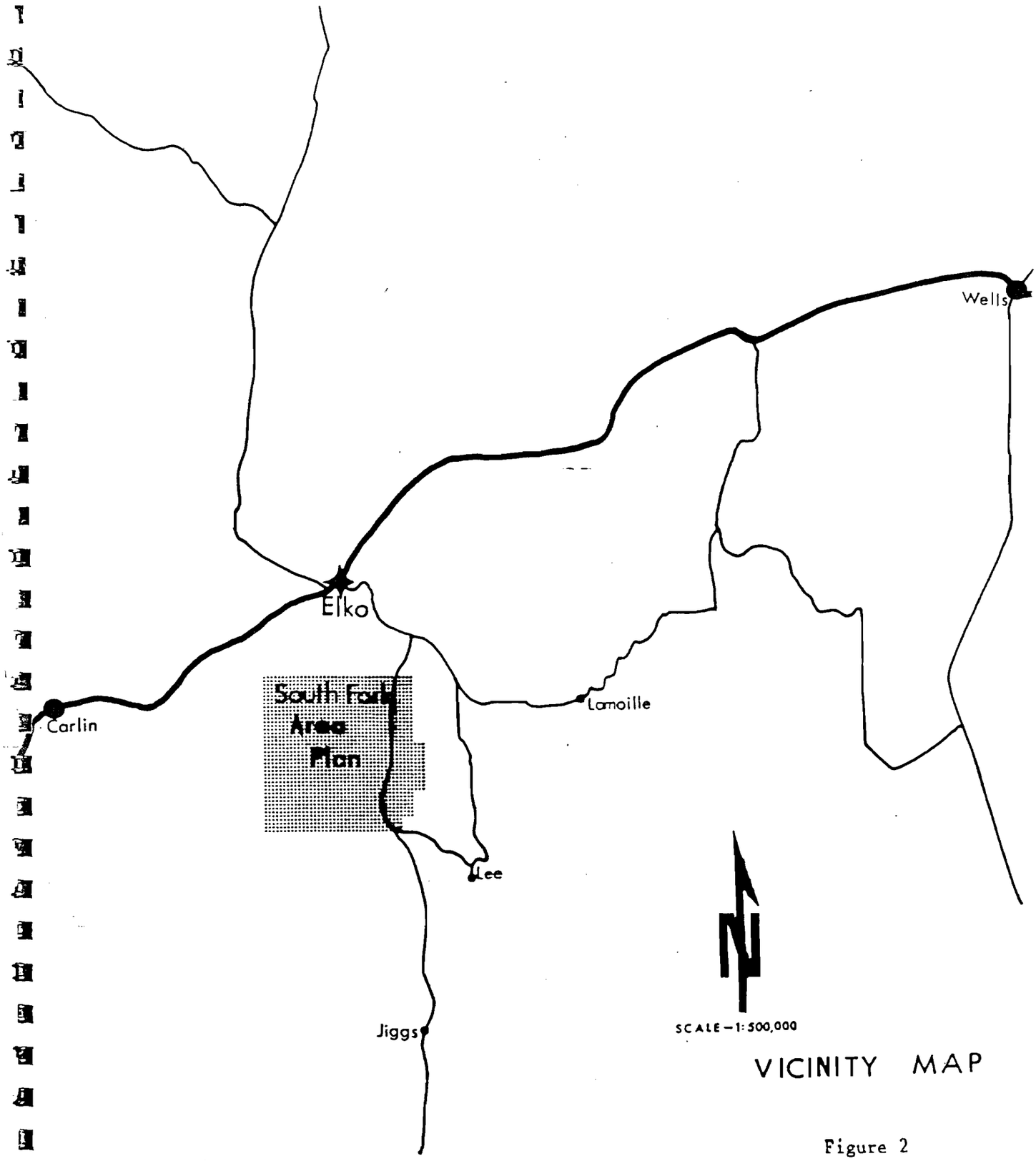

SOUTH FORK AREA PLAN
ELKO COUNTY PLANNING COMMISSION
1" = 8000'
PLAN BOUNDARY

Figure 1



VICINITY MAP

Figure 2

HISTORY

Existing archaeological information indicates that the presumed earliest inhabitants were the Paleo-Indian stage (11,000-12,000 years ago). While no Paleo-Indian sites are known in the area, their major characteristic was that they were primarily big game hunters.

During the same period, there were people in the Great Basin who used various types of large stemmed points. Archaeologists proposed the name of "Western Pluvial Lakes Tradition" for the flaked stone artifacts, and associated the users of these artifacts as Proto-Archaic. The Western Pluvial Lake Tradition represented a hunting-foraging based economy practiced by people who may have camped on or near the shores of receding lakes and along rivers much of the time.

The Archaic stage, which began about 6,000 years ago, was a long and highly successful period of adaption to the Great Basin environment. Commonly divided into two or three time periods by the changes in subsistence, material culture or settlement patterns, the people of the Archaic stage ranged from sedentary villages in the Owens Valley to small hunting groups that foraged over a large territory. Archaeologists postulate a settlement pattern adapted to a foraging/collecting economy, often consisting of a winter base camp, sometimes a secondary summer base camp, and numerous small temporary camps. The arrival of the Euro-American brought the Archaic state to an end; however, their presence is commonly associated with the ancestors of the Western Shoshone and other Numic-speakers.

The Western Shoshone's presence in the area has been postulated by linguists to have resulted from a rapid spread of numic-speaking peoples from the southwest. These people have inhabited the regions surrounding the state recreation area for approximately 1,000 years. Throughout the Great Basin, numic-speaking groups such as the Western Shoshone were known to use various techniques to modify wild plant harvest in addition to hunting and gathering. Today, a branch of the Te-Moak Western Shoshone reside on the South Fork Indian Reservation south of the plan area.

The first white man to see any portion of what is now Nevada, was a company of some forty trappers led by the noted mountaineer, Jedediah Smith in the 1820's. The route of that expedition was through a portion of what is now western Wyoming, down the Humboldt River to the Walker River country and out through what is now known as Walker's Pass and into California. During this time the Hudson Bay Company claimed the region between the Rocky and Sierra Nevada Mountains as their exclusive grounds for trapping. Peter S. Ogden began trapping the region in 1831 and traveled down the Humboldt River (known as Mary's River) following the same route as Smith. Capt. B.L. Bonneville and Joseph Walker also took trapping and exploration trips into Nevada and traveled the area around the Humboldt River during the 1830's. In 1833 Christopher (Kit) Carson along with a Hudson Bay Company expedition also visited the region of the Humboldt River. These were the first explorers

who opened the way across the continent through the Great Basin to California, and were followed by emigrants who sought the western coast as their home.

The first emigrant party to cross Nevada passed through the South Fork area in 1841. The Bidwell-Bartleson party crossed the Ruby Mountains at Harrison Pass and proceeded down the South Fork Canyon to the Humboldt River Valley. This trail, later known as the Hastings Cut-Off of the California Emigrant Trail, was also used in 1846 by the Reed-Donner party. Ironically, almost 30 days of travel time was lost, sowing the seeds for the disaster which overtook them in the Sierras in December of that year.

In the Fall of 1868, the Elko-White Pine Toll Road was built during a boom period in the White Pine Mining District. Passing through the South Fork area, it ran southwest from the old Denver Bridge, over the Humboldt River just west of Elko, to Twin Bridges and then south along the west side of Huntington Valley enroute to Hamilton. The owners, George Sheperd and Frank Denver, had a monopoly over wheeled, horseback and pack train traffic for about six months, until the rival Gilson Toll Road was completed. In August 1882, Elko County purchased the Elko-White Pine Toll Road and made it a public highway. Horse changing and overnight stations were built at intervals along the toll roads and perhaps the most famous was Sheperd's Station at Twin Bridges. Sheperd's Station included a stage station, hotel, bar and dining room. Located just 15-16 miles from Elko, it soon became the place to go for parties, balls, New Year's and Christmas galas, etc. There is some evidence of the presence of a stage station at the Ed Tomera Ranch as well. The structure is reported to have burned down in 1928.

In May 1869, Articles of Incorporation were filed for the South Fork Wood Rafting Company, "for the purpose of rafting logs, timber, lumber and wood on the South Fork of the Humboldt River." According to an article in the Elko Independent on July 17, 1869, the company was engaged in clearing and preparing the South Fork channel for log drives, though little else apparently ever came of this enterprise.

There are three historic ranch complexes in the South Fork area that have had agricultural activities since before the turn of the century and serve as examples of Western U.S. ranching history. All three ranch areas are within the state recreation area and will either be partially or completely inundated by the reservoir. Historic structures, farm implements/equipment and other memorabilia will be preserved as much as possible for use as part of a Cultural Resource Visitor Center.

Interest in developing a reservoir on the South Fork of the Humboldt River was initiated in 1938 when Congress passed the Flood Control Act, which authorized site feasibility studies for dams and reservoirs. A report entitled "Humboldt River and Tributaries, Nevada" was prepared by the U.S. Army Corps of Engineers (Corps) and submitted to Congress in 1950; an improvement plan was subsequently authorized. The objective of the plan was to increase flood control and maximize water conservation throughout the basin. The plan included the construction of several dams on tributaries of the Humboldt River, but the one relevant to the South Fork Area Plan was a dam across the South

Fork of the Humboldt at its confluence with Tenmile Creek. The construction of this dam would have resulted in a 120,000 acre-foot reservoir (Hylton Lake) with a surface area of 3,750 acres.

As interest in the reservoir project grew, the Elko County Fair and Recreation Board determined that the project was significant for residents as well as non-residents, and they began setting aside funds for future development of the project. The Hylton Lake Portion of the Humboldt River project also generated a strong interest in developing private lands near the site of the proposed reservoir, and by 1963, four sections of land had been subdivided into 872 individual lots knows as the Lucky Nugget Ranches Subdivision. One section with 256 lots was later reverted to acreage, and 7 lots were included in the 3,354 acres of private land that was eventually purchased by the Elko County Fair and Recreation Board and acquired by the state as part of the state recreation area.

The Corps continued to prepare studies and update construction costs and economic feasibility of the project. Recreational aspects of the project were eventually included in the studies, but some of the sites were dropped. The Nevada Legislature became involved in 1973 by supporting the project. They directed state agencies to cooperate with the Corps and funded an engineering an environmental study of the project. The April 1974 study concluded that the project was still viable.

By February 1975, private lands that included all or portions of nine sections had been divided into 101 additional parcels, known as the Western Hills Subdivision. There has been a continuous interest in creating additional residential lots, and when this plan was developed, there were 778 parcels within the 92 square-mile plan area that were 40 acres or less in size.

Final involvement in the Humboldt River project by the Corps ended in 1981. Feasibility alternatives had been investigated in greater detail and documents had been drafted, but no action was taken by the Corps.

The Elko County Fair and Recreation Board continued to pursue their interest in the South Fork reservoir. In 1982, they had a report done on the feasibility of developing a small recreational reservoir near the Hylton site. The report concluded that a 40,000 acre-foot reservoir would cost between 16 and 20 million dollars. Acting on that report, they had preliminary design recommendations developed. Subsequently, legislation was passed in 1983 that provided state participation in the project and funding through the issuance of state revenue bonds.

Senate Bill 153 of the 1983 session of the Nevada Legislature (Nevada Statutes, Chapter 479) authorized the Director of the Department of Conservation and Natural Resources to enter into a contract with the Elko County Recreation Board for the construction of a dam on the South Fork of the Humboldt River and the creation of a state park in the surrounding area.

The legislation further provided for the issuance of state general obligation bonds which included the design for the state park, with matching funds from the Elko County Recreation Board. Payment of the bond debt included joint participation by the Elko County Recreation Board and the State of Nevada. Funds were allocated for engineering design studies, development of the recreation master plan, and land acquisition.

The master plan was finalized for the Elko County Recreation Board in September, 1984.

Source of Information: **South Fork State Recreation Area Master Plan, and the Elko County Assessor's Office - 1986**

NATURAL FEATURES

TOPOGRAPHY

The terrain within the South Fork Area Plan ranges from steep slopes to relatively flat land. The highest elevation is a 6,307 foot peak located in the Elko Mountains near the northern plan boundary, and the lowest is the 5,060 foot canyon floor along the northwestern boundary.

Approximately 15 percent of the 92 square mile area has slopes in excess of 25 percent. The majority of those areas are located in the western portion of the plan area as shown in Figure 3. The steeper slopes form the bluffs and canyon walls that range from 5,060 feet to nearly 5,800 feet in elevation and provide the channel for the South Fork of the Humboldt River as it flows westerly from the reservoir. As the river is joined by Dixie Creek near the western boundary of the plan area at the base of Grindstone Mountain, it begins to flow northerly through the South Fork Canyon until it meanders out of the plan boundary toward its confluence with the main channel of the Humboldt River, midway between Elko and Carlin.

Approximately 46 percent of the land within the plan boundary ranges from being relatively flat to gentle slopes of about 10 percent. Most of the lands within this slope classification are located in the White Flats area and blend into the State Recreation Area. The remaining 39 percent with slopes ranging from 10 to 25 percent is rolling hills and bluffs that overlook the reservoir.

SOUTH FORK AREA PLAN

LEGEND

- State Recreation Area
- Areas of Slope in Excess of 25%
- Plan Boundary

ELKO COUNTY PLANNING COMMISSION
SLOPE CLASSIFICATION
WITHIN PLAN BOUNDARY
Figure 3

Prepared by the State Land Use Planning Agency

GEOLOGY

The geological information that has been made a part of the South Fork Area Plan does not include the entire plan area. Mapped information was available only for the western half, as shown in Figures 4 and 5. The general areas of the various geological formations are shown in Figure 4 with identifying designations used on the source map. Figure 5 indicates the general area of fault lines. Geological formations within the plan area are briefly described below, with the general area of each formation shown in Figure 4.

The Alluvium and Colluvium (Holocene and Pleistocene) generally occurs in the plan area at elevations below 5,300 feet. This formation consists of silt, sand, and gravel that is found along the streams and as slope wash. The general location of this formation is shown in Figure 4 as Qal.

Nearly all of the area between 5,300 and 5,600 feet consists of the Gravel, Sand, and Silt (Holocene and Pleistocene) formation, which is nontuffaceous deposits on alluvial benches and terraces. This comprises a major portion of the plan area, and is shown in Figure 4 as Qg. According to the source of information, this formation commonly has a thickness of 20 to 60 feet.

Adjacent to the previously described geological formation on the south side of the South Fork River is the Moleen Formation (Middle and Lower Pennsylvanian). This formation consists of limestone, silty and sandy limestone, chert, and conglomerates. It is also present on the north side of the river for approximately one mile. This formation is shown in Figure 4 as IPm. According to the source of information, this formation has a thickness of 1,200 to 1,600 feet. At the higher elevations of this same general area, the Humboldt Formation is present. This is tuff, vitric ash, tuffaceous siltstone and sandstone, conglomerates, limestone, and some diatomite. This formation is shown in Figure 4 as Th, and according to the source of information, has a thickness of about 1,900 feet.

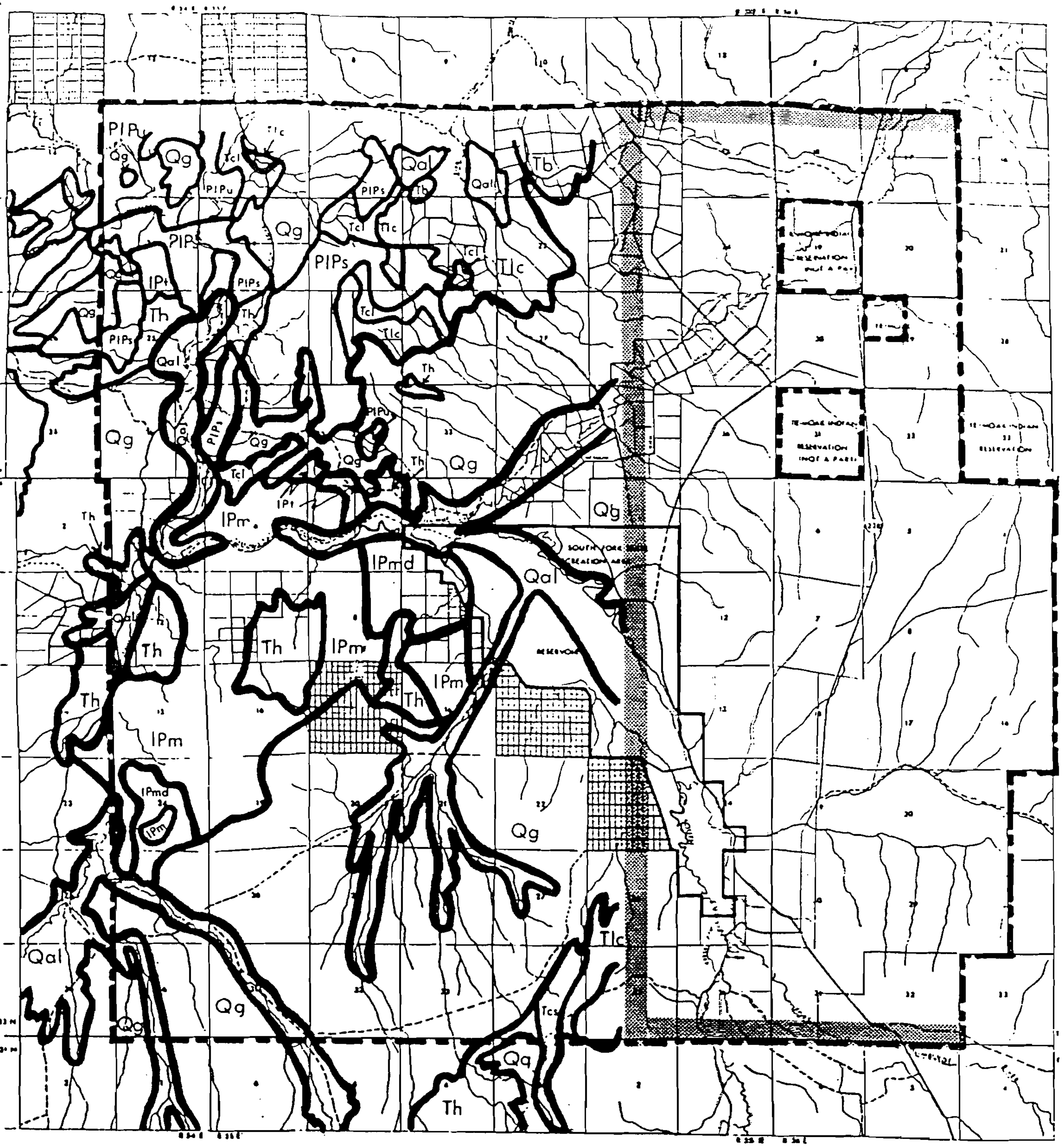
The approximate location of a fault line on the south side of the river provides the boundary for another geological formation that extends to the nontuffaceous deposits previously described as Qg. This is the Diamond Peak Formation (Lower Pennsylvanian and Upper and Lower Mississippian), which is a conglomerate of mostly chert and quartzite, sandstone, marl and shaly beds, limestone, and lenticular units. This formation is shown in Figure 4 as IPmd, and according to the source of information, has a thickness of 4,700± feet.

Much of the area north of the state recreation area that is between 5,600 and 5,800 feet in elevation is a Cherty Limestone Formation (Eocene), and is shown in Figure 4 as Tlc. According to the source of information, this formation has a thickness of 1,000 feet. At the higher elevations, this formation is generally adjacent to a Strathearn Formation (Lower Permian and Upper Pennsylvanian), an Andesite and Basalt Andesite Formation (Upper Miocene), or a Limestone and Limestone-Clast Conglomerate Formation (Eocene?). The Strathearn Formation is a sandy limestone, calcareous siltstone, crossbedded sandy and pebbly limestone, and quartzite and chert-clast conglomerate. It is shown in Figure 4 as PIPs, and according to the source of

information, has a thickness of 1,200 to 2,00 feet. The Andesite and Basalt Andesite Formation consists of dense and aphanitic flows, and according to the source of information, has a thickness of about 1,000 feet. It is shown in Figure 4 as Tb. The Limestone and Limestone-Clast Conglomerate Formation is a dense conglomerate of pebble to boulder sized clasts of mostly carbonate rocks derived form nearby Paleozoic formations. According to the source of information, the maximum measured thickness is 635 feet. This formation is shown in Figure 4 as Tcl.

The northwestern portion of the plan area, where several fault lines are located, is comprised of all of the formations previously described, with the exception of Tb and IPm. An additional formation that is significantly present in this same area is the Main Body of an Undivided Upper and Lower Permian and Upper Pennsylvanian Rocks. It is a thin-bedded calcareous siltstone and sandstone, limestone, dolomite, and conglomerates. This formation is shown in Figure 4 as PIPu, and according to the source of information, has a thickness of 4,000± feet. Another formation in this area not previously described is the Tomera Formation (Middle Pennsylvanian). This formation is interbedded and interfingering limestone and siliceous-clast conglomerate, and according to the source of information, has a thickness of 1,200 to 1,600 feet. It is shown in Figure 4 as IPt.

Source of Information: **Geological Map of the Carlin-Pinon Range Area, Elko and Eureka Counties, Nevada, prepared in 1978 by the Department of the Interior, U.S. Geological Survey, in cooperation with the Nevada Bureau of Mines and Geology.**



LEGEND

Boundary of Geological Formations

Geological Information Unavailable

SOUTH FORK AREA PLAN

ELKO COUNTY PLANNING COMMISSION

GEOLOGICAL FORMATIONS
WITHIN PLAN BOUNDARY

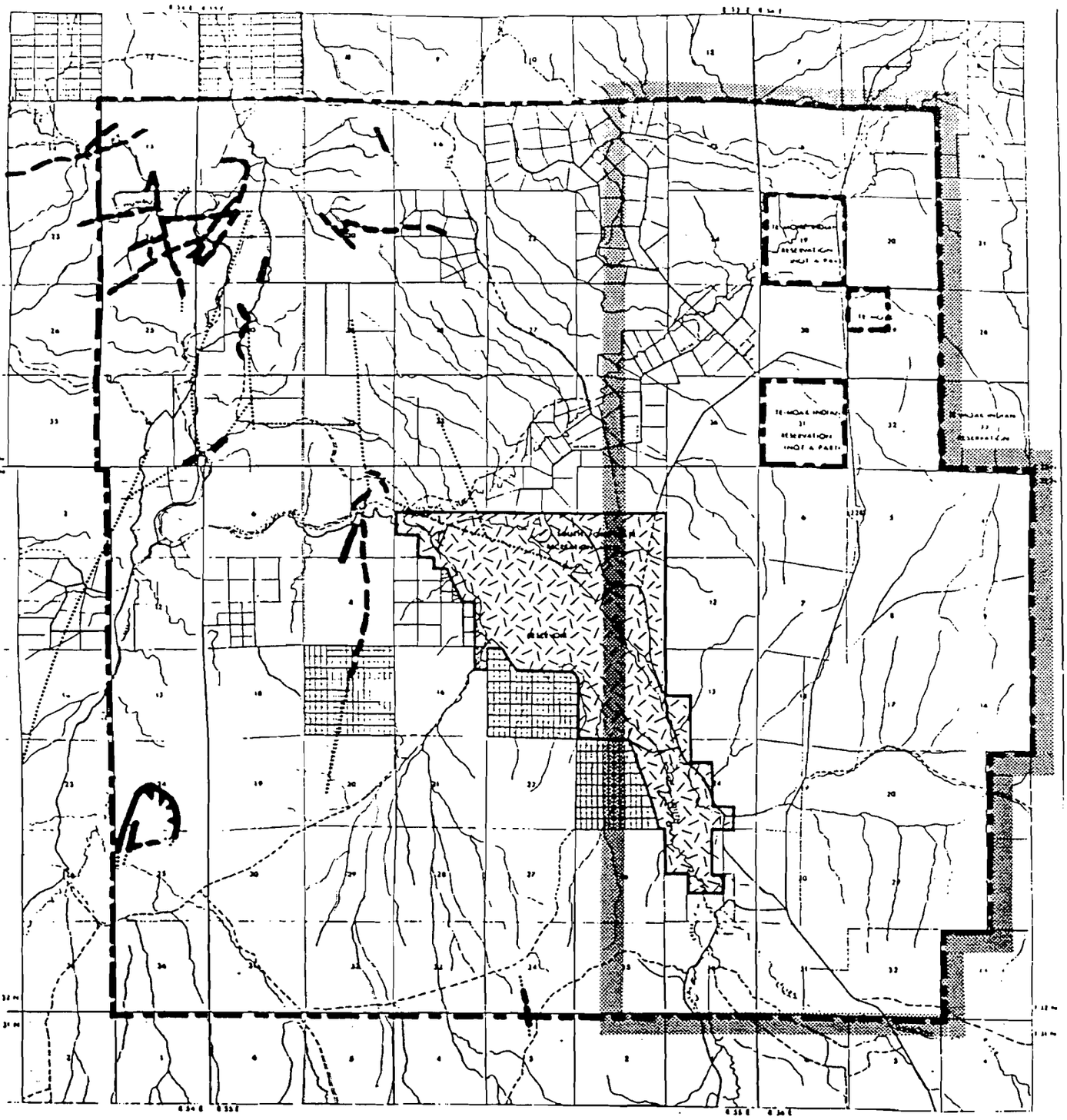
N

Figure 4

1" = 8000'

Prepared by the State Land Use Planning Agency

PLAN BOUNDARY



State Recreation Area
Approximate Fault Locations
Concealed Fault Locations
Thrust Fault Location
Geological Information Unavailable

SOUTH FORK AREA PLAN

ELKO COUNTY PLANNING COMMISSION

EARTHQUAKE FAULT LOCATIONS
WITHIN PLAN BOUNDARY

Figure 5

N

1" = 8000'

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PLAN BOUNDARY

SOILS

Characteristics and limitations of the 22 major soil associations within the South Fork plan area as shown in Figure 6 are very diverse and therefore cannot be readily summarized. For purposes of developing the South Fork Area Plan, information regarding soils was obtained from the Soil Conservation Service of the U.S. Department of Agriculture. This information was separated into various categories that include physical location, soil depth, and soil characteristics for each major soil association within the plan area. This information is summarized in the Appendix as Tables VIII, VIX, and X. Table XI in Appendix provides a brief definition of each major soil association.

The survey from which this information was obtained is referred to as an "Order III" survey that is a reconnaissance report prepared primarily from photo interpretations and soil associations that have been grouped with other soil types with similar characteristics. More specific information would have to be obtained through on-site investigations of specific areas.

Many of the soil associations within the plan area have severe limitations as indicated in Figure 7, Soil Limitations. Table I summarizes the types of severe limitations that occur in each subseries of a particular soil association. Table II summarizes the types of severe limitations that are intermingled with limitations of a lesser degree. Those in the latter category cannot be mapped until on-site investigations are conducted, because it is not possible to define the boundaries of the individual subseries within the major soil associations.

A soil rating system is used by the Soil Conservation Service in order to help engineers, planners, and others understand how soil properties influence behavior when used for engineering purposes. Ratings are confirmed by those familiar with that soil and by the experience of users. If the performance of the soil is not consistent with the estimates, then the ratings need to be validated by field observations of the behavior of the soil. Local and state cooperating agencies are enlisted to obtain such supporting data.

Soils are rated in their "natural" state, which means that no unusual modification of the soil site or material is made other than that which is considered normal practice for the rated use. Only the most restrictive features are listed. In rating soils for engineering uses, it is important to remember that engineers and others can modify soil features or can design or adjust the plans for a structure to compensate for most degrees of limitations. Most of these practices, however, are costly. The owner may be willing to live with a few limitations, provided that the use does not violate local ordinances or regulations. The final decision in selecting a site for a particular use is a personal one and generally involves weighing the costs for site preparation and maintenance.

According to the Soil Conservation Service rating system, a "severe" rating is given to soils that have one or more properties unfavorable for the rated use, such as steep slopes, bedrock near the surface, flooding, high shrink-swell potential, a seasonal high water table, or low strength. This degree of limitation generally requires major soil reclamation, special design, or intensive maintenance. Some of these soils, however, can be improved by reducing or

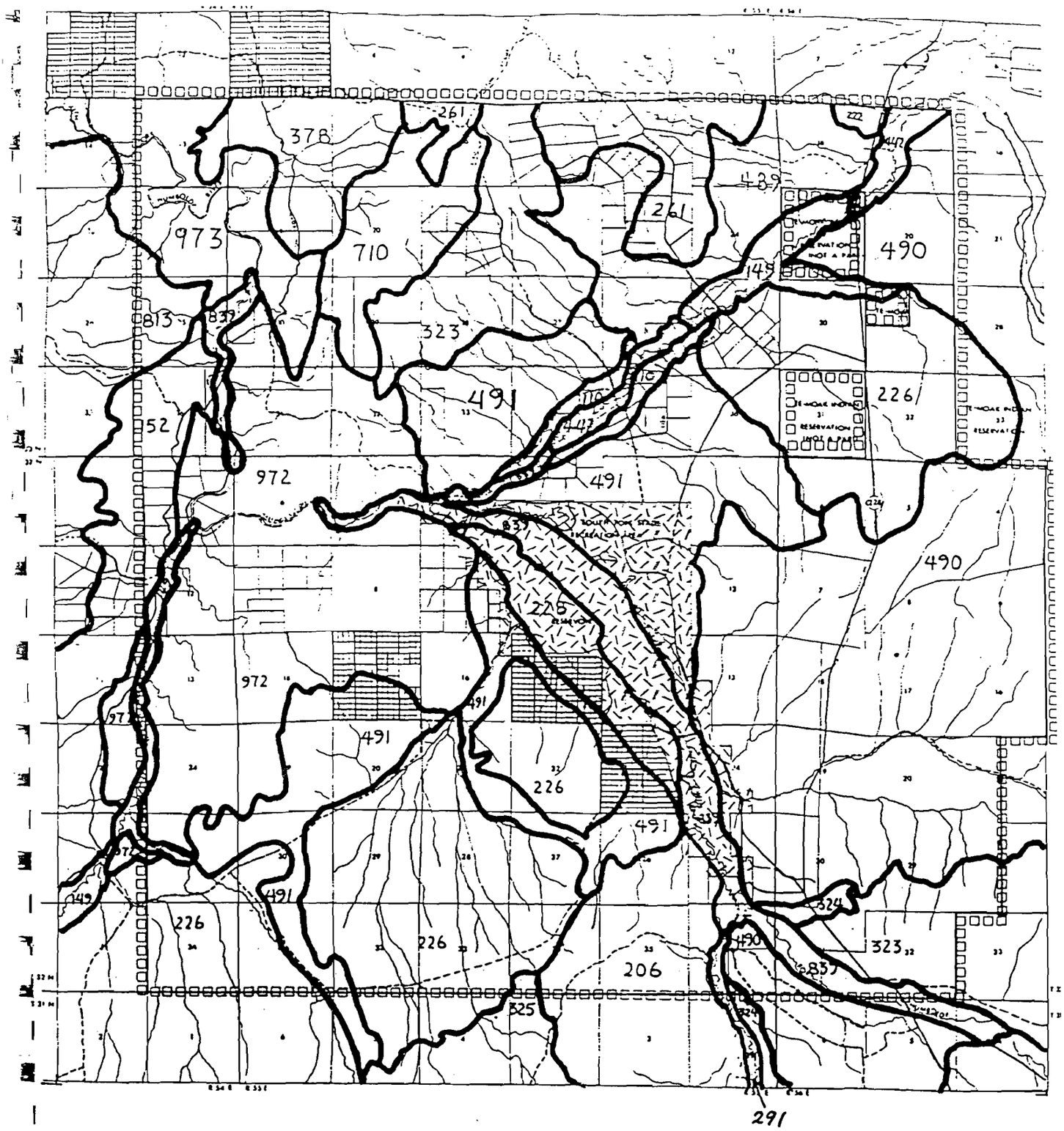
removing the soil feature that limits use, but in most situations, it is difficult and costly to alter the soil or to design a structure so as to compensate for a severe degree of limitation.

When ratings are made by the Soil Conservation Service in relation to septic tank absorption fields, only the soil between depths of 24 and 60 inches are considered. Consideration is given to the affect of soil limitations and site features on the absorption of the effluent, construction and maintenance of the system, and public health. Limitations and site features that affect the absorption of the effluent are permeability, depth to a seasonal high water table, depth to bedrock, cemented pan, and susceptibility to flooding. Stones, boulders, and a shallow depth to bedrock, or a cemented pan interfere with installation. Excessive slope may cause lateral seepage and surfacing of the effluent in downslope areas. Also, soil erosion is a hazard where absorption fields are installed in sloping soils.

Some soils are underlain by loose sand and gravel or fractured bedrock at a depth less than 4 feet below the distribution lines. In these soils the absorption field may not adequately filter the effluent, particularly when the system is new, and as a result the groundwater supply may be contaminated. Soils that have a hazard of inadequate filtration are given a severe rating.

Percolation tests used to evaluate soil suitability for septic tank absorption fields should be performed during the seasons when the water table is highest and the soil is at minimum absorptive capacity. The percolation rates do not correspond to the permeability rates because they are measured by different methods. Experience indicates that soils that have a percolation rate faster than 45 minutes per inch function satisfactorily, soils that have a rate between 45 and 60 minutes per inch have moderate limitations, and soils that have a rate slower than 60 minutes per inch have severe limitations.

Source of Information: **Soil Conservation Service, U.S. Department of Agriculture**



LEGEND

State Recreation Area

Boundary of Major Soil Associations

Plan Boundary

SOUTH FORK AREA PLAN

ELKO COUNTY PLANNING COMMISSION

MAJOR SOIL ASSOCIATIONS
WITHIN PLAN BOUNDARY

Figure 6

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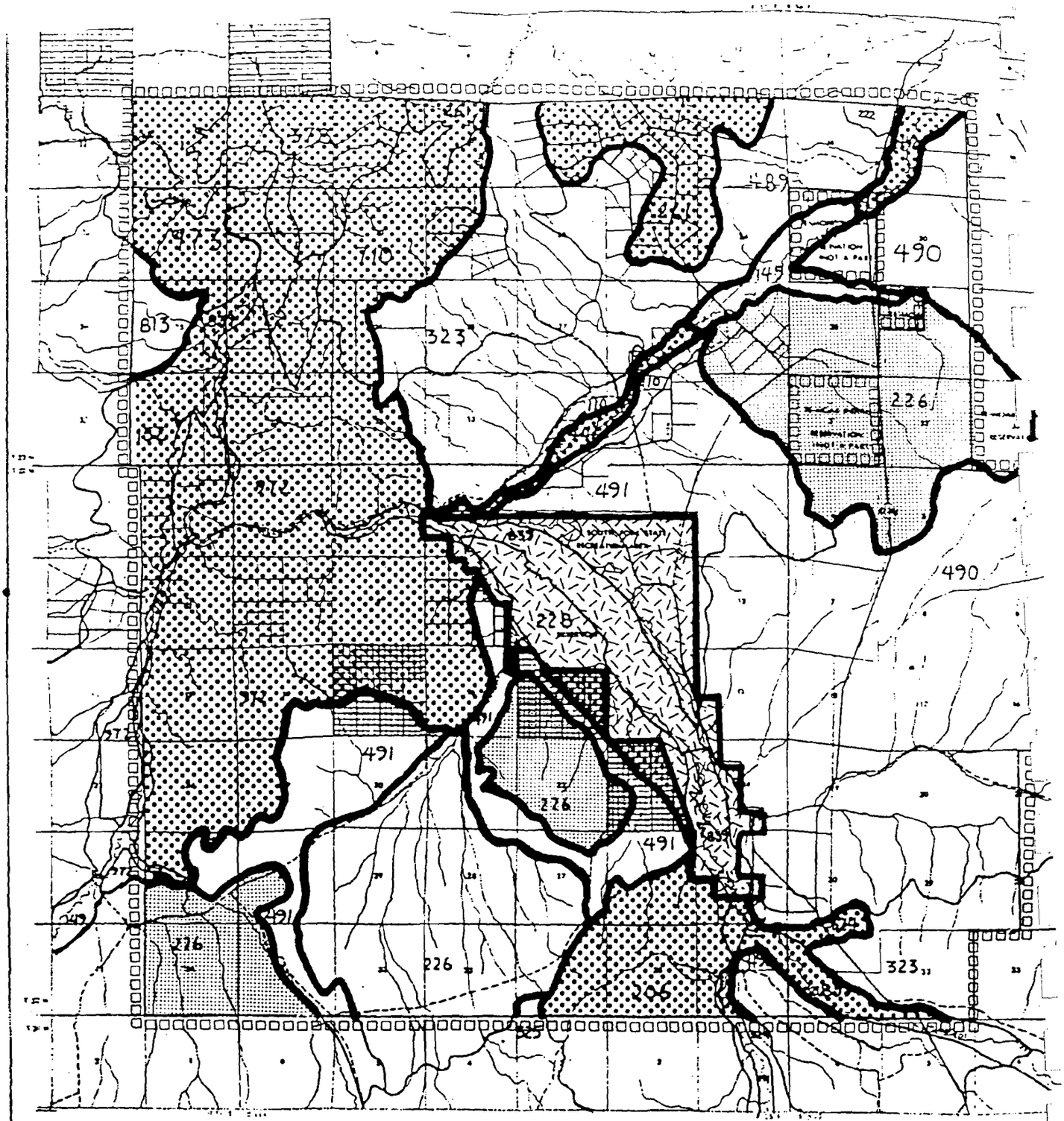


LEGEND

State Recreation Area

Soils with Severe Limitations in all Associations

Soils with Severe Limitations Primarily for Percolation

Soils with Severe Limitations Intermingled with Limitations of a Lesser Degree

□□□□□□□ Plan Boundary

SOUTH FORK AREA PLA

ELKO COUNTY PLANNING COMMISS

SOIL LIMITATIONS

WITHIN PLAN BOUNDAR

Figure 7

Prepared by the State Land Use Planning Ag

TABLE I

SUMMARY OF SEVERE SOIL LIMITATIONS

Soil Classification	Floods	Wetness	Cemented Pan	Depth to Rock	Slope	Low Strength For Roads	Erodes Easily	Shrink Swell	Percs Slowly
152			a	c	b,c		a		b
206				a,b,c	a,b,c	b	b		
226							a,b		a,b
261				a,b,c	a,b,c	a,c			b,c
291	a,b	a					a,b		b
324				a,b	a,b	a	a		
442	a,b					a,b	b	a,b	a,b
710				a	a,b				
839	a,b,c	a,b,c				a,c	b,c		a,c
972			c	a	b		c		
973				a	a				

TABLE II

SUMMARY OF SEVERE SOIL LIMITATIONS
INTERMINGLED WITH LIMITATIONS
OF A LESSER DEGREE

Soil Classification	Floods	Wetness	Cemented Pan	Depth to Rock	Slope	Low Strength For Roads	Erodes Easily	Shrink Swell	Percs Slowly
110	b	b				b	a,b,c		a,b
149	a								a,b
222				c	c		a		a,b
228	b					b	a,b		a,b
323				a	a		b,c		b
325			b	a	a				c
378			a,b		b				c
489			a,c					a,b	a,b
490			b		c				
491				b	b				
813			a,c		a				

NOTE: See Table XI for description of soil series a, b, and c.

DRAINAGE AND FLOOD PLAINS

Drainage within the South Fork plan area is collected by Huntington Creek, Dixie Creek, and Tenmile Creek, all of which flow into the South Fork of the Humboldt River within the plan boundary.

Huntington Creek and the South Fork of the Humboldt River flow into the plan area at the extreme southern boundary. Huntington Creek then joins the South Fork River in the Twin Bridges area, which is approximately one mile from the plan boundary. These two drainages collect runoff from only approximately 2,000 acres within the plan area.

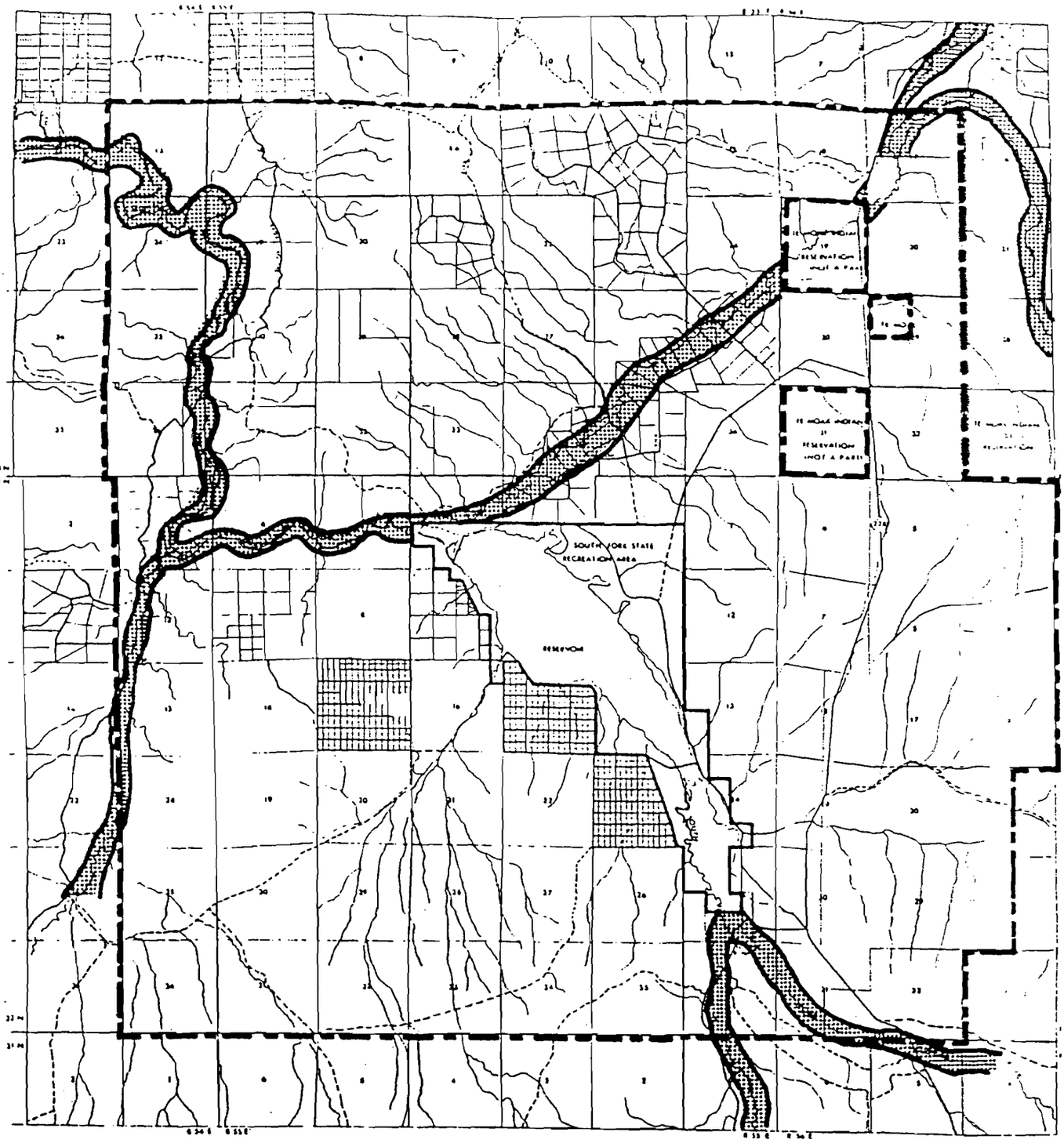
Tenmile Creek enters the plan area through the extreme northeastern boundary, flowing through the Western Hills Subdivision and into the South Fork River at a point approximately one-half mile east of the dam structure. Dixie Creek flows along the western plan boundary, into the plan area, and then flows into the South Fork River as it forms a horse-shoe bend and begins to flow in a northerly direction. These two creeks and the river collect drainage from the remainder of the plan area.

Approximately 1,870 acres along these drainage collectors have been identified by the Federal Emergency Management Agency as being flood prone and have been designated on the official flood maps of that agency as "Areas of Special Flood Hazard." Those acreages are summarized as follows:

Drainage Area	Approximate Acres
Huntington Creek-South Fork Area	500
Dixie Creek	100
Tenmile Creek	600
South Fork of the Humboldt River	700
Total	1,900

As set forth in Title 44 of the Code of Federal Regulations, the Federal Emergency Management Agency (FEMA) administers the National Flood Insurance Program. This program provides a means of making flood insurance available to owners of property that has been identified as being prone to flooding. In order for flood insurance to be available, however, the community in which the property identified as flood prone is located must participate in the program, as Elko County does. One of the stipulations that FEMA places on a participating community is the promotion of better flood plain management through ordinances and building codes that meet certain criteria as set forth by federal regulations. The purpose of the National Flood Insurance Program is to carry out national goals of minimizing the loss of lives, property, and natural resources due to flooding.

Those areas that have been identified by FEMA as "Areas of Special Flood Hazard" are shown in Figure 8.



LEGEND

Areas of Special Flood Hazard as Identified by the Federal Emergency Management Agency

PLAN BOUNDARY

SOUTH FORK AREA PLAN

ELKO COUNTY PLANNING COMMISSION

AREAS OF SPECIAL FLOOD HAZARD WITHIN PLAN BOUNDARY

Figure 8

1" = 8000'

Prepared by the State Land Use Planning Agency

CLIMATE

The climate in the vicinity of the South Fork Area Plan is semi-arid, with sub-zero winter temperatures and hot, dry summers. January is the coldest month with an average of 23.3°. The coldest temperature recorded is -43° in January 1937. July, the warmest month has an average daily maximum of 90.4°, and a minimum of 48.6°. Maximums of 102° have been recorded. Because of the dry, clear air, night time radiation occurs causing wide ranges in daily temperatures.

The average annual precipitation is 9.73 inches, with the heaviest amounts falling as snow during winter months. Average annual snowfall is about 36 inches. December has an average snowfall of 9.8 inches, with a maximum snowfall of 31.2 inches recorded in December 1955. The maximum 24 hour snowfall was 16.7 inches in January 1951. Summer precipitation occurs mostly as showers and does not contribute greatly toward vegetative growth; therefore, irrigation is necessary to sustain crops. The driest month is July with an average of .35 inches.

The average number of days with clear skies is 131, 100 days are partly cloudy, and 134 are cloudy. The prevailing wind is from the southwest and is the strongest in the late winter and spring. Average wind speed is 6.0 miles per hour.

The climatology information is based on data that has been gathered at the Elko Weather Station since November 1930. The station is located at the Elko Municipal Airport, which is approximately the same elevation as the reservoir site. Conditions within the plan area may vary, according to elevation and micro-climatic conditions.

Source of Information: South Fork State Recreation Area Master Plan

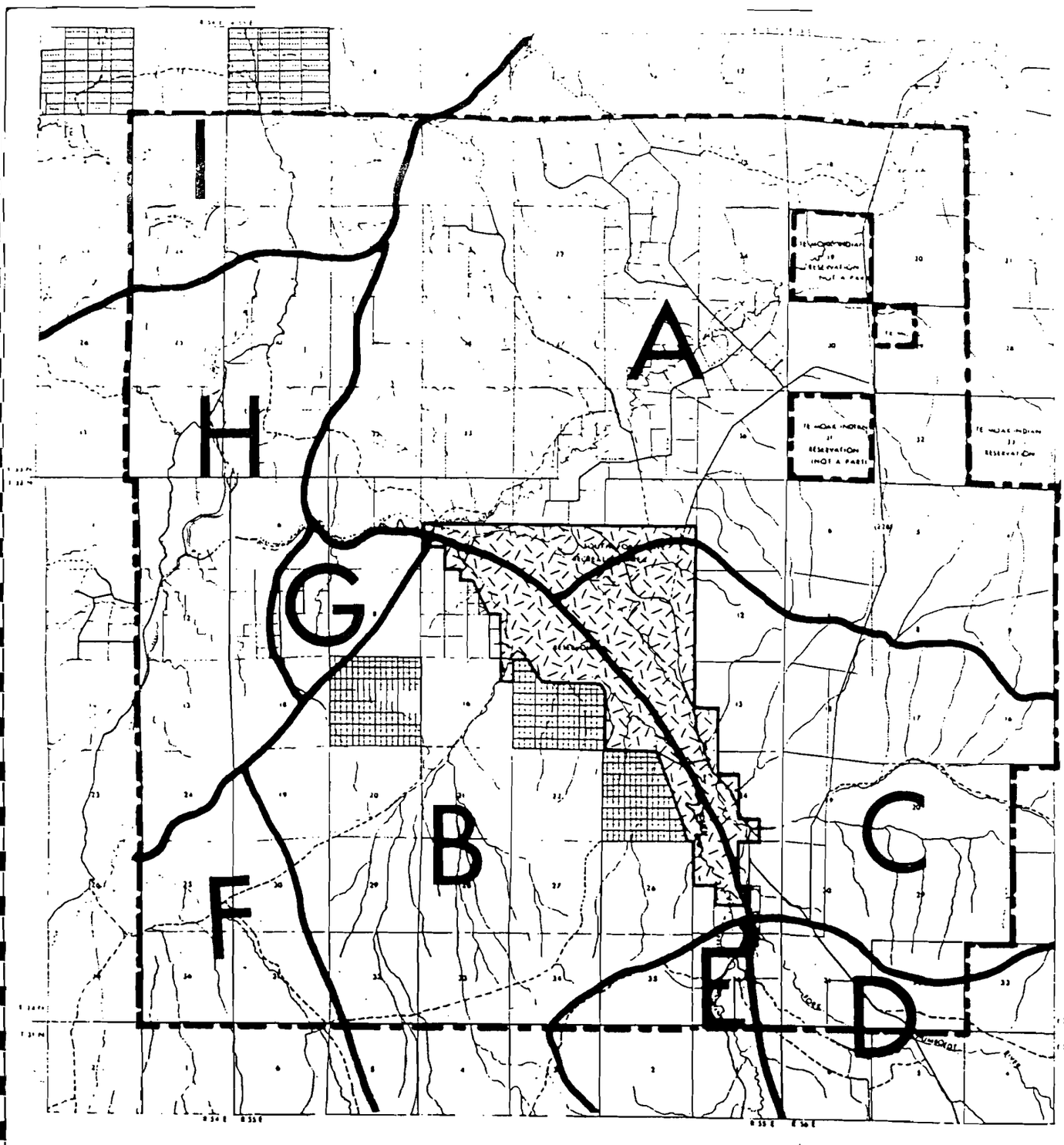
The South Fork Area Plan is comprised of portions of four separate groundwater basins within the Nevada Division of Water Resource's Humboldt River Basin. These four groundwater basins have been further divided into subareas within the South Fork Area Plan as shown on Figure 9, Hydrographic Subareas. The groundwater basins and their respective subareas are:

Hydrographic Basin	Subarea
1. South Fork Area (4-46)	D
2. Huntington Valley (4-47)	E
3. Dixie Creek - Tenmile Creek Area (4-48)	A,B,C,F,G,H
4. Elko Segment (4-49)	I

To better understand the water situation within the South Fork plan area, a broader overview is necessary. Water Resources Reconnaissance Series Report 35 for the Huntington Valley Area, prepared cooperatively by the State Division of Water Resources and the U.S. Geological Survey in 1966, provides the source of information for that purpose. The Reconnaissance Report is an appraisal of water resources that includes the entire South Fork of the Humboldt River drainage area, the Huntington Creek drainage area, and the Dixie Creek-Tenmile Creek drainage area, which totals approximately 820,000 acres. The entire South Fork Area Plan is included in this report, with the exception of the Elko Segment, which contains 960 acres of privately owned land and 1,840 acres that are managed by the BLM.

The Huntington Valley Area is topographically an open valley which drains into the main channel of the Humboldt River as the South Fork of the river. The South Fork leaves the boundary of the Huntington Valley Area just before it leaves the boundary of the South Fork Area Plan. It is at this point that the lowest elevation within the Reconnaissance Report area of 5,100 feet occurs. Major mountain ranges in, or comprising the boundary of the Huntington Valley Area are the Ruby Mountains, Diamond Mountains, Sulphur and Pinon Ranges, Cedar Ridge and the Elko Mountains.[1]

The principal streams of the Huntington Valley Area have their headwaters in the Ruby Mountains and flow generally westward until they join the northward flowing segments of Huntington Creek and the South Fork of the Humboldt River. Huntington Creek joins with the South Fork near the southern boundary of the South Fork Area Plan. The river continues in a northerly direction until it is deflected westward by the Elko Mountains and is joined by Tenmile Creek and Dixie Creek. It then cuts a gorge through the mountains in a northerly direction before it joins the main channel of the Humboldt River.[1]



SOUTH FORK AREA PLAN

ELKO COUNTY PLANNING COMMISSION

LEGEND

State Recreation Area

Boundary of Hydrographic Subareas

HYDROGRAPHIC SUBAREAS WITHIN PLAN BOUNDARY

N

1" = 8000'

PLAN BOUNDARY

Figure 9

Prepared by the State Land Use Planning Agency

The source of streamflow into the South Fork of the Humboldt River is derived mainly from snowmelt on the west flank of the Ruby Mountains. Streamflow is increased by tributaries, but some streams, including Dixie Creek and Tenmile Creek, usually reach the river for only short periods of time. Runoff is subject to loss by evapotranspiration and infiltration, which is increased by the diversion of streamflow onto fields for irrigation.[1]

Prior to development by man, all of the groundwater in the Huntington Valley Area was discharged by evaporation, transpiration, and surface and subsurface out-flow to the Humboldt River. With the advent of mining and agriculture, springs and streamflow were diverted and wells were pumped to satisfy industrial, stock, and irrigation needs.[1]

Most of the groundwater is discharged by evapotranspiration from the phreatophyte areas. Phreatophytes are the plants that grow along the principal stream channels and include meadow grass, rabbit brush, saltgrass, and greasewood. Cottonwood, willow, aspen, and tule grow along the banks of the principal streams. This area of groundwater discharge covers about 39,000 acres of the flood plain, and it is estimated that the amount of discharge is 21,000 acre feet per year.

Groundwater recharge in the Huntington Valley Area is derived from precipitation within the drainage basin, but the amount of infiltration is limited because the alluvium near most of the streams is saturated to land surface and most potential recharge; therefore, it is either rejected or enters storage for only a short period of time and then drains back to the stream, leaving the area as streamflow. The result is no net change in groundwater storage. Over the long term, when no net change of groundwater in storage occurs, recharge is equal to groundwater discharge. Based on the estimates of discharge, groundwater recharge was computed in the Reconnaissance Report to be equal to the sum of the estimated discharge by evapotranspiration of 21,000 acre feet per year and by subsurface out-flow of 9,000 acre feet per year.[1]

The following data from the Reconnaissance Report reflects total acreage of each groundwater basin within the Huntington Valley Area and the estimated amount of groundwater recharge for each basin.

Groundwater Basin	Land Area (Acres)	Groundwater Recharge (Acre Feet)
South Fork Area	66,000	4,000
Huntington Valley	505,000	14,000
Dixie Creek-Tenmile Creek Area	249,000	13,000

Discharge from wells was estimated to be 400 acre feet per year in 1964 when data was gathered for the Reconnaissance Report. At that time, there were six wells within the entire Huntington Valley Area that were used for irri-

gation purposes to supplement streamflow during dry years, and it was estimated that these wells did not exceed 300 acre feet per year. Stock wells and domestic wells within the Huntington Valley Area are numerous but it was estimated in 1964 that discharge from these wells probably did not exceed 100 acre feet per year.[1]

It is estimated that there are 29,000 acres of irrigated land within the entire Huntington Valley Area. A total of 39,697 acres had been adjudicated in connection with surface water rights in 1964 when the Reconnaissance Report was prepared. Diversions of streamflow and approximate losses resulting from evapotranspiration are estimated to be 38,000 acre feet per year.[1] Virtually all surface water within these basins has been appropriated. Therefore, only unappropriated underground water is available for future development.

Water Quality

The Reconnaissance Report addressed water quality mainly as it relates to agricultural uses, indicating that water from all sources is generally suitable for irrigation. The quality of the water varies with time and movement. As it moves toward the area of discharge in the lower parts of the valley, the mineral content increases. Water within the Huntington Valley area is primarily a calcium bicarbonate type.[1]

South Fork Area Plan

The amount of usable groundwater in storage, which is available on an economic basis, depends in part on the distribution of water-storing deposits, the distribution and range in chemical concentration of the groundwater, the number and distribution of wells, and the quantities of water withdrawn. Perennial yield cannot exceed the natural replenishment to an area indefinitely and ultimately is limited to the maximum amount of natural discharge that can be salvaged for beneficial use. To determine the most suitable areas of ground water development, many factors, such as soil type, topography, drainage, water quality, effect on streams, water rights, and pumping lift should be considered.[1]

According to records of the Division of Water Resources, there are permits to appropriate approximately 9,000 acre feet of groundwater within the plan area for irrigation and recreational uses. Some of this water is appropriated for the purpose of supplementing surface water, and some of it is supplemental to other wells used for irrigation or recreational uses.[2]

The South Fork plan area is located primarily within that portion of the Huntington Valley Area that is described in Reconnaissance Report 35 as "valley lowlands" that are less than 6,000 feet in elevation. These lowlands are bordered by portions of the Elko Mountains and by the Pinon Range in the northern and western portions of the plan area, respectively.[1]

The "valley lowlands" are underlain by alluvial fill which comprise the principal groundwater reservoir. The alluvial fill is older alluvium of mostly uncon-

solidated debris derived from the adjacent mountains which ranges from 35 to 270 feet in depth with low to moderately high permeability. The older alluvium is considered to be a fair to good source of water to wells which are in areas that are saturated. A younger alluvium is thinly deposited along the principal drainages and has a high permeability rate.[1]

The higher elevations of the Huntington Valley Area are identified in the Reconnaissance Report as "mountainous" and are composed of consolidated carbonate rocks. Because of the topographic position of these areas and because of the unknown depth and distribution of the consolidated rock, they are not considered to be a reliable source of water for residential development. Sufficient information is not available to determine whether consolidated carbonate rocks are actually present in the higher elevations of the South Fork plan area.

Table III gives a calculated breakdown of available information in relation to water resources within the plan area, based on the assumption that the groundwater is distributed evenly throughout the entire basin. The acre feet of water within each subarea is then converted to a dwelling unit equivalency in order to develop residential density factors in relation to available information. The dwelling unit equivalency is based on a daily maximum of 1,800 gallons per day as referenced in NRS 534.180, or 2.02 acre feet per year per dwelling. The calculations in Table III reflect a deficit of 7,820 acre feet of groundwater, which is equivalent to 3,875 dwelling units. The following is a summary of that information as it pertains to each subarea.

	ACRE FEET OF GROUND WATER			DWELLING UNIT EQUIVALENCY		
Subarea	Gross	Appropriated	Net	Gross	Appropriated	Net
A	1,131	1,446	- 315	560	716	- 156
B	650	2,673	-2,023	321	1,323	-1,002
C	494	4,144	-3,650	244	2,051	-1,807
D	80	2,402	-2,322	39	1,189	-1,150
E	28	0	28	13	0	13
F	130	0	130	64	0	64
G	52	14	38	25	7	18
H	351	57	294	173	28	145
I	-	-	-	-	-	-
Totals	2,916	10,736	-7,820	1,439	5,314	-3,875

TABLE III

CALCULATIONS OF WATER RESOURCE INFORMATION

	SUBAREAS - GENERAL					LAND OWNERSHIP								
						Public (BLM)			State Recreation Area			Private		
Area	Total Acres	% of GWB	AF/GW	DU/cn	AC/DU	Acres	DU/cn	AF/GW	Acres	DU/cn	AF/GW	Acres	DU/cn	AF/GW
A	21,740	8.7	1,131	560	38.8	12,540	323	652	880	23	46	8,320	214	432
B	12,330	5.0	650	321	38.4	4,240	110	222	1,534	40	81	6,556	171	345
C	9,440	3.8	494	244	38.7	2,320	60	121	1,520	39	79	5,600	145	293
D	1,310	2.0	80	39	33.6	0	0	0	0	0	0	1,310	39	78
E	780	0.2	28	13	60.0	0	0	0	0	0	0	780	13	26
F	2,480	1.0	130	64	38.6	2,480	64	129	0	0	0	0	0	0
G	1,120	0.4	52	25	44.8	560	12	24	0	0	0	560	13	26
H	6,720	2.7	351	173	38.7	3,560	92	186	0	0	0	3,160	82	166
I	2,800	-	-	-	-	1,840	-	-	0	-	-	960	-	-
Totals	58,720	-	2,916	1,439	-	27,540	661	1,334	3,934	102	206	27,246	677	1,366
Column Number	1	2	3	4	5	6	7	8	9	10	11	12	13	14

AF = Acre feet of groundwater
GW = Groundwater
DU/cn = Dwelling unit conversion (2.02 acre feet per dwelling)
Acres/DU = Average acres per dwelling unit based on equal distribution of estimated amount of available groundwater resources over the entire plan area, regardless of ownership or administrative jurisdiction

Note: 1. No hydrographic information was available for Subarea I.

2. A procedural explanation of each column is provided in the Appendix.

CALCULATIONS OF WATER RESOURCE INFORMATION

	WATER RESOURCES												
	Groundwater Basin			Appropriated								Net	
				Existing Lots		Irrigation		Recreation		Total			
Subarea	Name	Total Acres	AF/GW	Number	AF	AF	DU/cn	AF	DU/cn	AF	DU/cn	AF	DU/cn
A	Dixie-Tenmile Cr.	249,000	13,000	110	222	1,224	606	0	0	1,446	716	- 315	- 156
B	Dixie-Tenmile Cr.	249,000	13,000	630	1,273	0	0	1,400[1]	693	2,673	1,323	-2,023	-1,002
C	Dixie-Tenmile Cr.	249,000	13,000	2	4	0	0	4,140[1]	2,049	4,144	2,051	-3,650	-1,807
D	South Fork Area	66,000	4,000	1	2	2,400	1,188	0	0	2,402	1,189	-2,322	-1,150
E	Huntington Valley	505,000	14,000	0	0	0	0	0	0	0	0	28	13
F	Dixie-Tenmile Cr.	249,000	13,000	0	0	0	0	0	0	0	0	130	64
G	Dixie-Tenmile Cr.	249,000	13,000	7	14	0	0	0	0	14	7	38	18
H	Dixie-Tenmile Cr.	249,000	13,000	28	57	0	0	0	0	57	28	294	145
I	Elko Segment	-	-	0	-	-	-	-	-	-	-	-	-
TOTALS	-	-	-	778	1,572	3,624	1,794	5,540	2,742	10,736	5,314	-7,820	-3,875
COLUMN NUMBER	15	16	17	18	19	20	21	22	23	24	25	26	27

AF = Acre feet of groundwater
GW = Groundwater
DU/cn = Dwelling unit conversion (2.02 acre feet per dwelling)
Acres/DU = Average acres per dwelling unit based on equal distribution of estimated amount of available groundwater resources over the entire plan area, regardless of ownership or administrative jurisdiction

NOTE: 1. No hydrographic information was available for Subarea I.

2. A procedural explanation of each column is provided in the Appendix.

The number of acres required to support each dwelling unit is based on the net recharge of the entire area of the groundwater basin and derived in accordance with the following formula:[2]

AS = Total acres of subarea (Figure 9)

AB = Total acres of groundwater basin (Reconnaissance Report 35)

P = Percentage of acreage of total basin

AFB = Net acre feet per year of total basin

AFS = Net acre feet per year of subarea (Figure 9)

2.02 = Acre feet required for each dwelling unit per year at 1,800 gallons per day (NRS 534.180)

DU = Estimated number of allowable dwelling units

A/DU = Estimated number of acres required for each dwelling unit.

1. $\frac{AS}{AB} = P$

2. $P(AFB) = AFS$

3. $\frac{AFS}{2.02} = DU$

4. $\frac{AS}{DU} = A/DU$

This data was used to determine an estimated number of dwelling units and the average number of acres required for each dwelling unit. According to the land use inventory conducted in conjunction with the South Fork Area Plan, there are 38 single family dwelling units within the plan area, most of which, if not all, have occurred since 1964. These dwelling units are included in the total number of existing lots within the plan area.

Because the Reconnaissance Report is an appraisal of water resources, it is based on certain assumptions and estimates, and should not be construed as a method that will produce results of equivalent reliability to those based on abundant data. However, the information available does indicate that residential and commercial development within the plan area should be minimized until further information is available to indicate otherwise. All of the groundwater basins within the plan area have been "designated" by the State Engineer.[2]

"Designation" of a groundwater basin is an indication that the water resources available for further development are limited to such a degree that caution should be taken to avoid irreversible damage to the recharge capabilities of the groundwater basin by overuse. Based on this implication, the State Engineer has exercised the power authorized by NRS 534.030, which allows for closer management of the resources within such basins.[2]

Water storage in the reservoir in relation to residential development within the South Fork plan area must also be addressed at this time. Water levels are likely to rise in the immediate vicinity of the reservoir; however, this does not mean there will be additional water available for appropriation under NRS Chapter 534, since it will be considered as bank storage and part of the reservoir water. The water rights that have been appropriated for the purpose of developing the reservoir are not available for other uses; they are necessary in order to maintain the reservoir at a functional level for the recreational purposes for which it was developed. Groundwater use for residential development in excess of the average annual recharge would have an adverse impact on the surface water necessary to protect the river and downstream water rights.[2]

Development beyond the capabilities of available water resources could be detrimental to the resources as well as the users. However, if a sparse density is maintained within the plan area, residential development should not adversely impact the supply of groundwater. Some of the water used for irrigation and recreational purposes will filter back into the groundwater table. Without detailed studies as to the exact amount of groundwater that is being used and returned to the groundwater table, residential development within the plan area should be limited. It should be noted that existing parcels within Subarea B, particularly in the Lucky Nugget Subdivision, could adversely impact the supply of groundwater if all of the parcels are developed. In summary, if it is determined that there is an adequate supply of water to support an increase in density, it may be necessary to re-evaluate the plan at that time and adjust residential densities as appropriate. This approach would protect the resources yet allow development in suitable areas.

Sources of Information:

1. Water Resources Reconnaissance Report No. 35 prepared cooperatively by the State Division of Water Resources and the U.S. Geological Survey. 1966

2. Nevada Division of Water Resources

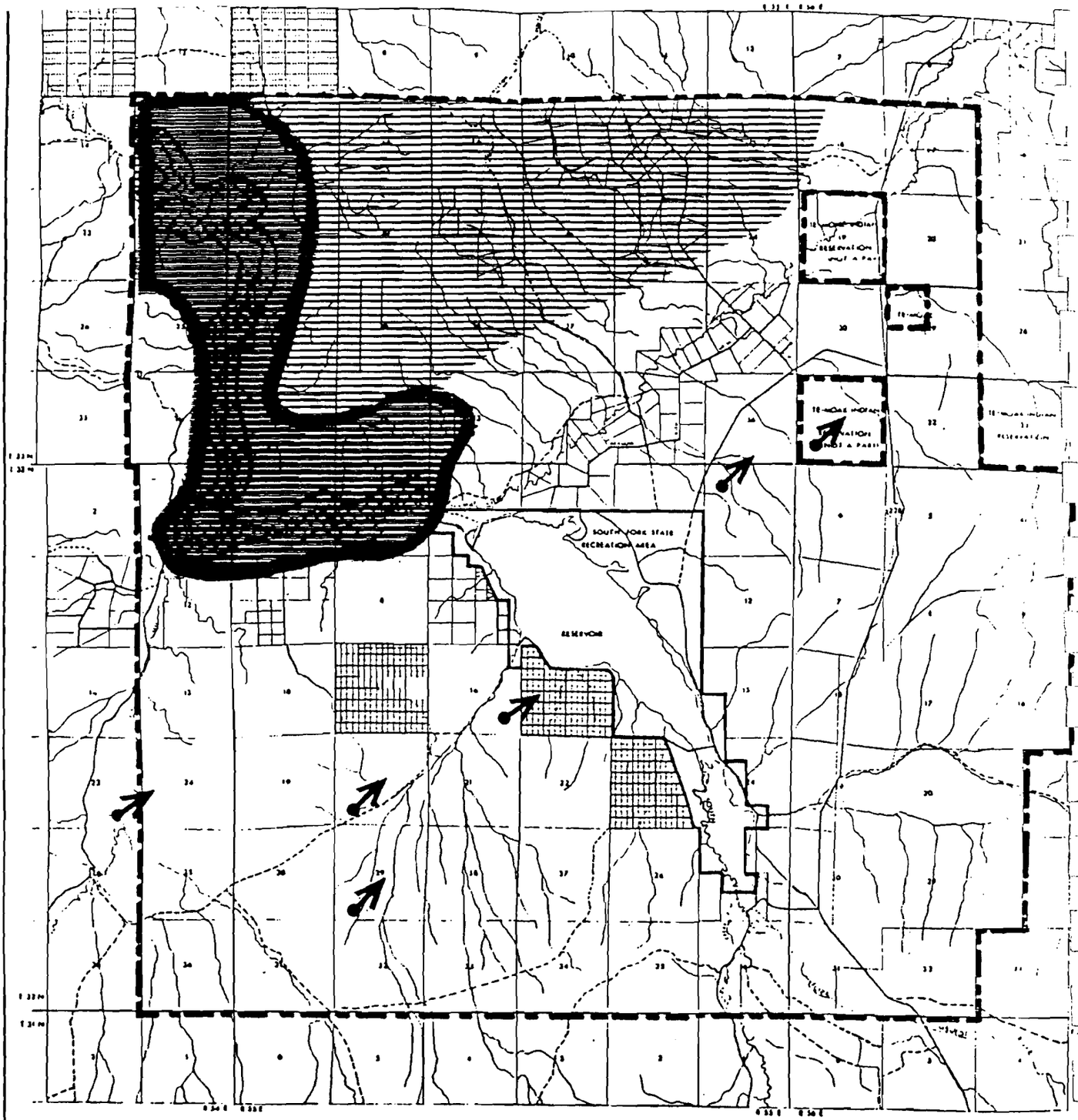
WILDLIFE

All of the lands within the South Fork Area Plan provide habitat for certain species of wildlife, including mule deer, sage grouse, chukar, golden eagle, and prairie falcon. Specific habitat areas are shown in Figure 10.

The entire area is a yearlong habitat for mule deer and sage grouse. Most of the sage grouse strutting grounds are located in the southwestern portion of the plan area. The South Fork canyon area provides a nesting area for a high density of golden eagles and prairie falcons. The northwestern portion of the plan area provides habitat for chukar, ranging from medium density in the general area of the South Fork canyon to low density in the remaining area. The following is a brief summary of the approximate acreages of the various types of wildlife habitat within the plan area:

Wildlife Species	Approximate Habitat Acres
Chukar - low density	9,000
Chukar - medium density	5,800
Golden Eagle/Prairie Falcon - high density	1,280

Source of Information: Nevada Department of Wildlife



LEGEND

- Low Density Chukar Habitat
- Medium Density Chukar Habitat
- High Density Golden Eagle/Prairie Falcon Nesting Area
- Sage Grouse Strutting Ground
- ENTIRE PLAN AREA — Yearlong Habitat for Mule Deer
- Sage Grouse Habitat

SOUTH FORK AREA PLAN

ELKO COUNTY PLANNING COMMISSION

WILDLIFE DISTRIBUTION WITHIN PLAN BOUNDARY

FIGURE 10

N

1" = 8000'

Prepared by the State Land Use Planning Agency

PLAN BOUNDARY

CULTURAL RESOURCES

An archaeological report that was prepared in conjunction with the environmental surveys conducted prior to construction of the dam indicates that cultural resources are present within an area of approximately ten miles in diameter, centered on the reservoir project area. During preliminary archeological investigations, 46 prehistoric sites and 3 historic sites were found in the survey area. The prehistoric sites include isolated artifacts, ceramic and lithic scatters, and rock shelters. The historic sites are the three ranching complexes within the state recreation area.

Source of Information: Division of Historic Preservation and Archaeology, Department of Conservation and Natural Resources.

VISUAL RESOURCES

The state recreation area is primarily visible from the higher elevations of the Western Hills Subdivision, the Lucky Nugget Subdivisions and other lands that are adjacent to its western boundary, and from lands adjacent to its southwestern boundary. The rolling hills along the east side of the Jiggs Highway and the area south of the Lucky Nugget Subdivisions would also offer visibility of the state recreation area from the higher elevations.

LAND OWNERSHIP

More than half of the land within the boundary of the South Fork Area Plan is publicly owned and managed either by the Bureau of Land Management (BLM) or the State of Nevada. The park boundary includes 3,354 acres of state-owned land and an additional 580 acres currently leased from the BLM under the Recreation and Public Purposes (R&PP) Act. The federal government owns approximately 28,740 acres that are managed by the BLM, or 48 percent of the plan area. An additional 80 acres of federally owned land is leased by the BLM to the Nevada Department of Transportation for a highway materials site. Public ownership comprises approximately 59 percent of the total plan area. Land ownership is shown in Figure 11, and is summarized in Table IV.

The 28,740 acres in federal ownership is public land managed by the BLM primarily as open space and rangeland. A use permit was issued by the BLM to the State of Nevada for extraction of rip rap materials from a 40 acre parcel for dam construction. The BLM has designated 3,360 acres, primarily in the South Fork Canyon area, as a Special Recreation Management Area. Of the 3,360 acres, 2,290 are within the plan boundary, extending east and northeast from the canyon along Tenmile Creek, and north along approximately one mile of the historic Elko-Hamilton Stage Route. Figure 12 depicts this area.

A fire rehabilitation project that included approximately 700 acres within the plan boundary was completed by the BLM in 1986. The rehabilitation project which was essential in order to prevent soil erosion on steep slopes, included the planting of several hundred bitterbrush seedlings for the purpose of enhancing wildlife habitat and providing deer winter range.

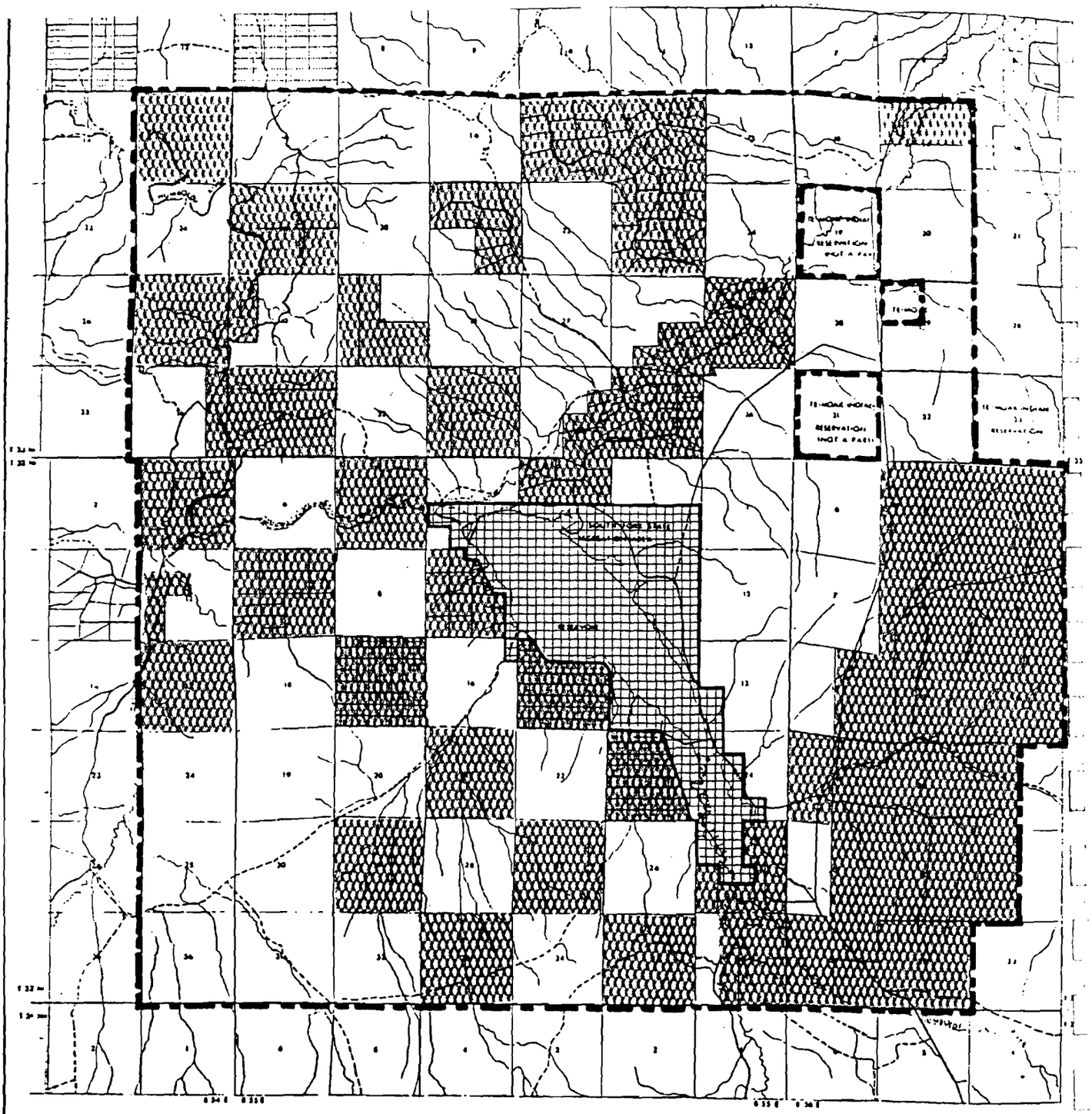
The Elko Resource Management Plan prepared by the BLM as part of their planning process identifies federally owned lands on the east side of State Route 228 for disposal through land exchanges. These are parcels that are generally isolated from other lands managed by the BLM and are difficult and uneconomic to manage. The BLM is currently involved in a land exchange in the southwestern portion of the South Fork Area Plan. The exchange would take 1,920 acres out of federal ownership, increasing private ownership within the plan boundary by 2 percent. Public land ownership within the plan boundary would be increased by 640 acres. The lands involved in the proposed exchange are shown in Figure 13. An exchange that would have increased the acres of private land by 2,320 was supported by the Elko County Planning Commission prior to development of the South Fork Area Plan.

The State of Nevada acquired 3,354 acres from the Elko Recreation Board to develop the reservoir and state recreation area. The State also leases approximately 580 acres from the BLM under the R&PP Act. As the park is developed, title to these lands will be transferred to the State for management by the Division of State Parks.

The State filed an amendment to the R&PP application for an additional 240 acres adjacent to the wildlife management area in the southern portion of the park. It will be necessary for an environmental assessment to be prepared before a lease with the intent to transfer these lands to the State can be issued. This area was not included in the original application because the environmental assessment process would have delayed timely development of the reservoir and recreation area.

The Nevada Department of Transportation controls 80 acres of land administered by the BLM for use as a highway materials site. There are two excavation sites that are located just west of State Route 228 and north of the county road that enters the park boundary near Twin Bridges.

Approximately 7,500 acres, or 13 percent, of the plan area have been divided into 778 parcels of 40 acres or less in size. The remaining 30 percent of the plan area consists of large parcels of privately owned land ranging in size from 80 acres to several hundred acres. Table XII in the Appendix indicates land ownership of large acreages. Significantly large ownerships in sections immediately adjacent to the plan boundary are included in this tabulation for reference purposes only.



LEGEND

- Public (BLM)
- State (Owned or Leased)
- Private

SOUTH FORK AREA PLAN

ELKO COUNTY PLANNING COMMISSION

LAND OWNERSHIP
WITHIN PLAN BOUNDARY

Figure 11

Prepared by the State Land Use Planning Agency

N

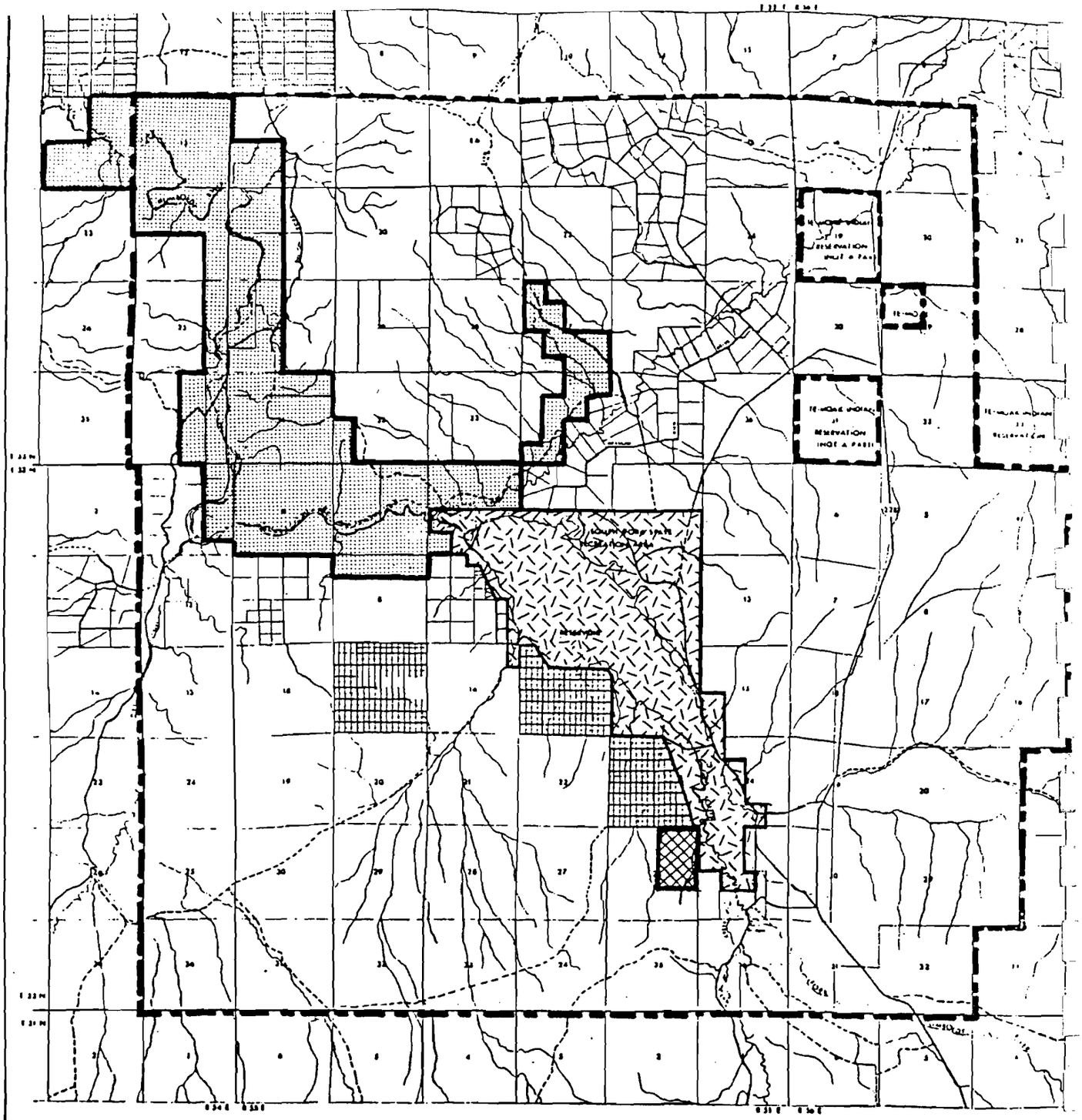
1" = 8000'

PLAN BOUNDARY

TABLE IV

LAND OWNERSHIP WITHIN PLAN BOUNDARY

LAND OWNERSHIP	APPROXIMATE ACRES	PERCENTAGE OF PLAN AREA
1. Federal		
Bureau of Land Management (BLM)	26,540	45.0
Proposed Land Exchange: BLM/Private	1,920	3.3
BLM Leases to the State of Nevada		
A. Division of State Lands (South Fork State Recreation Area managed by the Division of State Parks)	580	1.0
B. Department of Transportation (Highway Materials Site)	80	0.1
BLM Use Permit for Dam Construction	40	-
BLM Lease Amendment - Pending	240	0.5
Division of State Lands (South Fork State Recreation Area managed by the Division of State Parks)		
2. State of Nevada		
Division of State Lands (South Fork State Recreation Area managed by the Division of State Parks)	3,354	5.7
3. Private		
Land in Parcels of 40 Acres or Less	7,693	13.0
Land in Parcels in Excess of 40 Acres	17,633	30.3
Proposed Land Exchange: Private/BLM	640	1.1
TOTAL	58,720	100.0



LEGEND

State Recreation Area

Area Identified by BLM as Special Recreation Management Area

R&PP Lease Amendment Area.

SOUTH FORK AREA PLAN

ELKO COUNTY PLANNING COMMISSION

SPECIAL RECREATION MANAGEMENT AI

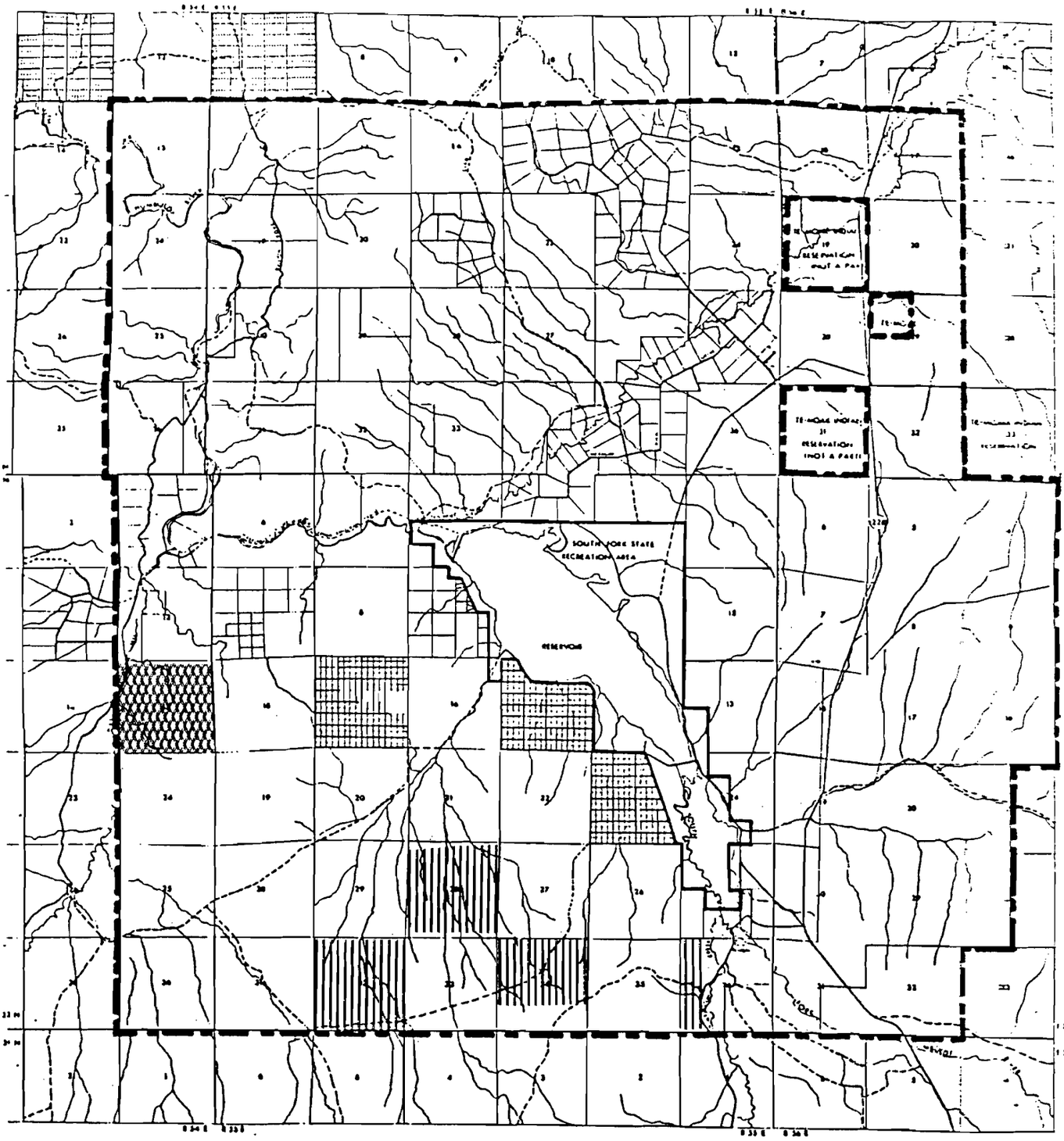
N

1" = 8000'

PLAN BOUNDARY

Figure 12

Prepared by the State Land Use Planning Agency



LEGEND

Public (BLM) Lands Selected in Exchange for Private Lands

Private Lands Offered in Exchange for Public (BLM) Lands

SOUTH FORK AREA PLAN

ELKO COUNTY PLANNING COMMISSION

PROPOSED LAND EXCHANGE
BLM/PRIVATE
WITHIN PLAN BOUNDARY

Figure 13

Prepared by the State Land Use Planning Agency

N

1" = 8000'

PLAN BOUNDARY

LAND USE

Existing land use activity within the South Fork plan area is of a rural agricultural nature that surrounds the state recreation area. Acreages of the various categories of land uses and the number of residential dwelling units are summarized in Table V, and is shown in Figure 14.

RESIDENTIAL. Residential development within the plan area comprises approximately 3.6 percent of the entire area, which represents a very low density. The majority of residential development has occurred in the Western Hills Subdivision. There are ten dwellings located along the Tenmile Creek area, and another 21 in the northern portion of the subdivision at the higher elevations. There are 4 residential dwellings on large parcels that are part of support facilities for agricultural uses, but two of those are within the state recreation area and will no longer be used for residential purposes. One will be used as an interpretive center and the other will be removed before the area is inundated by the reservoir. Very little residential development has occurred on the 630 lots located within the southwestern portion of the plan area, which includes the Lucky Nugget Subdivision.

AGRICULTURAL. There are two categories of agricultural land uses within the plan area: (1) lands that are utilized for livestock grazing, and (2) lands that are meadows or irrigated for pasture.

Nearly 80 percent of the plan area is used for livestock grazing and open space. Grazing allotments from which grazing fees are collected exist on all of the lands managed by the BLM.

Meadows and irrigated pastures are located along Tenmile Creek and in the South Fork-Huntington Creek area. According to available information, a majority of the lands within this designation have combinations of severe soil limitations that include flood and erosion potential, high water table, and slow percolation.

PUBLIC FACILITIES. Public facilities are limited to the 3,934 acre state recreation area and a fire station that is on one acre of land leased to the Nevada Division of Forestry. The fire station is located in the Tenmile Creek area of the Western Hills Subdivision.

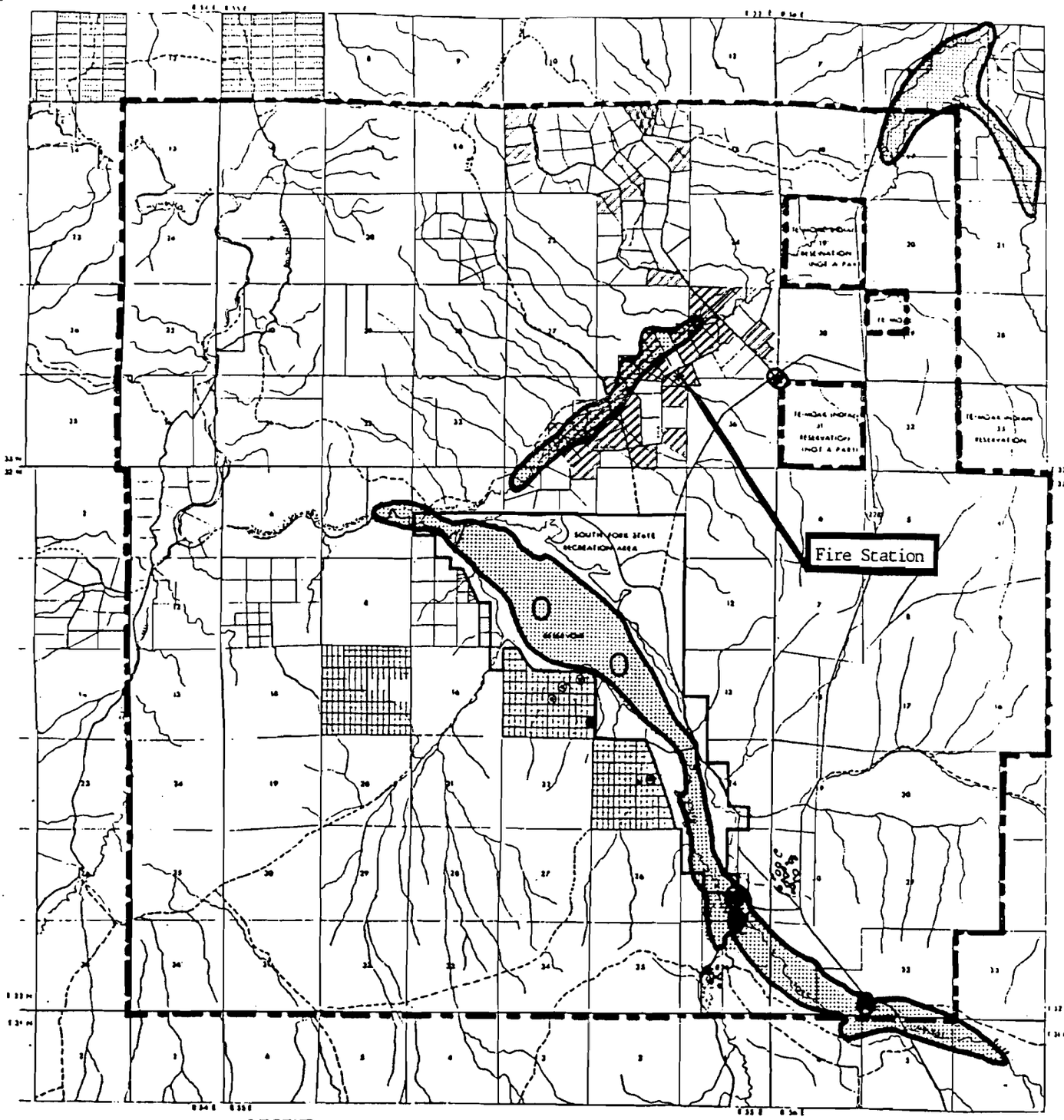
OTHER. Miscellaneous uses within the plan area include equipment storage on a lot in the northern part of the Western Hills Subdivision, an 80 acre parcel of land west of the Jiggs Highway and north of the Twin Bridges Road that is leased to the Nevada Department of Transportation as a highway materials site, two separate areas 40 acres each that are being used temporarily as material sites for construction of the dam, a 40-acre materials site on private land within the NE 1/4 SW 1/4, Section 36, Township 32 North, Range 55 East (south of Twin Bridges), a 5 acre parcel adjacent to the Western Hills Subdivision that is used for a livestock watering facility, and approximately 231 acres of dedicated right of way. This is a total of approximately 480 acres, or .7 percent of the entire plan area.

VACANT. The remaining 10 percent of the plan area is vacant land.

Source of Information: A land use survey for the purpose of developing the South Fork Area Plan was conducted by the State Land Use Planning Agency in August, 1986.

TABLE V
EXISTING LAND USE WITHIN PLAN BOUNDARY

Land Use Activity	Approximate Acres	Dwellings	Approxi- Acr Of Ov
1. Residential			
A. Agricultural (Meadow/Irrigated Pasture)			
Within Park Boundary	2,000	2	2,00
Within Western Hills Subdivision	400	10	
Large parcels with residential support facilities within plan boundary	400	2	
Large parcels with residential support facilities outside of plan boundary	100		
B. Non-Agricultural			
Land in Parcels of 10 to 40 acres	780	21	
Land in Parcels Less than 10 acres	10	5	
2. Livestock Grazing/Open Space	46,555		
3. Public Facilities			
A. State Recreation Area	3,934*		
B. Fire Station	1		
4. Other			
A. Equipment Storage	40		
B. Materials Sites			
NDOT	80		
Dam Construction	80		
Private	40		
C. Livestock Water Facility	5		
D. Dedicated Right of Way	231		
5. Vacant	6,064		
TOTAL	58,720	40	2,000



LEGEND

- Livestock Grazing/Open Space
- Pasture/Irrigated Meadows
- Residential - 40 Acre Lots
- Residential - 2½ Acre Lots
- Residential - Agricultural Support Facilities
- Residential Structures within State Recreation Area
- Livestock Watering Facility
- Material Sites
- Equipment Storage

SOUTH FORK AREA PLAN

ELKO COUNTY PLANNING COMMISSION

EXISTING LAND USE
WITHIN PLAN BOUNDARY

Figure 14

N

1" = 8000'

Prepared by the State Land Use Planning Agency

PLAN BOUNDARY

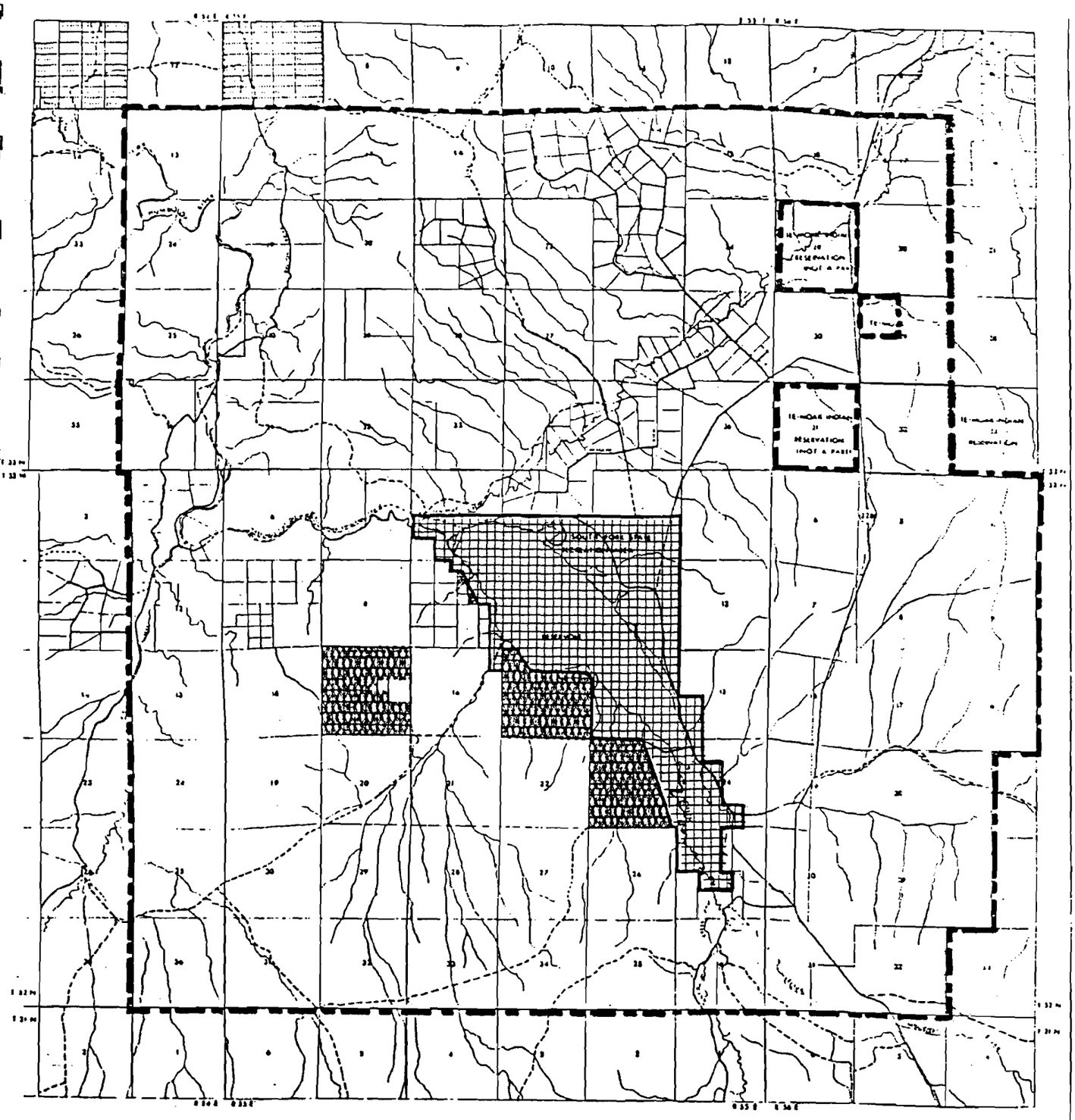
ZONING

There are currently three zoning districts within the South Fork plan area: (1) AR, Agricultural Residential, (2) P, Public and (3) OS, Open Space. Those districts are shown in Figure 15.

AR, AGRICULTURAL RESIDENTIAL. The intent of this district is to provide areas primarily for rural or estate-type living, but allowing certain "hobby and/or recreation" agricultural pursuits to be maintained on land parcels of at least one acre. Lands within the plan area that are zoned "AR" are subdivided lots that are less than ten acres in size. This includes the Lucky Nugget Subdivisions, 6 lots adjacent to the northwestern boundary of the state recreation area in Section 9, Township 32 North, Range 55 East, and two other parcels located in the Twin Bridges area.

P, PUBLIC. Public districts are created to apply to land that is owned by a governmental agency and is in some form of public use, including open space, parks, schools and other public buildings and facilities. The purpose of designating such land as "P" on the Zoning Map is to relate the Zoning Map to major elements of the actual land use. The 3,934 acre state recreation is zoned "P."

OS, OPEN SPACE. The open space district is intended to provide protection for agricultural areas from urban development of residential subdivisions, and to serve as an open space area around the more intensive urban uses. Noncommercial seasonal recreation activities not requiring fixed improvements are allowed. The minimum lot size within the Open Space District is 10 acres. The remainder of the plan area, not previously described, is within the "OS" zoning district.



LEGEND

OS, Open Space (1 DU/10 Acres)

P, Public

AR, Agricultural Residential (1 DU/1 Acre)

SOUTH FORK AREA PLAN

ELKO COUNTY PLANNING COMMISSION

EXISTING ZONING
WITHIN PLAN BOUNDARY

Figure 15

Prepared by the State Land Use Planning Agency

N

1" = 8000'

PLAN BOUNDARY

POPULATION

There are currently 38 dwelling units on the 25,966 acres of private land within the plan area. These dwelling units could support a population of 100. This figure is in accordance with the U.S. Bureau of the Census - Nevada 1980 which indicates that 2.67 is the average number of persons per dwelling unit in Elko County. The maximum number of dwelling units within the plan area according to existing zoning is 3,877 or a population potential of 10,350. This includes an additional 1,280 acres of BLM land that will be privately owned when the proposed land exchange is completed.

Many of the 778 existing lots have more land area than required by existing zoning but not enough to maintain the maximum number of dwelling units per acres if divided further. Therefore, the maximum potential number of dwelling units per acre for the private land within the entire plan area cannot be applied. This is reflected in Table VI, Population Potential - Existing Zoning.

TABLE VI

POPULATION POTENTIAL - EXISTING ZONING

		DWELLING UNITS (DU)			POPULATION		
DESIGNATION	ACRES	ACRES PER DU	100% BUILDOUT	EXISTING BUILDOUT	PERSONS PER DU	100% BUILDOUT	EXISTING BUILDOUT
Medium Density Residential	1,457	1	1,304	5	2.67	3,481	13
Low Density Residential[1]	6,006	10	562	31	2.67	1,500	82
Low Density Residential[2]	18,272	10	1,827	2	2.67	4,878	5
Low Density Residenital[3]	1,280	10	128	0	2.67	341	0
TOTAL	-	-	3,821	38	-	10,200	100

[1] Existing parcels of 10-40 acres in size.

[2] Undeveloped private land in parcels larger than 40 acres in size.

[3] Undeveloped land that will become private after the proposed land exchange is completed.

TRANSPORTATION

There are approximately 130 miles of roads within the South Fork plan area. Because of the rural nature of the area, the status of these roads varies from 50 miles that are unimproved and undedicated to 10 miles of paved road that is maintained by the Nevada Department of Transportation. This is the Jiggs Highway which traverses the western portion of the plan area. Other classifications of roads include 18 miles that are maintained by Elko County, 33 miles of dedicated, but unaccepted rights of way, 15 miles of unimproved roads that are easements and most of which are non-agency maintained, and approximately 3.4 miles of unpaved road that is currently managed by the Division of State Parks within the state recreation area. Figure 16, Existing Road Classifications, indicates the status and maintenance of the roads within the plan area.

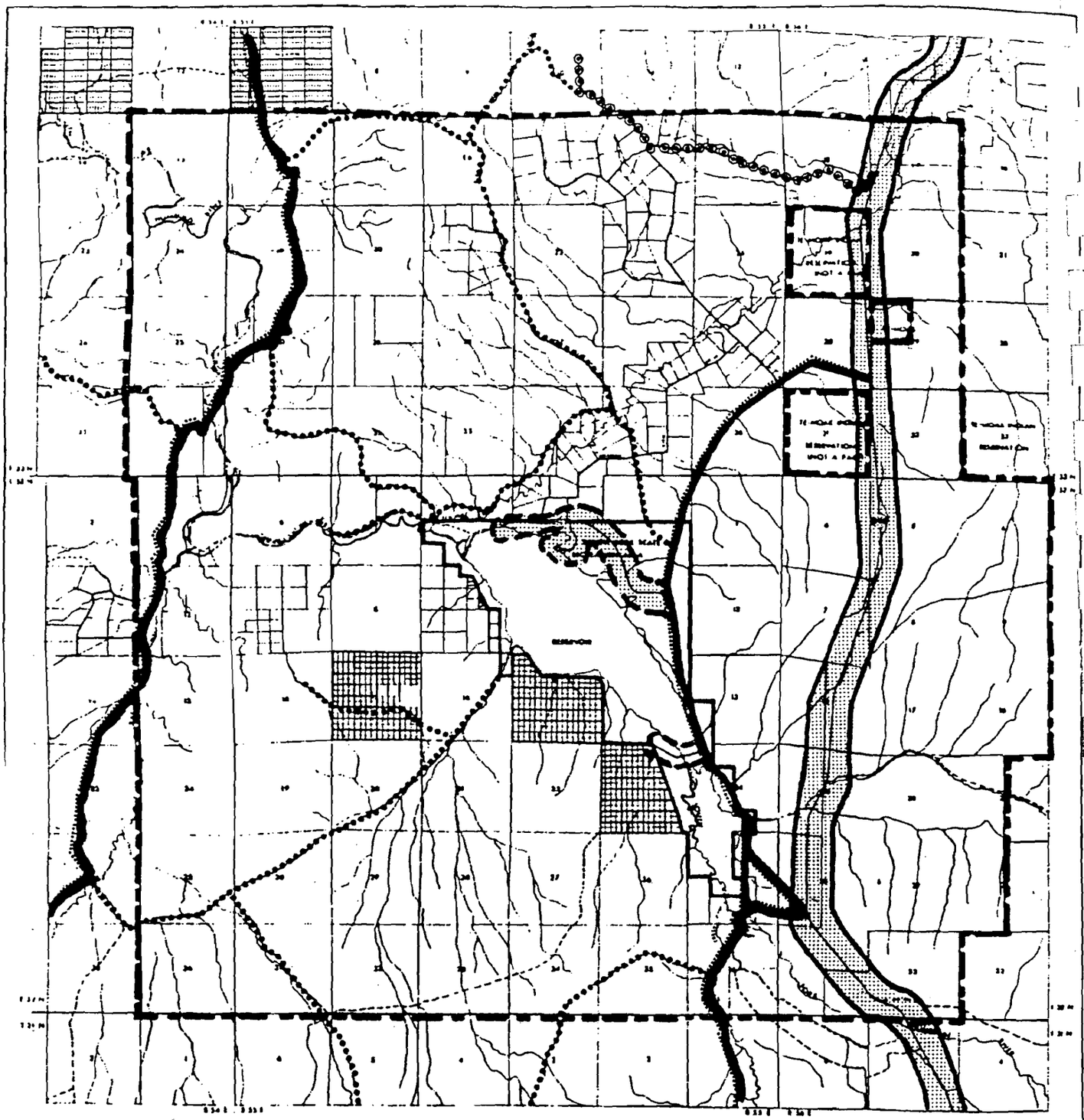
Only those roads that were being managed by either the county, the state, or a federal agency when the South Fork Area Plan was developed are shown in Figure 16. All of the roads in the Western Hills and Grindstone Mountain Subdivisions are right of way easements, and all of the roads within the three sections of the Lucky Nugget Subdivision have been dedicated to the county but were not accepted. Right of way easements were recorded with the parceling of land within Sections 7 and 9, Township 32 North, Range 55 East. All other roads within the plan area are unimproved, undedicated, without easements, and generally of a primitive condition.

As a result of the reservoir project, a new road was developed across the southern portion of the state recreation area to provide access to the Lucky Nugget Subdivision because the original access will become inundated.

The road system within the recreation area is a part of the 1984 Master Plan for the South Fork State Recreation Area. Several alternatives were considered during the development of the park master plan to determine the most feasible route that would serve as the main access. The alternative that was considered to be the most economically feasible was a paved access road from the Jiggs Highway, approximately one mile north of its intersection with the Twin Bridges road, to the fee-collection station within the park boundary.

The master plan for the South Fork State Recreation Area was developed on the premise of the main entrance being located near the southern boundary. The park master plan addresses the need for one entrance in order to properly administer security enforcement and have a successful fee-collection system, and calls for fencing of the entire park boundary and closure of the county road at the north boundary of the park once the main access road is developed.

Figure 17 indicates the master-planned circulation pattern for the state recreation area. As the park becomes more fully developed, the circulation element of that plan will be re-evaluated.



LEGEND

- Nevada Department of Transportation
- Nevada Division of State Parks
- County
- Federal (BLM)
- Federal (FAA)

SOUTH FORK AREA PLAN

ELKO COUNTY PLANNING COMMISSION

EXISTING ROAD-CLASSIFICATIONS WITHIN PLAN BOUNDARY

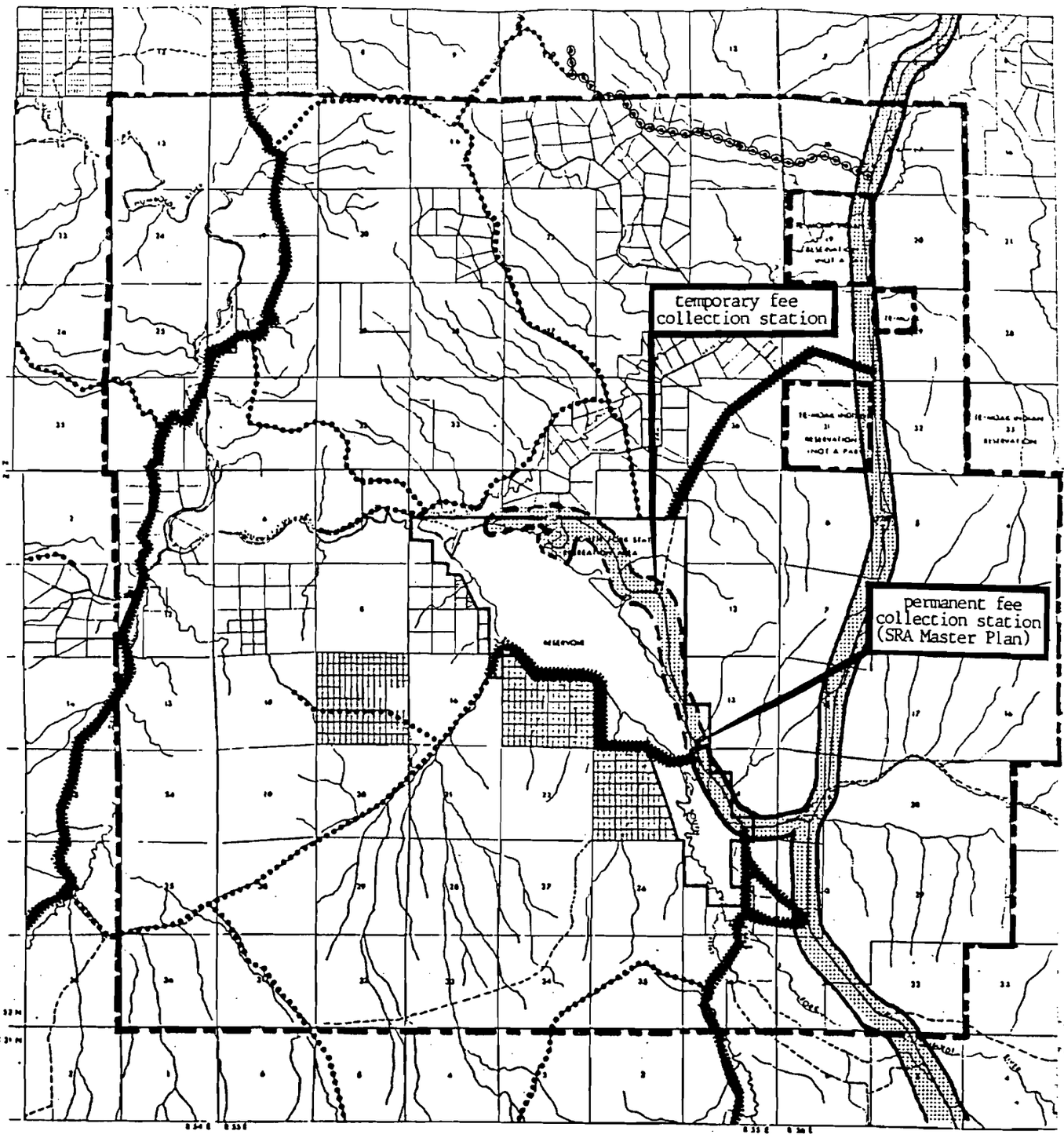
Figure 16

N

1" = 8000'

Prepared by the State Land Use Planning Agency

PLAN BOUNDARY



LEGEND

- Nevada Department of Transportation
- Nevada Division of State Parks
- County
- Federal (BLM)
- Federal (FAA)

SOUTH FORK AREA PLAN

ELKO COUNTY PLANNING COMMISSION

STATE RECREATION AREA CIRCULATION

(ROAD CLASSIFICATIONS ACCORDING TO THE MASTER PLAN FOR THE STATE RECREATION AREA)

N

1" = 8000'

Figure 17

PLAN BOUNDARY

PUBLIC FACILITIES AND SERVICES

The demand for public facilities and services within the South Fork plan area is very limited at this time because of the sparse population and rural characteristics of the area. Facilities and services such as schools, recreation, police and fire protection, utilities, and waste disposal are addressed below.

SCHOOLS. At the present time, any school-age children that live within the plan area would be bussed to schools in Elko. A new elementary school in the Spring Creek area is scheduled to be completed in 1989. The first phase of this facility will be completed for use in the fall of 1988; however, it has not yet been determined whether elementary school-aged children from the South Fork area would attend that school or continue going to Elko.

RECREATION. Recreational opportunities within the plan area are oriented toward outdoor activities such as hiking hunting, fishing, and rafting. The South Fork State Recreation Area and the area identified by the BLM as the South Fork Special Recreation Management Area will enhance outdoor recreational activities within the plan area.

The state recreation area will provide visitors with the opportunity to enjoy water-oriented and other outdoor recreational activities. It will have such amenities as a boat ramp along the northern shore of the reservoir and a marina facility along the southwestern shore. It is estimated that the reservoir will be completed by June 1988.

The following is a list of services and facilities that the Division of State Parks anticipates being included in the marina concession area:

> boat ramp, general store/bait and tackle shop, gas pumps/fuel dock, floating boat berths/mooring buoys, dry boat storage, snack bar/deli, boat/water craft/recreation equipment rentals, marine sales and services, fishing/hunting guide service, RV campground with utility hook-ups, and swimming beaches

Approximately 47 percent of the perimeter of the state recreation area is buffered by public lands that are administered by the BLM. Those lands are located primarily along the eastern boundary, extending to the Jiggs Highway, and the north boundary, with the exception of private lands in the south half of Section 3, Township 32 North, Range 55 East. The remaining public lands are sparsely intermingled with private lands along the southwestern boundary.

The special recreation management area identified by the BLM includes the South Fork Canyon and a portion of the historic Elko-Hamilton Stage Route along the western boundary of the Western Hills Subdivision and lands along Tenmile Creek to the South Fork of the Humboldt River. This area is shown in Figure 12. The South Fork Canyon Area is the most sensitive area within the plan boundary because of its steep slopes, highly erodible soils, and flooding potential. The canyon area also provides pre-historic as well as

historic values, scenic values, natural features, key wildlife habitat, and recreational opportunities. The historic Hastings Cut-Off of the California Emigrant Trail also follows the river through the canyon. Lands in the Special Recreation Management Area that are managed by the BLM are intermingled with privately owned lands. The BLM has no jurisdiction over the privately owned lands.

The BLM is in the initial phase of developing a management plan for the lands within this area that they administer, envisioning a river launch point and sanitation facilities in order to enhance water-based recreation. The exact location of these amenities is dependent upon negotiations such as easements, land exchanges, and a management agreement with the Division of State Parks. Commercial activities within this area in relation to recreational uses may occur if there is a demand for such activities, but structural development in addition to amenities developed by the BLM will be discouraged.

Camping facilities will not be constructed on BLM-administered lands that are within the flood plain of the South Fork Canyon Area downstream from the dam.

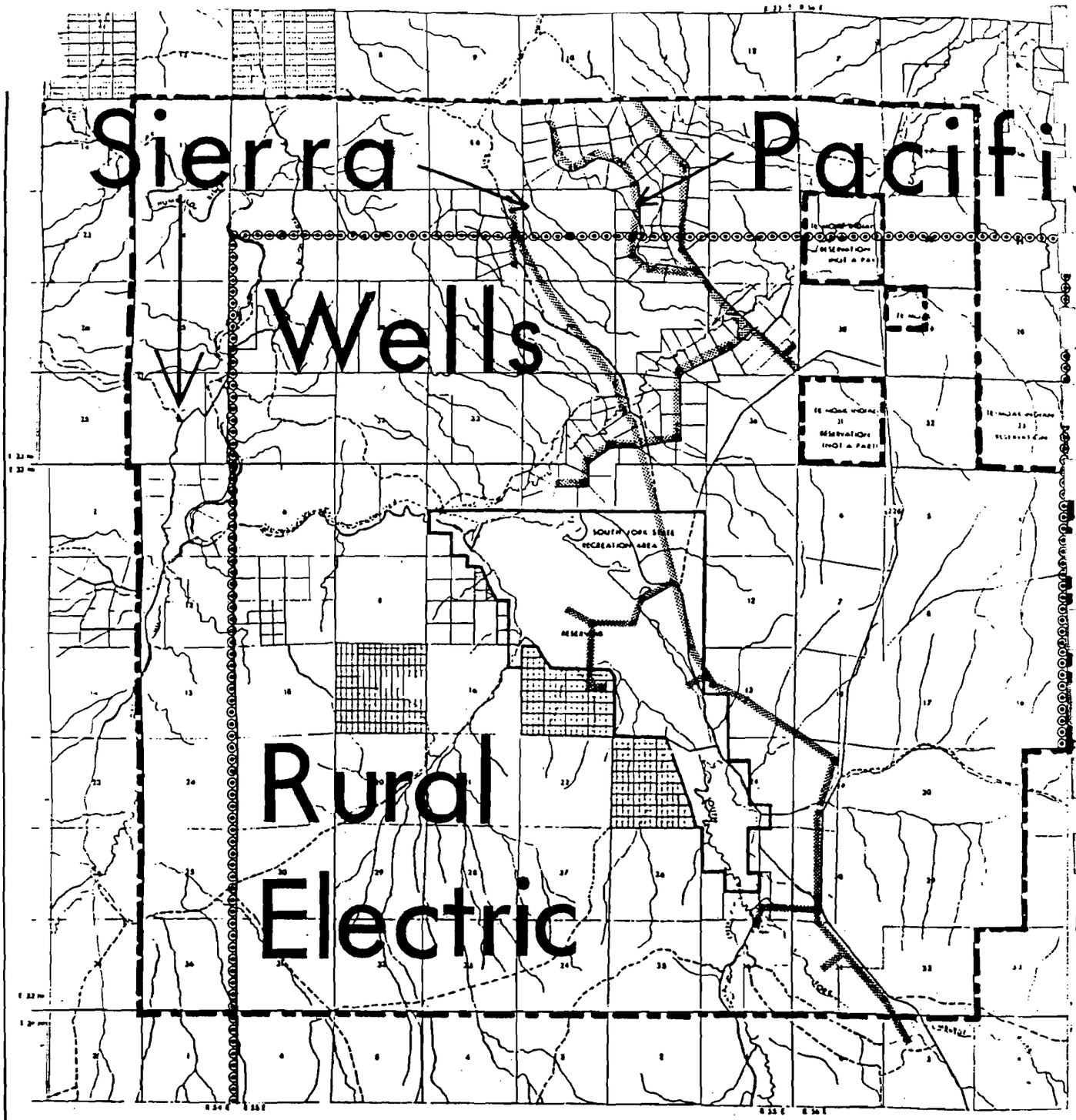
FIRE PROTECTION. The South Fork plan area is currently served by a fire protection district that is administered by the Nevada Divison of Forestry in accordance with NRS 473. This fire district was formed in order to provide fire protection for the unincorporated portions of Elko County. The Board of County Commissioners serves as the board of directors for this district. The existing fire station that is located in the Tenmile Creek area of the Western Hills Subdivision is managed by the Nevada Division of Forestry in cooperation with Elko County through an inter-local agreement.

POLICE PROTECTION. Police protection for the South Fork plan area is currently provided by the Elko County Sheriff's Department.

WASTE DISPOSAL. There are no public services within the plan area for liquid or solid waste disposal. Individual sewage disposal systems are the responsibility of individual property owners and are required to meet local and state health regulations.[1] The nearest sanitary land fill is located in the Spring Creek area approximately three miles east of the intersection of the Jiggs Highway and the Lamoille Highway.

UTILITIES. Public utilities within the South Fork area plan are electrical and telephone service. Telephone service is provided by C.P. National, Inc., and electrical service is provided by Wells Rural Electric Company and Sierra Pacific Power Company. The service areas and existing power lines as they pertain to the plan area are shown in Figure 18.

[1] Nevada Administrative Code, Chapter 444, Regulations Governing Individual Sewage Disposal Systems, dated July 20, 1982; administered by the Nevada State Division of Health, Consumer Health Protection Services, Carson City, Nevada 89710



LEGEND

Service Territory Boundary

Existing Power Lines

PLAN BOUNDARY

N

1" = 8000'

SOUTH FORK AREA PLAN

ELKO COUNTY PLANNING COMMISSION

ELECTRICAL POWER SERVICE TERRITORIES WITHIN PLAN BOUNDARY

Figure 18

Prepared by the State Land Use Planning Agency

SUMMARY OF WORKSHOPS AND PUBLIC HEARINGS

During the development of the South Fork Area Plan, four public workshops and five public hearings were held. Each workshop and hearing is summarized in the chronology below.

March 11, 1987, Workshop. Information that had been gathered to date was presented to the public. That information consisted primarily of existing zoning, land ownership, land use, wildlife habitat, slope classifications, and road classifications. The purpose of this workshop was to gather information that would be useful in drafting plan goals, objectives and policies.

June 10, 1987, Workshop. The purpose of this workshop was to gather public input during the process of reviewing the goals and objectives that were drafted. the first draft of the plan, consisting of those portions of background information that had been prepared to date, was also made available for public review.

October 3, 1987, Workshop. The purpose of this workshop was to present information to the Planning Commission that had been prepared since the June 10 workshop, primarily regarding water resources and plan alternatives. Access to the state recreation area was also discussed. The Planning Commission favored Alternative I as the preferred plan because it was the closest to providing a population potential that would be within the estimated amount of available water resources. This preference was based on the source of information available at that time. The Planning Commission also favored a circulation plan that would provide an interim solution to concerns about access and allow for the circulation element of the master plan for the state recreation area and the South Fork Area Plan to be re-evaluated at a later date.

The interim solution included considerations by the Division of State Parks to install any fee-collection station, at least on a temporary basis, nearer to the north access, and re-evaluation of the circulation element of the master plan for the state recreation area as well as the South Fork Area Plan.

Public Input. Access to the state recreation area was consistently the issue that raised the most concern during each workshop, particularly in relation to the intent of the park master plan to eventually close the existing county road at the northern park boundary and develop a permanent main access road near the southern boundary.

Other issues of concern in relation to the master-planned access included fire protection and response time, distance from Elko to facilities within the state recreation area, and fencing along the new access road serving the Lucky Nugget subdivision to deter the possibility of free access in that area.

Members of the public who attended the workshops generally supported the goals and objectives as drafted. Emphasis was repeatedly placed on allowing a very limited amount of commercial activity within the plan area, and that any such activity be compatible with commercial uses anticipated within the state

recreation area. This concept was based on an intent to keep the majority of commercial activity within the Elko urban area. The location of any commercial activity within the plan area was a general concern, with an interest in limiting the size of any commercial area, being specific about the location-primarily along the Jiggs Highway, and implementing strict enforcement measures.

Other comments received during workshops include the following:

1. Forty-acre lots in the Tenmile Creek area of the Western Hills Subdivision to prevent further division of the meadowlands;

2. Ten-acre lots in the upper portion of the Western Hills Subdivision;

3. Limit further subdividing within the plan area to parcels not less than forty acres in size;

4. Limit further subdividing within the plan area to parcels not less than ten acres in size;

5. A need for additional residential lots;

6. Implement restrictions that would prevent junked cars from being stored within public view;

7. A need for fencing areas where range cattle create problems for property owners;

8. Strong favor of open space;

9. Protect meadowlands by discouraging further parceling;

10. Protect wildlife on private property; particularly in the Tenmile Creek area;

11. Protect aesthetic values and visual resources;

12. Protect historic features;

13. Allow commercial activity on private property abutting the northern boundary of the state recreation area, including uses such as camp sites, boat rentals, boat storage, and a boat service station in the Western Hills Subdivision;

14. Opposition to commercial activity being monopolized within the state recreation area;

15. Opposition to mobile home parks;

16. Caution about potential for spot zoning;

17. Implement regulations that would prevent improper grading and require revegetation and/or reclamation practices; and

18. Opposition to additional private lands being created by the disposal of BLM lands.

November 4, 1987, Public Hearing. The first public hearing for the purpose of adopting the South Fork Area Plan was held by the Elko County Planning Commission, with approximately 30 people in attendance. A chronology of the steps taken prior to that date in relation to the development of the plan was summarized. Information concerning circulation, natural constraints, limiting factors pertaining to the availability of water resources, and plan alternatives was presented to the public. The location of the permanent main access to the state recreation area and water resource information were the most critical issues of concern during the public hearing.

As for access, at a day meeting on November 4, 1987 the Board of County Commissioners rescinded a 1984 decision to support the location of the main entrance to the state recreation area near the southern boundary and to close the existing county road at the north boundary. Further action by the Commissioners on November 4 was to (1) improve the county road from the Twin Bridges turn-off to the new road that serves the Lucky Nugget subdivision, and (2) determine feasibility and public support of a new county-maintained access either in a direct line westward from the Jiggs Highway to the north park boundary, or improvement of the existing county road.

Regarding water resources, concerns were raised about the date of the source of information from which the Water Resource section of the plan was prepared, and public participants sought an update of that information.

Because access and the availability of water resources were key factors in preparing plan alternatives, the result was a call for a second public hearing.

March 2, 1988, Public Hearing. A second public hearing held by the Elko County Planning Commission was attended by approximately 35 people. Discussion of the access and water issues resumed after a brief overview of the process.

Access to the state recreation area from its northern boundary was supported by the planning commissioners, but because the permanent main access road is currently master-planned for the southern area of the park, reference to the exact location in the circulation element of this plan could not be resolved. Until this issue is resolved, the exact location of commercial recreational uses could not be determined.

In response to public desire to seek an update of available water resource information, it was reported to the planning commissioners that an official update would be extremely costly and time consuming. Detailed presentations by professionals in the fields of hydrology, geology, engineering, and legal issues theorized that the amount of water resources available for residential use within the plan area is much greater than estimated in the Water Resources section of the plan. Theories were based on field experience, the

assumption that the percentage of groundwater recharge is considerably greater, and that the actual amount of daily use is much less than the statutory maximum of 1,800 gallons per day per dwelling unit that can be pumped from a domestic well.

April 27, 1988, Public Hearing. A third public hearing held by the Elko County Planning Commission was attended by approximately 30 people. A proposal of higher densities and more areas of commercial uses was presented. The proposal included one-acre, two and one-half to five-acre, and ten-acre parcels within the plan area and four areas of commercial. The proposal represented a total population potential of approximately 20,000. There was substantial public opposition to the development of parcels of less than ten acres in size and support for retention of the rural characteristics, agricultural, and open space uses, and for protection of the resources.

The Planning Commission did not support the expansion of commercial land use designations within the plan area and directed the State Land Use Planning Agency to revise the plan to emphasize that no commercial activity should be allowed to occur until development of the area supports the demand for such uses.

After reiterating their intent as to the location of commercial recreational uses as specified at the close of the March 2 public hearing, the Planning Commission adopted the South Fork Area Plan by a unanimous aye vote.

The plan depicted all private land within the plan area as one dwelling unit for each ten acres, with the exception of the Lucky Nugget subdivisions and areas designated as a "Special Area." The latter included all areas identified as being prone to flooding and areas within the South Fork Canyon having extremely steep slopes. The density factor for lands within the "Special Area" was one dwelling unit for each forty acres.

A certified copy, including the land use plan map, was forwarded to the Board of County Commissioners by Resolution No. PC 19-88, recommending that a public hearing be held by that body and that the South Fork Area Plan be adopted.

November 15, 1988, Public Hearing. The fourth public hearing was held by the Board of County Commissioners and was attended by approximately 40 people. A summary of the plan and an explanation of the land use plan map as adopted by the Elko County Planning Commission were presented. Questions were raised about the resolution of the access issue and the location of commercial land use designations. Discussions from previous public hearings about these issues were reiterated.

The Board of County Commissioners was requested to consider the designation of certain areas for commercial development. The proposal included the designation of areas for recreation-oriented commercial development on private land adjacent to the north and southwestern boundaries of the state recreation

area. It also included the designation of areas for residential-oriented commercial development along the Jiggs Highway at its intersection with existing roads that provide access to the state recreation area from the north and from the south.

Action on the adoption of the South Fork Area Plan was tabled until February 15, 1989, at which time the Board of County Commissioners requested the Elko County Planning Commission to consider possible alternatives that would be more compatible with the available resources, natural constraints, availability of county services, and the rural characteristics of the area.

June 21, 1989, Workshop. The Elko County Planning Commission discussed alternatives as requested by the Board of County Commissioners, and after further discussion during their regular meeting on August 23, 1989, reported a recommendation. In summary, the Report recommended that Commercial Recreation and Neighborhood Commercial land use designations be eliminated. It also recommended that all areas designated as one dwelling unit for each ten acres be changed to one dwelling unit for each forty acres. The justifications for these recommendations are included in the Report that appears in the front of the Plan.

January 17, 1990, Public Hearing. The Board of County Commissioners adopted the South Fork Area Plan as recommended by the Elko County Planning Commission.

SOUTH FORK AREA PLAN

PART II: THE PLAN

FINDINGS

GENERAL. The development of the South Fork Area Plan is a result of the intent of the Elko County Planning Commission to protect the resources as well as the health, safety, and general welfare of the public. This action is in accordance with the statutory authority of the planning commission and the Elko County General Plan. Specific findings are listed below:

1. General Plan. A General Plan for Elko County was prepared in 1971 in accordance with a 1969 contract between Elko County, the State of Nevada, and a private consulting firm with financial assistance through a federal planning grant. The General Plan provides a basis for regulating development within Elko County, protecting resources, and implementing other measures necessary for effective land use planning through the enforcement of a zoning ordinance.

2. Nevada Revised Statutes. NRS 278.170 provides the planning commission with the authority to adopt a master plan for all, or any part, of the area within their jurisdiction.

3. Planning Commission. The Elko County Planning Commission recognized the increased public interest in the South Fork area because of the reservoir and recreational potential, and in keeping with the goals of the General Plan, called for the development of an area master plan. A geographic boundary for the South Fork Area Plan encompassing approximately 88 square miles was established on August 27, 1986, and amended to 92 square miles on January 28, 1987.

INVENTORY. An analysis of the inventories conducted as a part of the South Fork Area Plan concludes that there are certain areas in which development should be limited. Those limitations are further described as follows:

1. Historic and Prehistoric Features. The area identified by the BLM as the South Fork Special Recreation Management Area includes valuable historic and pre-historic features.

2. Natural Features. There are natural features and sensitive areas located mainly in the South Fork Canyon area that include golden eagle and prairie falcon nesting areas and fragile land forms.

3. Natural Resources. Available hydrological information indicates that water resources within the plan area are limited. Dense concentrations of residential development could adversely affect groundwater recharge capabilities.

4. Natural Constraints. Soil capability and slope constraints in certain areas will limit development capabilities, as will the low-lying areas along the South Fork of the Humboldt River, Huntington Creek, Dixie Creek, and Tenmile Creek, which are prone to flooding. The

storage of water in the reservoir could raise the water table on adjacent lands; however, the extent of infiltration, if any, cannot be determined until water is actually stored in the reservoir. There is a possibility that this factor, if it occurs, could place limitations on the location or design of individual sewage disposal systems within the low-lying areas of the Lucky Nugget Subdivision at some time in the future. There are also earthquake faults located in certain areas as shown in Figure 5. These faults are located primarily on lands administered by the BLM or in areas where anticipated development is relatively sparse.

GOALS AND OBJECTIVES

LAND USE

Goal. To promote the use of the plan area in the interest of existing argicultural uses, the rural characteristics of the area, residential needs, and recreational activities on public lands.

Objectives. The objectives of the South Fork Area Plan in relation to land use are:

1. **Agricultural.** Promote the retention of existing agricultural uses including livestock grazing within areas designated as open space.

2. **Residential.** Promote residential development at a density level that is compatible with the rural characteristics of the area, public services, and available resources.

3. **Recreational.** Promote the preservation of existing natural recreational amenities within the South Fork Area as much as possible for present and future generations.

NATURAL RESOURCES

Goal. To protect the renewable and nonrenewable natural resources within the plan area.

Objectives. The objectives of the South Fork Area Plan in relation to protecting natural resources are:

1. **Sensitive Areas and Natural Features.** Promote the preservation and protection of sensitive areas and natural features.

2. **Soils.** Promote development practices that would minimize soil erosion and discourage disturbances in sensitive areas.

3. **Wildlife.** Protect significant wildlife habitat, including wetlands, riparian areas, and range lands from adverse impacts caused by incompatible development activities.

4. **Water Resources.** Protect water resources from pollution by individual sewage disposal systems or other methods of sewage or waste disposal that may adversely affect the supply of water, protect water supplies from potentially adverse impacts caused by the development of future water systems, promote a level of development that will be within the availability of the water resources in the area, promote the protection of riparian areas in relation to groundwater recharge, and promote water conservation practices whenever possible.

5. Utilization of Natural Resources. Promote utilization of available natural resources in a manner least detrimental to other land uses, encourage rehabilitation practices in areas disturbed by the extraction of minerals and petroleum products, and promote the protection of wildlife and livestock, whenever possible, from endangerment caused by extraction operations.

DEVELOPMENT

Goal. To promote development within the limitations of available resources.

Objectives. The objectives of the South Fork Area Plan in relation to development are:

1. Focal Point. Promote development in a manner that will establish the South Fork State Recreation Area as the focal center of the plan area.

2. Growth Rate and Carrying Capacity. Promote a development pattern that will not jeopardize public services, transportation facilities, natural resources, and the overall quality of life within the plan area.

3. Development Policies. Develop policies that address the protection of natural features, cultural resources, visual resources, open space, and enhancement of the quality of lifestyle within the plan area.

4. Circulation. Provide adequate roadways for proper circulation within the plan area and promote land use patterns that are consistent with the circulation network and availability of public services and natural resources.

5. Public Facilities. Promote orderly growth and development of public facilities and address future expansion of public services including police and fire protection, sewage disposal facilities, educational facilities, and other community services as warranted by development of the area.

NATURAL HAZARDS

Goal. To promote protection of the natural resources and the users of the land from the perils of natural hazards.

Objectives. The objectives of the South Fork Area Plan in relation to natural hazards are:

1. Fire. Provide a fire protection plan that can be expanded to maintain adequate services as development of the area increases.

2. Flood. Discourage development in areas that are prone to flooding in order to prevent the loss of lives and property.

3. Earthquake. Provide a method of protecting lives and property from potential risk caused by seismic activity.

4. Emergency Management. Provide emergency management procedures that are in a constant state of readiness in the event that a disastrous situation occurs.

PLAN POLICIES

AGRICULTURAL

Continued agricultural use of meadows, irrigated pastures, and public lands and open space for livestock grazing should be encouraged.

RESIDENTIAL

The density of residential development should be maintained at a level that is low enough to preserve the rural characteristics of the area and not be detrimental to the resources.

Consideration should be given to limiting densities when the following conditions exist:

1. Slopes in excess of 25 percent
2. Fragile land forms
3. Severe soil limitations
4. Earthquake fault lines
5. Pre-historic and historic values
6. High-density wildlife habitat

Residential development in areas that have been identified as having a potential for flooding should be discouraged.

The density of residential development should be consistent with the land use designations for the South Fork Area Plan.

Only single family dwelling units should be allowed, and each unit should be in separate ownership on an individual lot.

RECREATION

Areas of recreational use should be segregated into two categories: (1) the state recreation area; and (2) the BLM special recreation management area.

1. **South Fork State Recreation Area.** The state recreation area should be the focal point of the plan area. It should be buffered from private development through the encouragement of retaining BLM-administered lands adjacent to its boundaries in public ownership.

2. **South Fork Canyon Special Recreation Management Area (BLM).** The special recreation management area will provide recreational opportunities such as hiking, trail rides, water-related activities, or other similar uses that would cause minimal impact to the area. Commercial enterprises in relation to recreational uses within the special recreation management area, such as trail rides, guide

services, raft rentals or other water oriented uses should be limited to lands that are managed by the BLM. Structural development within this area should be limited to amenities developed by the BLM.

The exchange of private lands for other lands managed by the BLM that are outside the boundaries of the special recreation management area should be encouraged in order to protect this sensitive area.

PUBLIC

There are two categories of public land within the plan area: (1) land managed by the BLM, and (2) land managed by the State.

1. Land Managed by the BLM. Management of these lands should continue under the multiple use concept and in accordance with the 1987 Elko Resource Management Plan prepared by the Elko District Office of the BLM. Exchanges of private land within the Special Recreation Management Area for other land managed by the BLM should be encouraged, with the exception of public land adjacent to the state recreation area. The land exchange supported by the County prior to development of the South Fork Area Plan should proceed, but acreage of public land should otherwise remain constant.

2. Land Managed by the State of Nevada. These lands will be managed by the Nevada Division of State Parks in accordance with the Master Plan for the South Fork State Recreation Area.

CIRCULATION

As the residential density within the South Fork plan area increases, air quality and public health and safety will become more affected by dust generated by traffic on the unpaved roads. Consideration should be given to addressing this problem by oiling or paving those roads most heavily travelled as the area develops.

Any new roads that are developed within the plan area should be done so in consideration of the natural topography and soil constraints in order to avoid the potential for excessive erosion. Further, any future roads should align with existing maintained roads whenever possible in order to provide a functional pattern of circulation.

The circulation pattern of the South Fork Area Plan in relation to the state recreation area should be consistent with the park master plan. The Master Plan for the South Fork State Recreation Area will be re-evaluated at such time as the recreational facilities are more fully developed. The circulation element of both plans should be re-evaluated concurrently.

PUBLIC FACILITIES

The need for public facilities and services for the plan area, as well as their respective locations, must be determined by the rate and location that growth actually occurs. The sparse development of the plan area at the present time, which includes approximately 40 single family dwelling units, does not justify the need for additional facilities. However, in order to meet the objectives of the plan and promote health, safety, and general welfare of the area, this element of the plan should be re-evaluated during periodic reviews of the entire South Fork Area Plan.

Public facilities and services that should be considered in a review process include, at a minimum, police and fire protection, water supply, waste disposal, utilities, and educational facilities.

POPULATION

If all privately owned land is developed according to the land use designations of the land use plan map for the South Fork Area Plan, there will be a potential population of approximately 3,360 or 1,260 single family dwelling units. Population figures in this plan are in accordance with the U.S. Bureau of the Census - 1980, which indicates that the average number of persons per dwelling unit in Elko County is 2.67. Table VII, indicates acreages of the various land use designations and specific figures in relation to dwelling units and population potential within the plan area.

TABLE VII

POPULATION POTENTIAL FOR THE PLAN

	DWELLING UNITS (DU)				POPULATION		
Residential Designation	Total Acres	Acres Per DU	100% Buildout	Existing Buildout	Persons Per DU	100% Buildout	Existing Buildout
Medium Density	1,457	2	616	5	2.67	1,644	13
Low Density	25,800	40	645	33	2.67	1,722	87
TOTAL	-	-	1,261	38	-	3,366	100

The figures in this table do not reflect a relationship between population potential and water resources. It should be noted that more than 9,000 acre feet of groundwater within the plan area have been appropriated by the State Engineer for irrigation and recreational uses. It should also be noted that the owners of the 778 lots within the plan area that already exist are entitled to seek the necessary building permits to develop their lots for single family

residential uses. Including the appropriation of water for these lots, the net deficit of groundwater resources is in excess of 7,000 acre feet. Therefore, increased densities in excess of the population potential projected in this plan could result in negative impacts on the users as well as the resources.

As development occurs within the plan area, including the buildout of existing lots, certain precautionary measures should be taken to guard against adverse impacts on water supply systems that serve existing dwelling units and on the water supply as a whole. Methods of accomplishing these protective measures include, but are not necessarily limited to the following:

1. Strict monitoring of the location of wells and sewage disposal systems in order to minimize any adverse impacts on the ability of adjoining land owners to locate their wells and sewage disposal systems;

2. Monitor wells as development occurs to determine whether adverse impacts on existing water supplies have occurred;

3. Coordinate with the State Engineer's office to determine whether new information regarding the availability of water resources within the plan area is available; and

4. Incorporate any pertinent new information into the plan as soon as possible.

The location of individual sewage disposal systems and the depth of the water table on lots at the lower elevations of the Lucky Nugget Subdivision in Section 15, Township 32 North, Range 55 East, should be carefully monitored to determine whether any changes occur as a result of water being stored in the reservoir. If changes occur, the plan should be amended to include that information.

State regulations that govern individual sewage disposal systems require such systems to be up to 150 feet from streams or water courses, depending on the type of system. This would include the reservoir, the South Fork of the Humboldt River, Huntington Creek, Dixie Creek, and Tenmile Creek. This should be taken into consideration during the process of reviewing proposed development within the plan area.

To insure that the plan goals and objectives are being met, other issues that should be considered during the process of reviewing new proposals for development within the plan area should include, but not be limited, to the following:

1. Any potential impacts that a proposed development may have on public facilities;

2. The location of proposed roads in relation to potential impact to sensitive areas and whether such roads are consistent with the circulation element of this plan;

3. Any potential impacts that natural constraints may have on a proposed development, such as flood prone areas or areas of known earthquake faults; and

4. Any potential impact that a proposed development may have on the resources, such as areas of key wildlife habitat, riparian areas, sensitive areas such as the South Fork Canyon, areas with severe soil constraints, cultural resources, or visual resources.

GENERAL

Residential development should occur in a manner that will minimize impairment to the resources and promote the health, safety, and general welfare of the public. Consideration should be given to the following when reviewing development proposals.

1. Protection of natural features, cultural resources rural characteristics, visual resources, and open space;

2. Topography and other land features;

3. Protection of livestock and wildlife through signing, fencing, and/or cattleguards as necessary;

4. Minimize soil erosion and vegetative disturbances;

5. Minimize stream sedimentation in order to protect resource values, including groundwater recharge, riparian areas and wildlife habitat, recreational opportunities, and aesthetic values;

6. Seek additional professional research in relation to hydrology, drainage, soil characteristics, geology, archaeology or other fields as may be necessary in order to meet plan objectives, when a proposed development appears to be detrimental to the resources, fragile or sensitive areas, or to the health, safety and general welfare of the public;

7. Water supply and sewage disposal systems that comply with state laws;

8. Provision of a continuous supply of water that is of an acceptable quality;

9. Drainage designs that will prevent damage to properties as well as the resources;

10. Easements for drainage and public purposes such as utilities;

11. Design standards for lots, streets, and roads that will minimize negative impacts;

12. Adequate legal access either through dedication or right of way easements;

13. Consideration of topographical features and public safety in accordance with state regulations in relation to access from the Jiggs Highway and the entrance road to the state recreation area;

14. Limited or prohibited development in areas known to be subject to natural hazards unless safe mitigative measures can be taken;

15. Method of assuring that sufficient funds will be available to complete all necessary improvements and that the completion of those improvements will be timely;

16. Flexibility to enter into development agreements with land owners in order to minimize impairment to the resources and promote the health safety, and general welfare of the public as set forth in the Plan Policies.

LAND USE DESIGNATIONS

The pattern of the residential land use designations on the Land Use Plan Map represent a density that is consistent with the rural, agricultural, and open space characteristics of the South Fork plan area and should not be detrimental to the resources. The following is a brief description of the land use designations within the plan area and the uses that are intended for the lands within those designations.

PUBLIC OPEN SPACE. The intent of this land use designation is to identify undeveloped lands that are administered by a governmental agency. All of the lands shown on the Land Use Plan Map as "Public Open Space" are lands managed by the BLM or lands that will be managed by the BLM once the proposed land exchange is consummated. Other private lands that become public as the result of exchanges should be designated as "Public Open Space," and other public land exchanged for private land should be designated as "Low Density Residential."

STATE RECREATION AREA. The lands shown on the Land Use Plan Map as "State Recreation Area" are lands that are owned by the State of Nevada or leased by the State from the BLM for recreational purposes with the intent of a patent being issued. This area will be managed by the Division of State Parks as the South Fork State Recreation Area.

MEDIUM DENSITY RESIDENTIAL. The intent of this designation is to identify lands that have been subdivided into parcels that are less than ten acres in size. All of the parcels within this designation are near the boundary of the state recreation area. The density factor of two acres for each dwelling unit is intended to minimize the potential for further development of this area in order to be consistent with the policies of the South Fork Area Plan. There is also a potential for resource constraints to place limitations on further development of the areas within this designation. Permitted uses within this designation should be limited to single family residential with incidental agricultural uses and home occupations as defined in the AR, Agricultural Residential District. Commercial activity should not be allowed.

LOW DENSITY RESIDENTIAL. The intent of this designation is to identify lands within the plan area that are currently being used for open space, agriculture, or single family residential uses. The density factor of forty acres for each dwelling unit will retain the rural and open space characteristics of the plan area and minimize impairment of the resources. Noncommercial recreational activities such as hunting, fishing, or other similar uses should be allowed within this designation, provided that there are no structural improvements. Commercial activity should not be allowed.

PLAN IMPLEMENTATION

ZONING REGULATIONS.

Implementation. The principal means of implementing the plan proposals will be through the use and application of Title 4, Zoning Regulations. The zoning districts and the regulations of each district will largely determine the uses that will occur on the lands within the South Fork Area Plan. Therefore, it is important to establish zoning districts that are consistent with the land use designations indicated on the Land Use Plan Map.

Guidelines. For effective implementation of the plan, the following guidelines should be followed:

1. Establish zoning districts that will be consistent with the land use designations of this plan;

2. Rezone the areas where existing zoning districts are inconsistent with the designations of this plan to zoning districts that are consistent; and

3. Retain consistency between zoning districts and the designations within the plan area.

Land Use Designations and Zoning Districts. The following is a summary of the land use designations and the zoning districts that would be appropriate in order to attain consistency with each designation.

1. Public Open Space. Zoning districts for lands in this designation should be consistent with the open space districts that are described in this section as appropriate zoning districts for lands designated as Rural Residential and Special Area. It is intended that the zoning district referred to in this section as the "OS40, Conservation Reserve District" would apply to public lands within the Special Area designation. The "OS, Open Space District" would apply to the remaining public lands.

2. State Recreation Area. An appropriate zoning district for lands within this designation would be the "P, Public District," which is provided for in Title 4, Chapter 6, of the Elko County Zoning Regulations.

3. Medium Density Residential. An appropriate zoning district for lands in this designation would be "AR-2, Agricultural Residential." This would require a minor revision to the "AR, Agricultural Residential District" as provided in Title 4, Chapter 6, of the Elko County Zoning Regulations. The minimum parcel size in this zoning district should not be less than two acres. Any existing parcels within this zoning district that are less than two acres would be considered as "legal non-conforming lots," and would have the same rights of development as two-acre parcels within the same district.

5. Low Density Residential. An appropriate zoning district for lands within this designation would be an open space district that would protect areas where resource constraints limit the distribution and density of residential development. This would require the establishment of an "OS40, Conservation Reserve District." The minimum parcel size in this zoning district should not be less than forty acres. Any existing parcels within this zoning district that are less than forty acres would be considered as "legal non-conforming lots," and would have the same rights of development as forty-acre parcels within the same district.

Combined Districts. There are four "Combined Districts" as defined in Title 4, Chapter 7, of the Elko County Zoning Regulations that may be appropriately applied to the South Fork Area Plan. Those districts are (1) "FG, Fish and Game Critical Areas," (2) "FP, Flood Plain Districts," (3) "GW, Groundwater Districts," and (4) "ML, Meadowlands Districts." Those districts are further described as follows:

1. "FG, Fish and Game Critical Areas." The intent of these districts is to establish recognition of designated areas of wildlife habitat that provides notice to prospective developers and land owners that special planning considerations are required in such areas.

2. "FP, Flood Plain Districts." The intent of these districts is to establish recognition of flood plain areas in order to provide notice to prospective developers and land owners that flooding may be expected in given areas.

3. "GW, Groundwater Districts." The intent of these districts is to establish recognition of a groundwater condition that provides notice to prospective developers and land owners that a specific condition may be expected in a given area.

4. "ML, Meadowlands." The purpose of these districts is to establish recognition of a meadowland designation for specific agricultural lands.

SUBDIVISION REGULATIONS.

Implementation. The arrangement of land uses within the South Fork Area Plan will involve the application of Title 5, Subdivision Regulations. Effective use of these regulations should provide the following:

1. Lots of sufficient size and appropriate design for the use intended;

2. Preservation of environmental assets;

3. Densities of land uses commensurate with the natural capabilities of the land;

4. An aesthetically pleasing environment;

5. Streets and highways with adequate width, location and design; and

6. The necessary improvements to protect the health, safety, and general welfare of the public.

Consistency. The subdivision regulations and the Plan Policies of the South Fork Area Plan are generally consistent; therefore, only minor, if any, changes in those regulations would be necessary for proper implementation of The Plan.

GENERAL IMPLEMENTATION.

General Policies. Depending on the type of development that is proposed within the plan area, zoning and subdivision regulations may not thoroughly provide the avenue of implementation that is intended in the plan. If this occurs, implementation should be made with reference to the General Policies of the South Fork Area Plan whenever possible.

ACKNOWLEDGEMENTS

BOARD OF COUNTY COMMISSIONERS

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APPENDIX

APPENDIX

SPECIFIC STATUTORY PROVISIONS

The basic statutory provisions are specified in Part I of this plan. The following statutes pertain specifically to procedural requirements in developing the plan as well as adoption and implementation.

NRS 278.160 specifies that the master plan include certain subject matter, or portions thereof as appropriate, from which the basis for the physical development of an area may be made. Included in those elements is a land use plan, which is defined in NRS 278.160 (e) as an inventory and classification of natural land types and of existing land cover and uses, and comprehensive plans for the most desirable utilization of land.

NRS 278.170 provides the planning commission with the authority to adopt a master plan for all, or any part, of the area within their jurisdiction. This statutory authority is pertinent to the development of the South Fork Area Plan.

NRS 278.180 requires the planning commission to notify the school district when the development of a master plan includes community design. This is to insure that school sites are adequately and properly located. The community design element of a master plan is defined in NRS 278.160 (a) as standards and principles governing the subdivision of land and suggestive patterns for community design and development.

NRS. 278.210 pertains to the procedures for adoption of a master plan by the planning commission. The planning commission must hold at least one public hearing prior to adopting a master plan, and at least ten days prior to the hearing, publish a notice in a newspaper of general circulation. Adoption of a master plan by the planning commission must be done by a resolution which refers expressly to the maps, descriptive matter, and other matter intended to constitute the plan. The action taken by the planning commission must then be recorded on the map, plan, and descriptive matter by the identifying signatures of the secretary and chairman. An attested copy of the master plan is then certified to the governing body for its consideration.

NRS 278.220 sets forth the requirements for the governing body when adopting a master plan. The governing body must also hold at least one public hearing and publish a notice in a newspaper in the same manner as prescribed for the planning commission. Endorsement and certification of the master plan as adopted by the planning commission establishes a plan to conserve and promote public health, safety, and general welfare. Any changes in the master plan must be referred back to the planning commission for a report. Failure of the planning commission to attest the changes and report to the governing body within 40 days, or a longer period of time as designated, constitutes approval of the changes.

NRS 278.230 addresses the master plan being put into effect by the governing body. Upon a recommendation by the planning commission, the governing body shall determine reasonable and practical means of putting the master plan into effect in order to serve as a pattern and guide for orderly physical growth and development which will cause the least amount of natural resource impairment, and is a basis for the efficient expenditure of funds thereof relating to the subjects of the master plan. The governing body may adopt and use such procedures as may be necessary for this purpose.

NRS 278.240 requires the planning commission to approve acquisition or abandonment of streets, parks, open space, etc., and construction of public buildings in an area that has an adopted master plan.

NRS 278.260 provides statutory authority to the governing body to amend the boundaries of zoning districts and zoning regulations. This would be applicable in the event the South Fork Area Plan constitutes the need for such amendments.

TABLE VIII

PHYSICAL LOCATION OF SOIL ASSOCIATIONS

	ALLUVIAL								FLOOD PLAINS		
	Sloping Fan	Fans	Dissected Fans	Inset Fans	Peidmont Remnants (Fans)	Plains	Fan Skirts	Drainages	Flood Plains	Axial Stream	Remnant
110		c					a		b		
149						a		a	a,b		
152					b						
206											
222			a		b			a			
226		b	a					a			
228			a			b		a,b	b		
261											
291				a			b		a		
323		c	b								b
324											
325		c									
378		a	c								c
442									a		
489											
490	c	a				c					
491		a									
710											
813		c									
839				b					b,c	a	
972		c									
973											

NOTE: See Table XI for description of soil series a, b, and c.

PHYSICAL LOCATION OF SOIL ASSOCIATIONS

	HILLS					SLOPES			TERRACE		
	Hills	Low	Plateaus	Mountain Ridges	Terraces	Foot	Mountain	Side	Back Slopes	Dissected	Low Stream	Uplands
110											b	
149												
152	b		b						c	a		
206		b,c		b			a			b		
222	b		b						c	a		
226					b					a		
228										a		
261		c						c		c		c
291												
323		a								b		
324	b	a										
325		a			c							
378								b		c		
442												
489												c
490												b
491						b						
710	a							b				
813								a				
839												
972		a				b		b				
973		a										

NOTE: See Table XI for description of soil series a, b, and c.

TABLE IX

SOIL DEPTHS

Soil Association	Shallow	Very Shallow	Deep	Moderately Deep	Very Deep
110			b,c		a
149					a,b
152	a,c				b
206	b,c	a			
222	c				a,b
226			b		a
228					a,b
261	a			b,c	
291					a,b
323	a		c		b
324	a,b				
325	a,b		c		
378	a,b				c
442					a
489				a,c	b
490			a,c	b	
491	b		a		
710	a				b
813	a,c		b		
839					a,b,c
972	a,c				b
973	a				

NOTE: See Table XI for description of soil series a, b, and c.

TABLE X

SOIL CHARACTERISTICS

	ALLUVIUM					CONGLOMERATES			
	Gravelly	Loamy	Mixed	Silty	Basalt	Conglomerate	Sandstone	Dolomite	Limestone
110			b	b					
149				a					
152			b						
206								a	a,c
222		b	b		a		a		
226		b			a		a		
228				b	a		a		
261					a	b			
291									
323				b					
324									b
325		c							b
378				c		b			b
442	a			a					
489					c				
490					b				
491									b
710									a,b
813						a			a
839	c			a,c					
972									a,b
973									a

NOTE: See Table XI for description of soil series a, b, and c.

	Loess	Quartzite	Rhyolite	Igneous Rocks	Mixed Rocks	SANDSTONE		Sandstone
						Calcareous	Tuffaceous	
110	c				a,c			
149								
152	a						c	
206							b	
222			a				c	
226	b		a					
228			a					
261		b						b
291					a,b			
323	c				c			
324								
325	c							
378	a				a			
442								
489	c			c				
490	a,b			b	a,c			
491	a				a	b		
710								
813	c				c			
839					b			
972	c				c			
973								

NOTE: See Table XI for description of soil series a, b, and c.

	SEDIMENTS							VOLCANIC		
	Marine	Sedimentary Rocks	Tuffaceous	Shale	Mixed Silt	Siltstone	Tuff	Volcanic	Volcanic Sources	Ash
110										c
149									a	
152	a									
206				b		b				
222							a			
226							a			
228							a	b		
261		c					a	c		
291								b		
323			a						b	c
324			a							
325			a							
378									c	a
442										
489										
490										a
491										a
710										
813										c
839										
972										c
973										

NOTE: See Table XI for description of soil series a, b, and c.

TABLE XI

MAJOR SOIL ASSOCIATIONS

Symbol	Field Name and Characteristics
110	Moranch-Ocala-Oravada Association
	a. Moranch. The Moranch series consists of very deep, well drained soils formed in alluvium from mixed rock sources on fan skirts.
	b. Ocala. The Ocala series consists of deep, somewhat poorly drained soils formed in mixed silty alluvium from various rocks on floodplains and low stream terraces.
	c. Orvada. The Orvada series consists of deep, well drained soils on alluvial fans formed in alluvium from mixed rocks and loess high in volcanic ash.
149	Kelk-Sonoma Association
	a. Kelk. The Kelk series, flooded phase, consists of very deep, well or moderately well drained soils formed in silty alluvium from volcanic sources on floodplains, alluvial plains and drainages.
	b. Sonoma. The Sonoma series, drained phase, consists of very deep soils formed in alluvium on floodplains.
152	Dewar-Zevadez-Puett Association
	a. Dewar. The Dewar series consists of shallow, well drained soils formed in mixed silty alluvium, old marine sediments and loess on dissected terraces.
	b. Zevadez. The Zevadez series consists of very deep, well drained soils formed in mixed alluvium on fan piedmont remnants, hills and plateaus.
	c. Puett. The Puett series consists of shallow, well drained soils formed on terrace back slopes in material weathered from tuffaceous sandstone.
206	Hopeka-Grina-Izod Association
	a. Hopeka. The Hopeka series consists of very shallow, well drained soil formed in material weathered from dolomite and limestone on mountain slopes.

b. Grina. The Grina series consists of shallow, well drained soils formed in residuum weathered from siltstone, shale and tuffaceous sandstone on low hills, mountain ridges and dissected terraces.

c. Izod. The Izod series, cobbly phase, consists of shallow, somewhat excessively drained soils that formed in residuum weathered from limestone on low hills.

222 Enko-Zevadez-Puett Association

a. Enko. The Enko series consists of very deep well drained soils formed in mixed loamy alluvium mainly from basalt, ryolite sandstone conglomerate and tuff along drainages, dissected alluvial fans and terraces.

b. Zevadez. The Zevadez series consists of very deep, well drained soils formed in mixed alluvium on fan piedmont remnants, hills and plateaus.

c. Puett. The Puett series consists of shallow, well drained soils formed on terrace back slopes in material weathered from tuffaceous sandstone.

226 Enko-Rad Association

a. Enko. Refer to Symbol 222a.

b. Rad. The Rad series consists of deep, well drained soils formed in loess and loamy alluvium on terraces and alluvial fans.

228 Enko-Kelk Association, flooded

a. Enko. Refer to Symbol 222a.

b. Kelk. The Kelk series, flood phase, consists of very deep, well or moderately well drained soils formed in silty alluvium from volcanic sources on floodplains, alluvial plains and drainages.

261 Linkup-Roca-Vanwyper Association

a. Linkup. The Linkup, cobbly phase, consists of shallow, well drained soils formed in residuum and alluvium from tuff and basalt.

b. Roca. The Roca series, gravelly phase, consists of moderately deep, well drained soils formed in residuum from quartzite, conglomerate and sandstone.

c. Vanwyper. The Vanwyper series consists of moderately deep, well drained soils that formed in residuum weathered from various volcanic and sedimentary rocks on sideslopes of low hills, uplands, and dissected alluvial terraces.

291 Tweba-Moranch Association

a. Tweba. The Tweba series, moderately wet phase, consists of very deep soils that have altered drainage. They form in alluvium from mixed rock sources on floodplains and inset fans.

b. Moranch. The Moranch series consists of very deep, well drained soils formed in alluvium from mixed rock sources on fan skirts.

323 Grina-Kelk-Orovada Association

a. Grina. The Grina series, gravelly phase, consists of shallow, well drained soils formed in residuum from tuffaceous sediments. They are on low hills.

b. Kelk. The Kelk series consists of very deep, well drained soils formed in silty alluvium mainly from volcanic sources on remnant floodplains, dissected fans and terraces.

c. Orovada. The Orovada series consists of deep well drained soils on alluvial fans, formed in alluvium from mixed rocks and loess high in volcanic ash.

324 Grina-Samor Association

a. Grina. Refer to Symbol 323a.

b. Samor. The Samor series consists of shallow, well drained soils that formed in residuum from limestone on hills.

325 Grina-Karpp-Rad Association

a. Grina. Refer to Symbol 323a.

b. Karpp. The Karpp series consists of shallow, well drained soils that formed in alluvium from mainly limestone.

c. Rad. The Rad series consists of deep, well drained soils formed in loess and loamy alluvium on terraces and alluvial fans.

378 Chiara-Spilock-Kelk Association

a. Chiara. The Chiara series consists of shallow, well drained soils formed in alluvium from mixed rocks and loess with large amounts of volcanic ash on alluvial fans.

b. Spilock. The Spilock series consists of shallow, well drained soils that formed in alluvium from limestone and conglomerate on alluvial ballena sideslopes.

c. Kelk. The Kelk series consists of very deep, well drained soils formed in silty alluvium mainly from volcanic sources on remnant floodplains, dissected fans and terraces.

442 Devilsgait-Crooked Creek Complex Association

a. Devilsgait. The Devilsgait series, gravelly substratum phase, consists of very deep, very poorly drained soils that formed in a silty alluvium/gravelly alluvium on floodplains.

489 Hunnton-Wieland-Bioya Association

a. Hunnton. The Hunnton series consists of moderately deep, well drained soils that are formed in loamy alluvium mainly from igneous flows, limestone, conglomerate and andesitic tuff on dissected alluvial fans and terraces.

b. Wieland. The Wieland series consists of very deep, well drained soils formed in mixed alluvium from volcanic and sedimentary bedrock on dissected fans and terraces.

c. Bioya. The Bioya series consists of moderately deep, well drained soils formed in loess over residuum from basalt and other igneous rocks on uplands.

490 Orovada-Bioya-Haybourne Association

a. Orovada. The Orovada series consists of deep, well drained soils on alluvial fans, formed in alluvium from mixed rocks and loess high in volcanic ash.

b. Bioya. Refer to Symbol 489c.

c. Haybourne. The Haybourne series consists of deep, well drained soils formed in alluvium from mixed rocks. They are on nearly level to strongly sloping alluvial fans.

491 Orovada-Puett Association

a. Orovada. Refer to Symbol 490a.

b. Puett. The Puett series, cool phase, consists of shallow, well drained soils that formed in mixed colluvium and alluvium from calcareous sandstone and limestone.

710 Samor-Porrone-Rock Outcrop Association

a. Samor. The Samor series consists of shallow, well drained soils formed in residuum from limestone on hills.

b. Porrone. The Porrone series consists of very deep, well drained soils that formed in colluvium from mainly limestone rocks on sideslopes of hills.

813 Spilock-Gochea-Chiara Association

a. Spilock. The Spilock series consists of shallow, well drained soils that formed in alluvium from limestone and conglomerate on alluvial ballena sideslopes.

b. Gochea. The Gochea (Bedrock substratum phase) consists of deep, well drained soils formed in alluvium from mixed sources on sideslopes of foothills.

c. Chiara. The Chiara series consists of shallow, well drained soils formed in alluvium from mixed rocks and loess with large amounts of volcanic ash on alluvial fans.

839 Woofus-Tweba-Devilsgait Association

a. Woofus. The Woofus series consists of very deep, very poorly drained soils that formed in silty alluvium. They occur on axial stream floodplains.

b. Tweba. The Tweba series moderately wet phase, consists of very deep soils that have altered drainage. They form in alluvium from mixed rock sources on floodplains and inset fans.

c. Devilsgait. the Devilsgait series, gravelly substratum phase, consists of very deep, very poorly drained soils that formed in a silty alluvium on floodplains.

972 Izod-Porrone-Chiara Association

a. Izod. The Izod series consists of shallow, somewhat excessively drained, soils that form in residuum weathered from limestone on low hills.

b. Porrone. The Porrone series consists of very deep well drained soils that formed in colluvium from mainly limestone rocks on sideslopes of hills.

c. Chiara. The Chiara series consists of shallow, well drained soils formed in alluvium from mixed rocks and loess with large amounts of volcanic ash on alluvial fans.

973 Izod-Rock Outcrop Association

a. Izod. Refer to Symbol 972a.

Source of Information: **Soil Conservation Service, United States Department of Agriculture**

WATER RESOURCE INFORMATION

The following is a procedural explanation of each column in Table III of the Water Resources section of the South Fork Area Plan.

Column Number	Explanation
1	Total acres within each subarea.
2	Percentage that each subarea is of the entire groundwater basin (Column 1 divided by Column 16).
3	Estimated amount of groundwater within each subarea (Column 2 times Column 17).
4	Acre feet of groundwater within each subarea divided by 2.02, which is the figure used to determine the amount of water used annually for each dwelling unit. The estimated number of dwelling units in this column is the total number of dwelling units that the subarea would support without consideration to existing lots or other uses such as irrigation or recreation.
5	Total acres of each subarea divided by the number of dwelling units in Column 4.
6	Acres of lands within each subarea that are managed by the BLM.
7	The acres of BLM land within each subarea divided by the number of acres per dwelling unit in Column 5.
8	The number of dwelling units in Column 7 multiplied by 2.02.
9	The acres of land within each subarea that is within the state recreation area.
10	The acres of land within the state recreation area divided by the number of acres per dwelling unit in Column 5.
11	The number of dwelling units in Column 10 multiplied by 2.02.
12	Acres of private land within each subarea.
13	Acres of private land divided by the number of acres per dwelling unit in Column 5.
14	The number of dwelling units in Column 13 multiplied by 2.02.
15	Name of the groundwater basin in which each subarea is located.

Column Number	Explanation
16	Number of acres within the entire groundwater basin, according to the reconnaissance report used to develop the Water Resources Section of the plan.
17	Total estimated amount of annual groundwater recharge as referenced in the reconnaissance report.
18	Number of existing lots within each subarea.
19	The number of existing lots in Column 18 multiplied by 2.02.
20	Acre feet of groundwater within each subarea that has been appropriated for irrigation.
21	The number of acre feet in Column 20 divided by 2.02.
22	Acre feet of groundwater in each subarea that has been appropriated for recreational use.
23	The number of acre feet in Column 22 divided by 2.02.
24	The total acre feet of groundwater appropriated within each subarea. This is based on the following: (1) existing lots of record; and (2) permits that are of record in the State Engineer's Office. The status of those permits varies. Some have been certificated while others are pending proof of beneficial use.
25	The total number of acre feet in Column 24 divided by 2.02.
26	The total number of acre feet appropriated (Column 24) subtracted from the number of acre feet in Column 3.
27	The total number of dwelling units in Column 25 subtracted from the number of dwelling units in Column 4.

TABLE XII

SPECIFIC LAND OWNERSHIP

Ownership	Within Plan Boundary	Adjacent to Plan Boundary	Revised Acreage[1]
Bureau of Land Management	29,400		28,120
State of Nevada	3,354[2]		
McMullen, H.R. and C.R.	3,200	320	
Corta, Alice and Ray	320	1,920	
Corta, Alice	1,920		
Corta, Ray	690		1,970
Carpenter, J.C. and R.S.	1,875		
Carpenter, John C., Jr.	940		
Tomera, Yole	2,400		
Julian Tomera Ranches, Inc.	640		
Tomera, Julian and Malfisa	1,760		
Lynx Enterprises	640	1,280	
Southern Pacific Land Co.	1,280		
LDS, Humboldt Stake	1,120	1,740	
American Land Realty (210 lots)	640		
Security Bank of Nevada (30 lots)	640	640	
Other Private Lands	7,901		
TOTAL	58,720		

[1] These figures represent acreages within the plan boundary after the land exchange is completed.

[2] This is the entire acreage of private land that was purchased for the reservoir and state recreation area.

ALTERNATIVE I - PREFERRED PLAN

PLAN PROPOSAL.

Public Open Space. All of the lands shown on the land use plan map for Alternative I in this category are lands managed by the BLM. The density factor for these lands is zero.

State Recreation Area. The lands shown on the land use plan map for Alternative I in this category are lands that are owned by the State of Nevada or leased by the State from the BLM for recreational purposes with the intent of a patent being issued. This area will be managed by the Division of State Parks as the South Fork State Recreation Area. The density factor for these lands is zero.

Proposed Land Exchange. The lands shown on the land use plan map for Alternative I in this category are the lands involved in the proposed exchange of BLM lands for private lands. For purposes of this plan, ownership of those lands is considered to be the same as it would be if the land exchange was finalized. The density factor is addressed in the applicable land use designations.

Medium Density Residential. All of the lands shown on the land use plan map for Alternative I in this category are the existing lots that are less than ten acres in size. The density factor for these lands is proposed as two acres per dwelling unit.

Low Density Residential. Lands shown on the land use plan map for Alternative I in this category are the remaining private lands within the plan area that include parcels 10 to 40 acres in size as well as large parcels of undeveloped land, with the exception of those lands designated as Limited Residential. The density factor for the lands designated as Low Density Residential is proposed as 40 acres per dwelling unit.

Limited Residential. Lands shown on the land use plan map for Alternative I in this category are lands within Hydrographic Subarea B that have been subdivided beyond the estimated amount of available water resources. The density factor for these lands is proposed as 160 acres per dwelling unit.

Commercial Recreation. Lands along the Jiggs Highway in the vicinity of the new access road to the state recreation area are designated on the land use plan map for Alternative I as Commercial Recreation. It is proposed that commercial uses in this area be recreation-oriented uses that will be compatible with the state recreation area and available resources as well as being conducive to the rural characteristics and natural features of the area.

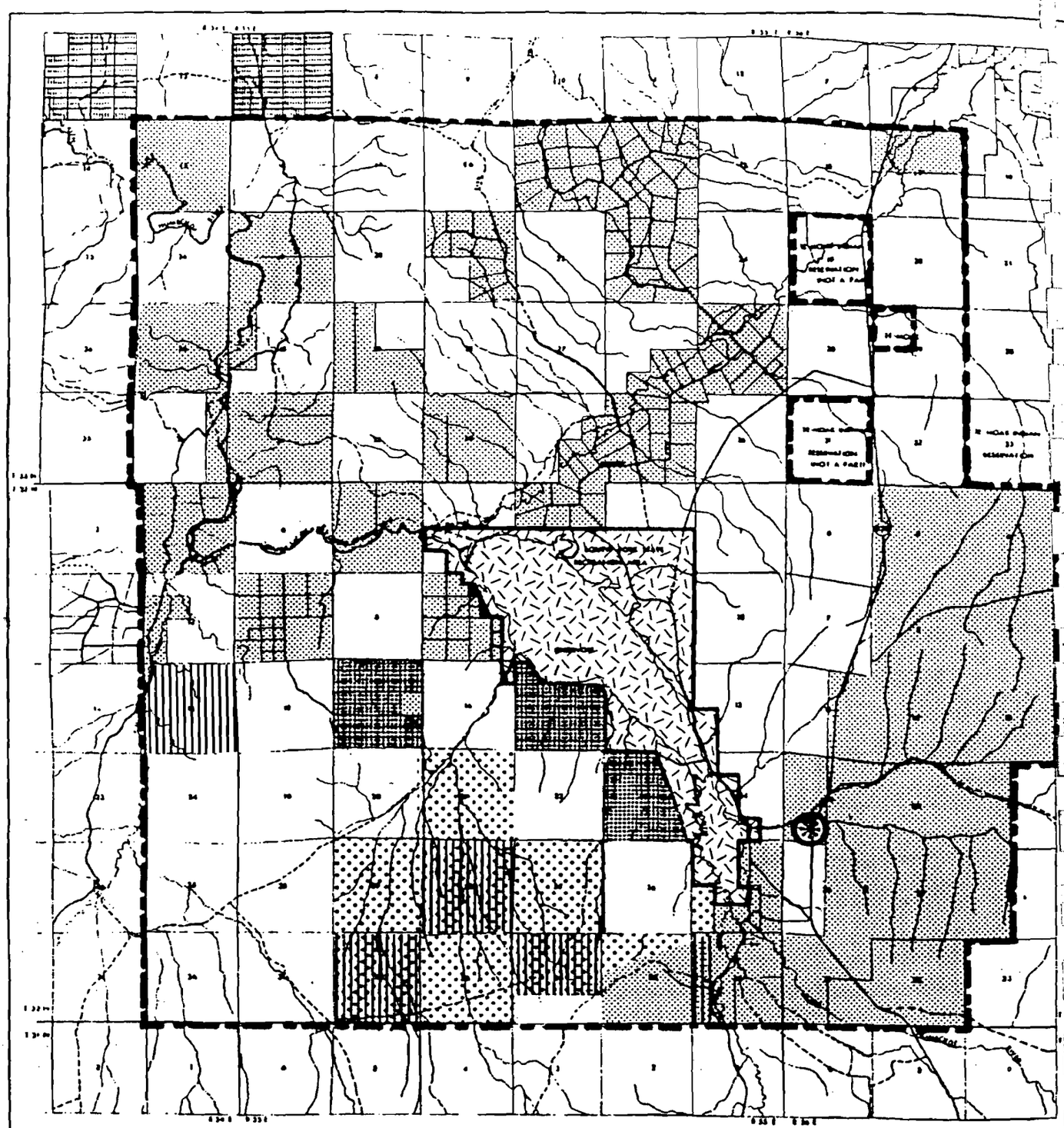
Neighborhood Commercial. It is the intent of this plan that areas be designated as Neighborhood Commercial only at such time as there is adequate residential development to support such uses. The exact location of lands within this designation should be determined at that time; therefore, no Neighborhood Commercial designation is shown on the land use plan map for Alternative I.

Population Potential. The maximum population potential within the South Fork plan area would be 3,130 if all of the private land is developed in accordance with the land use designations as shown on the land use plan map for Alternative I.

According to available information regarding water resources, it is estimated that there is sufficient amount of water to support a potential population of 2,900. This takes into consideration the existing lots that have been developed beyond the estimated amount of available water within Hydrographic Subarea B. Table XIII reflects information concerning population potential for Alternative I.

TABLE XIII
POPULATION POTENTIAL
ALTERNATIVE I - PREFERRED PLAN

		DWELLING UNITS (DU)				POPULATION			
DESIGNATION	ACRES	ACRES PER DU	100% BUILDOUT	WATER RESOURCES	EXISTING BUILDOUT	PERSONS PER DU	100% BUILDOUT	WATER RESOURCES	EXISTING BUILDOUT
Public	31,474	0	0	0	0	0	0	0	0
Medium Density Residential	1,457	2	616	616	5	2.67	1,644	1,644	13
Low Density Residential	21,278	40	531	507	33	2.67	1,417	1,354	87
Limited Residential	4,240	160	30	0	0	2.67	80	0	0
Commercial Recreation	40	0	0	1	0	0	0	2	0
Right of Way (Estimated)	231	0	0	0	0	0	0	0	0
TOTALS	58,720	-	1,177	1,124	38	-	3,141	3,000	100



LEGEND

- Public Open Space (BLM)
- State Recreation Area
- Proposed Land Exchange (BLM/Private)
- Medium Density Residential (1 DU/2 Acres)
- Low Density Residential (1 DU/40 Acres)
- Limited Residential (1 DU/160 Acres)
- Commercial Recreation

SOUTH FORK AREA PLAN

ELKO COUNTY PLANNING COMMISSION

• LAND USE PLAN •

ALTERNATIVE I - PREFERRED

N

1" = 8000'

Prepared by the State Land Use Planning Agency

PLAN BOUNDARY

LAND USE PLAN

ALTERNATIVE II - VERY LOW DENSITY

PLAN PROPOSAL

Public Open Space. All of the lands shown on the land use plan map for Alternative II in this category are lands managed by the BLM. The density factor for these lands is zero.

State Recreation Area. The lands shown on the land use plan map for Alternative II in this category are lands that are owned by the State of Nevada or leased by the State from the BLM for recreational purposes with the intent of a patent being issued. This area will be managed by the Division of State Parks as the South Fork State Recreation Area. The density factor for these lands is zero.

Proposed Land Exchange. The lands shown on the land use plan map for Alternative II in this category are the lands involved in the proposed exchange of BLM lands for private lands. For purposes of this plan, ownership of those lands is considered to be the same as it would be if the land exchange was finalized. The density factor is addressed in the applicable land use designations.

Medium Density Residential. All of the lands shown on the land use plan map for Alternative II in this category are the existing lots that are less than ten acres in size. The density factor for these lands is proposed as two acres per dwelling unit.

Low Density Residential. Lands shown on the land use plan map for Alternative II in this category are lands that have been subdivided into parcels of 10 to 40 acres in size. The density factor for these lands is proposed as 40 acres per dwelling unit.

Limited Residential. Lands shown on the land use plan map for Alternative II in this category are undeveloped large parcels of private lands. The density factor for these lands is proposed as 160 acres per dwelling unit.

Commercial Recreation. Lands along the Jiggs Highway in the vicinity of the new access road to the state recreation area are designated on the land use plan map for Alternative II as Commercial Recreation. It is proposed that commercial uses in this area be recreation-oriented uses that will be compatible with the state recreation area and available resources as well as being conducive to the rural characteristics and natural features of the area.

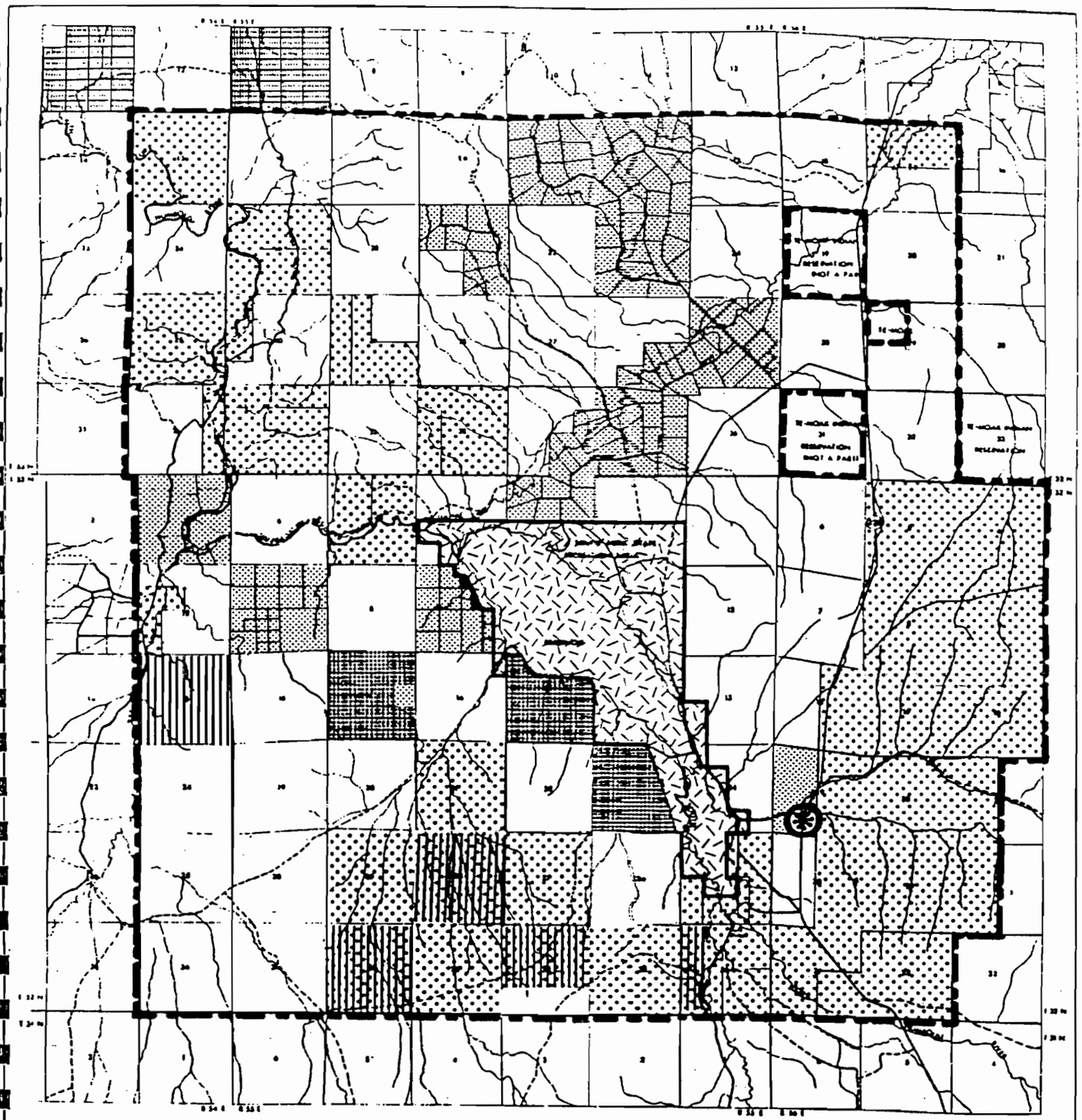
Neighborhood Commercial. It is the intent of this plan that areas be designated as Neighborhood Commercial only at such time as there is adequate residential development to support such uses. The exact location of lands within this designation should be determined at that time; therefore, no Neighborhood Commercial designation is shown on the land use plan map for Alternative II.

Population Potential. The maximum population potential within the South Fork plan would be 2,380 if all of the private land is developed in accordance with the land use designations as shown on the land use plan map for Alternative II.

According to available information regarding water resources, it is estimated that there is a sufficient amount of water to support a potential population of 2,900. This takes into consideration the existing lots that have been developed beyond the estimated amount of available water within Hydrographic Subarea B. Table XIV reflects information concerning population potential for Alternative II.

TABLE XIV
POPULATION POTENTIAL
ALTERNATIVE II - VERY LOW DENSITY

		DWELLING UNITS (DU)				POPULATION			
DESIGNATION	ACRES	ACRES PER DU	100% BUILDOUT	WATER RESOURCES	EXISTING BUILDOUT	PERSONS PER DU	100% BUILDOUT	WATER RESOURCES	EXISTING BUILDOUT
Public	31,474	0	0	0	0	0	0	0	0
Medium Density Residential	1,457	2	616	616	5	2.67	1,644	1,644	13
Low Density Residential	6,286	40	157	125	33	2.67	418	334	82
Limited Residential	19,232	160	119	333	0	2.67	317	890	5
Commercial Recreation	40	0	0	1	0	0	0	2	0
Right of Way (Estimated)	231	0	0	0	0	0	0	0	0
TOTALS	58,720	-	892	1,075	38	-	2,379	2,870	100



LEGEND

- Public Open Space (BLM)
- State Recreation Area
- Proposed Land Exchange (BLM/Private)
- Medium Density Residential (1 DU/2 Acres)
- Low Density Residential (1 DU/40 Acres)
- Limited Residential (1 DU/160 Acres)
- Commercial Recreation

SOUTH FORK AREA PLAN

ELKO COUNTY PLANNING COMMISSION

ALTERNATIVE II - VERY LOW DENSITY

• LAND USE PLAN •

N

1" = 8000'

Prepared by the State Land Use Planning Agency

PLAN BOUNDARY

ALTERNATIVE III - LOW DENSITY

PLAN PROPOSAL

Public Open Space. All of the lands shown on the land use plan map for Alternative III in this category are lands managed by the BLM. The density factor for these lands is zero.

State Recreation Area. The lands shown on the land use plan map for Alternative III in this category are lands that are owned by the State of Nevada or leased by the State from the BLM for recreational purposes with the intent of a patent being issued. This area will be managed by the Division of State Parks as the South Fork State Recreation Area. The density factor for these lands is zero.

Proposed Land Exchange. The lands shown on the land use plan map for Alternative III in this category are the lands involved in the proposed exchange of BLM lands for private lands. For purposes of this plan, ownership of those lands is considered to be the same as it would be if the land exchange was finalized. The density factor is addressed in the applicable land use designations.

Medium Density Residential. All of the lands shown on the land use plan map for Alternative III in this category are the existing lots that are less than ten acres in size. The density factor for these lands is proposed as two acres per dwelling unit.

Rural Residential. This category would be added by this alternative. There are two areas in this category as shown on the land use plan map for Alternative III: (1) Lands within the Western Hills Subdivision in the Tenmile Creek area that are adjacent to BLM land to the east and south of the subdivision. This would result in an increase in density within this 640-acre area of 48 dwelling units from the existing 26 if no further development occurred. This represents an increase in population of 128, which is nearly three times that of the existing density for that 640-acre area. This would also result in an increase in traffic, which in turn would affect air quality unless roads in that area are paved. Design for certain lots may also be difficult in some instances because of the existing lot design, and in some cases, it may not be possible to design lots that are in conformance with the zoning ordinance as far as access and minimum lot width. (2) The remaining 280 acres shown on the land use plan map for Alternative III as Rural Residential are located west of the Jiggs Highway in the vicinity of the future access to the state recreation area. The density factor for lands in this category is proposed as ten acres per dwelling unit.

Low Density Residential. Lands shown on the land use plan map for Alternative III in this category are the remaining lands that have been divided into parcels of 10 to 40 acres in size. The density factor for these lands is proposed as 40 acres per dwelling unit.

Limited Residential. Lands shown on the land use plan map for Alternative III in this category are other undeveloped private lands and lands within the plan area that will become private after the proposed land exchange with the BLM is completed. The density factor for these lands is proposed as 160 acres per dwelling unit.

Commercial Recreation. Lands along the Jiggs Highway in the vicinity of the new access road to the state recreation area are designated on the land use plan map for Alternative III as Commercial Recreation. It is proposed that commercial uses in this area be recreation-oriented uses that will be compatible with the state recreation area and available resources as well as being conducive to the rural characteristics and natural features of the area.

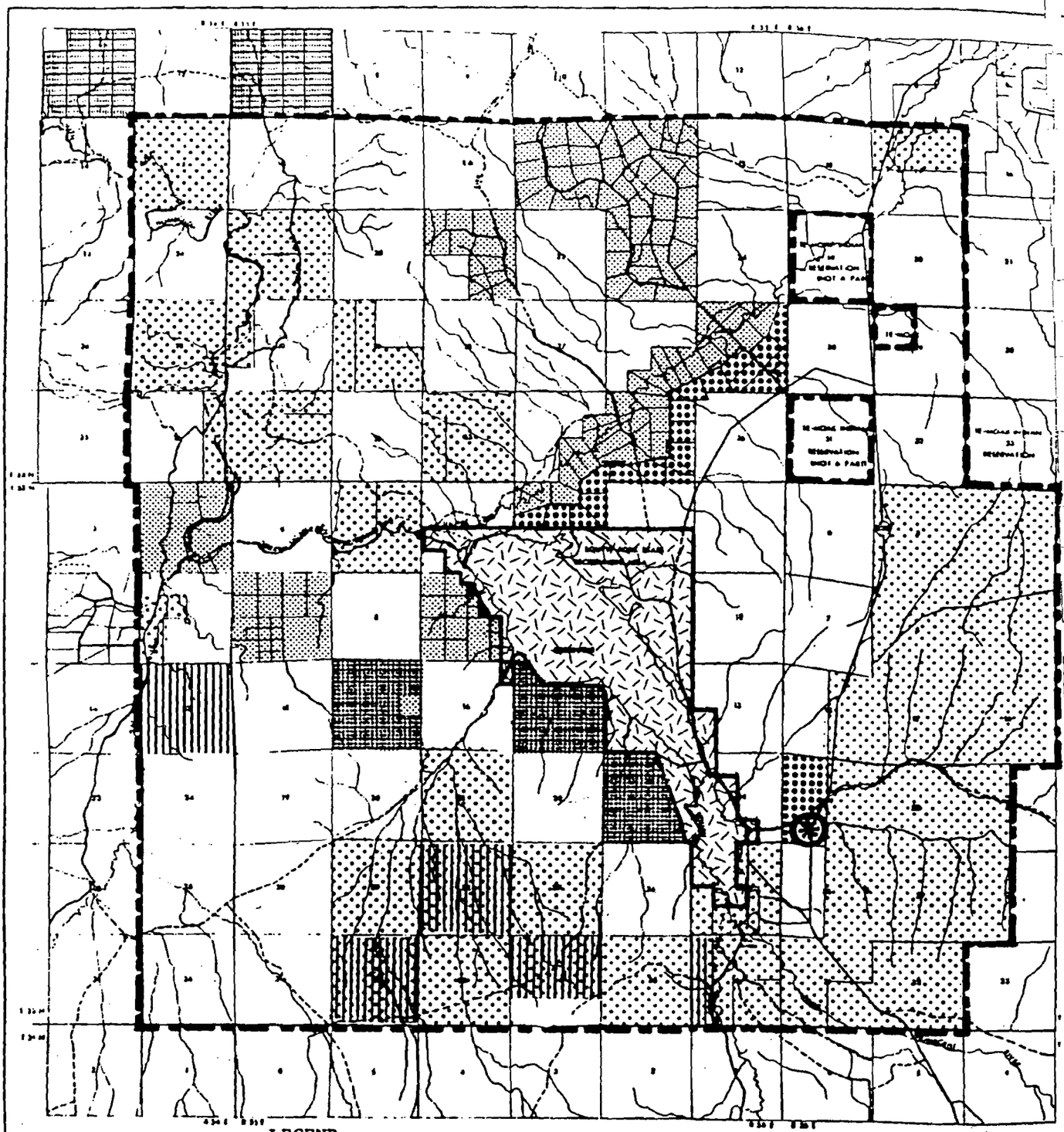
Neighborhood Commercial. It is the intent of this plan that areas be designated as Neighborhood Commercial only at such time as there is adequate residential development to support such uses. The exact location of lands within this designation should be determined at that time; therefore, no Neighborhood Commercial designation is shown on the land use plan map for Alternative III.

Population Potential. The maximum population potential within the South Fork plan area would be 2,570 if all of the private lands are developed in accordance with the land use designations as shown on the land use plan map for Alternative III.

According to available information regarding water resources, it is estimated that there is a sufficient amount of water to support a potential population of 2,900. This takes into consideration the existing lots that have been developed beyond the estimated amount of available water within Hydrographic Subarea B. Table XV reflects information concerning population potential for Alternative III.

TABLE XV
POPULATION POTENTIAL
ALTERNATIVE III - LOW DENSITY

		DWELLING UNITS (DU)				POPULATION			
DESIGNATION	ACRES	ACRES PER DU	100% BUILDOUT	WATER RESOURCES	EXISTING BUILDOUT	PERSONS PER DU	100% BUILDOUT	WATER RESOURCES	EXISTING BUILDOUT
Public	31,474	0	0	0	0	0	0	0	0
Medium Density Residential	1,457	2	616	616	6	2.67	1,644	1,644	13
Rural Residential	920	10	103	33	8	2.67	275	88	8
Low Density Residential	5,366	40	126	92	23	2.67	336	247	74
Limited Residential	19,232	160	119	333	2	2.67	317	889	5
Commercial Recreation	40	0	0	1	0	0	0	2	0
Right of Way (Estimated)	231	0	0	0	0	0	0	0	0
TOTALS	58,720	-	964	1,075	38	-	2,572	2,870	100



LEGEND

- Public Open Space (BLM)
- State Recreation Area
- Proposed Land Exchange (BLM/Private)
- Medium Density Residential (1 DU/2 Acres)
- Rural Residential (1 DU/10 Acres)
- Low Density Residential (1 DU/40 Acres)
- Limited Residential (1 DU/160 Acres)
- Commercial Recreation

SOUTH FORK AREA PLAN

ELKO COUNTY PLANNING COMMISSION

ALTERNATIVE III - LOW DENSITY

• LAND USE PLAN •

1" = 8000'

Prepared by the State Land Use Planning Agency

PLAN BOUNDARY

ALTERNATIVE IV - MEDIUM DENSITY

PLAN PROPOSAL

Public Open Space. All of the lands shown on the land use plan map for Alternative IV in this category are lands managed by the BLM. The density factor for these lands is zero.

State Recreation Area. The lands shown on the land use plan map for Alternative IV in this category are lands that are owned by the State of Nevada or leased by the State from BLM for recreational purposes with the intent of a patent being issued. This area will be managed by the Division of State Parks as the South Fork State Recreation Area. The density factor for these lands is zero.

Proposed Land Exchange. The lands shown on the land use plan map for Alternative IV in this category are the lands involved in the proposed exchange of BLM lands for private lands. For purposes of this plan, ownership of those lands is considered to be the same as it would be if the land exchange was finalized. The density factor is addressed in the applicable land use designations.

Medium Density Residential. All of the lands shown on the land use plan map for Alternative IV in this category are the existing lots that are less than ten acres in size. The density factor for these lands is proposed as two acres per dwelling unit.

Rural Residential. This category would be added by this alternative. There are two areas in this category as shown on the land use plan map for Alternative IV: (1) Lands within the Western Hills Subdivision in the Tenmile Creek area that are adjacent to BLM land to the east and south of the subdivision. This would result in an increase in density within this 640-acre area of 48 dwelling units from the existing 26 if no further development occurred. This represents an increase in population of 128, which is nearly three times that of the existing density of that 640-acre area. This would also result in an increase in traffic, which in turn would affect air quality unless roads in that area are paved. Design for certain lots may also be difficult in some instances because of the existing lot design, and in some cases, it may be possible to design lots that are in conformance with the zoning ordinance as far as access and minimum lot width. (2) The remaining 280 acres shown on the land use plan map for Alternative IV as Rural Residential are located west of the Jiggs Highway in the vicinity of the future access to the state recreation area. The density factor for lands in this category is proposed as ten acres per dwelling unit.

Low Density Residential. Lands shown on the land use plan map for Alternative IV in this category are the remaining private lands within the plan area that include parcels 10 to 40 acres in size as well as large parcels of undeveloped land, with two exceptions: (1) Those lands designated as Rural

Residential, and (2) Those lands designated as Limited Residential. The density factor for lands designated as Low Density Residential is proposed as 40 acres per dwelling unit.

Limited Residential. Lands shown on the land use plan map for Alternative IV in this category are large parcels of undeveloped lands within Hydrographic Subarea B (Figure 9). Subarea B includes other lands that have been subdivided beyond the estimated amount of available water resources for that area. The density factor for these lands is proposed as 160 acres per dwelling unit.

Commercial Recreation. Lands along the Jiggs Highway in the vicinity of the new access road to the state recreation area are designated on the land use plan map for Alternative IV as Commercial Recreation. It is proposed that commercial uses in this area be recreation-oriented uses that will be compatible with the state recreation area and available resources as well as being conducive to the rural characteristics and natural features of the area.

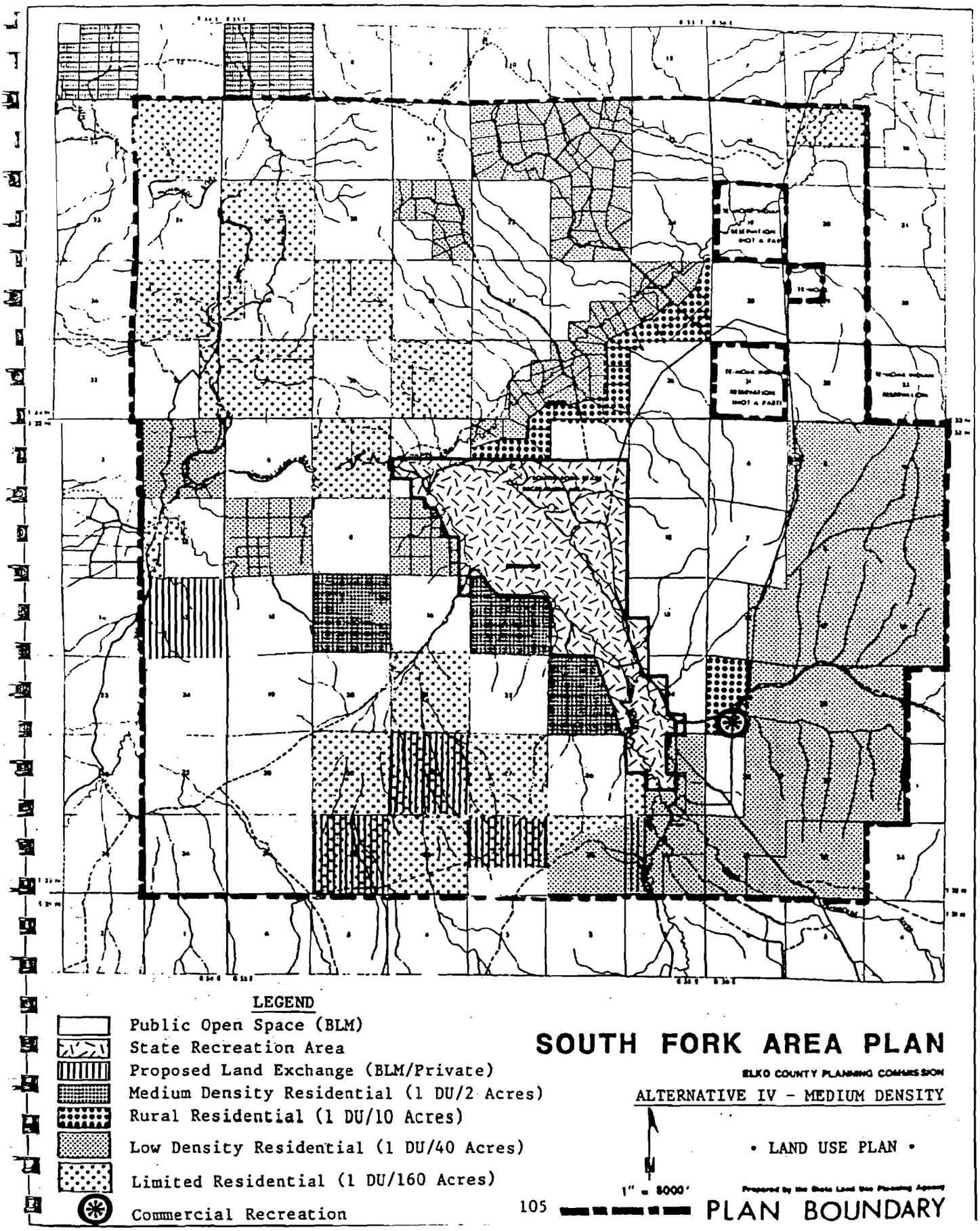
Neighborhood Commercial. It is the intent of the this plan that areas be designated as Neighborhood Commercial only at such time as there is adequate residential development to support such uses. The exact location of lands within this designation should be determined at that time; therefore, no Neighborhood Commercial designation is shown on the land use plan map for Alternative IV.

Population Potential. The maximum population potential within the South Fork plan area would be 3,347 if all of the private land is developed in accordance with the land use designations as shown on the land use plan map for Alternative IV.

According to available information regarding water resources, it is estimated that there is sufficient water to support a potential population of 2,900. This takes into consideration the existing lots that have been developed beyond the estimated amount of available water within Hydrographic Subarea B. Table XVI reflects information concerning population potential for Alternative IV.

TABLE XVI
POPULATION POTENTIAL
ALTERNATIVE IV - MEDIUM DENSITY

		DWELLING UNITS (DU)				POPULATION			
DESIGNATION	ACRES	ACRES PER DU	100% BUILDOUT	WATER RESOURCES	EXISTING BUILDOUT	PERSONS PER DU	100% BUILDOUT	WATER RESOURCES	EXISTING BUILDOUT
Public	31,474	0	0	0	0	0	0	0	0
Medium Density Residential	1,457	2	616	616	5	2.67	1,644	1,644	13
Rural Residential	920	10	103	33	8	2.67	275	88	8
Low Density Residential	20,358	40	509	425	23	2.67	1,359	1,136	79
Limited Residential	4,240	160	26	0	2	2.67	69	0	0
Commercial Recreation	40	0	0	1	0	0	0	2	0
Right of Way (Estimated)	231	0	0	0	0	0	0	0	0
TOTALS	58,720	-	1,254	1,075	38	-	3,347	2,870	100


LEGEND
Public Open Space (BLM)
State Recreation Area
Proposed Land Exchange (BLM/Private)
Medium Density Residential (1 DU/2 Acres)
Rural Residential (1 DU/10 Acres)
Low Density Residential (1 DU/40 Acres)
Limited Residential (1 DU/160 Acres)
Commercial Recreation
SOUTH FORK AREA PLAN
ELKO COUNTY PLANNING COMMISSION
ALTERNATIVE IV - MEDIUM DENSITY
• LAND USE PLAN •
1" = 8000'
PLAN BOUNDARY

ALTERNATIVE V - HIGHEST DENSITY
(DENSITY OF EXISTING ZONING)

PLAN PROPOSAL

Public Open Space. All of the lands shown on the land use plan map for Alternative V in this category are lands managed by the BLM. The density factor for these lands is zero.

State Recreation Area. The lands shown on the land use plan map for Alternative V in this category are lands that are owned by the State of Nevada or leased by the State from the BLM for recreational purposes with the intent of a patent being issued. This area will be managed by the Division of State Parks as the South Fork State Recreation Area. The density factor for these lands is zero.

Proposed Land Exchange. The lands shown on the land use plan map for Alternative V in this category are lands involved in the proposed exchange of BLM lands for private lands. For purposes of this plan, ownership of those lands is considered to be the same as it would be if the land exchange was finalized. The density factor is addressed in the applicable land use designations.

Medium Density Residential. All of the lands shown on the land use plan map for Alternative V in this category are the existing lots that are less than ten acres in size. The density factor for these lands is one dwelling unit per acre, which is also the density allowed by existing zoning.

Low Density Residential. Lands shown on the land use plan map for Alternative V in this category are the existing parcels that are 10 to 40 acres in size as well as large parcels of undeveloped land. This includes lands that will become privately owned after the proposed land exchange with the BLM is completed. The density factor for these lands is ten acres per dwelling unit, which is also the density allowed by existing zoning.

Commercial Recreation. Lands along the Jiggs Highway in the vicinity of the new access road to the state recreation area are designated on the land use plan map for Alternative V as Commercial Recreation. It is proposed that commercial uses in this area be recreation-oriented uses that will be compatible with the state recreation area and available resources as well as being conducive to the rural characteristics and natural features of the area.

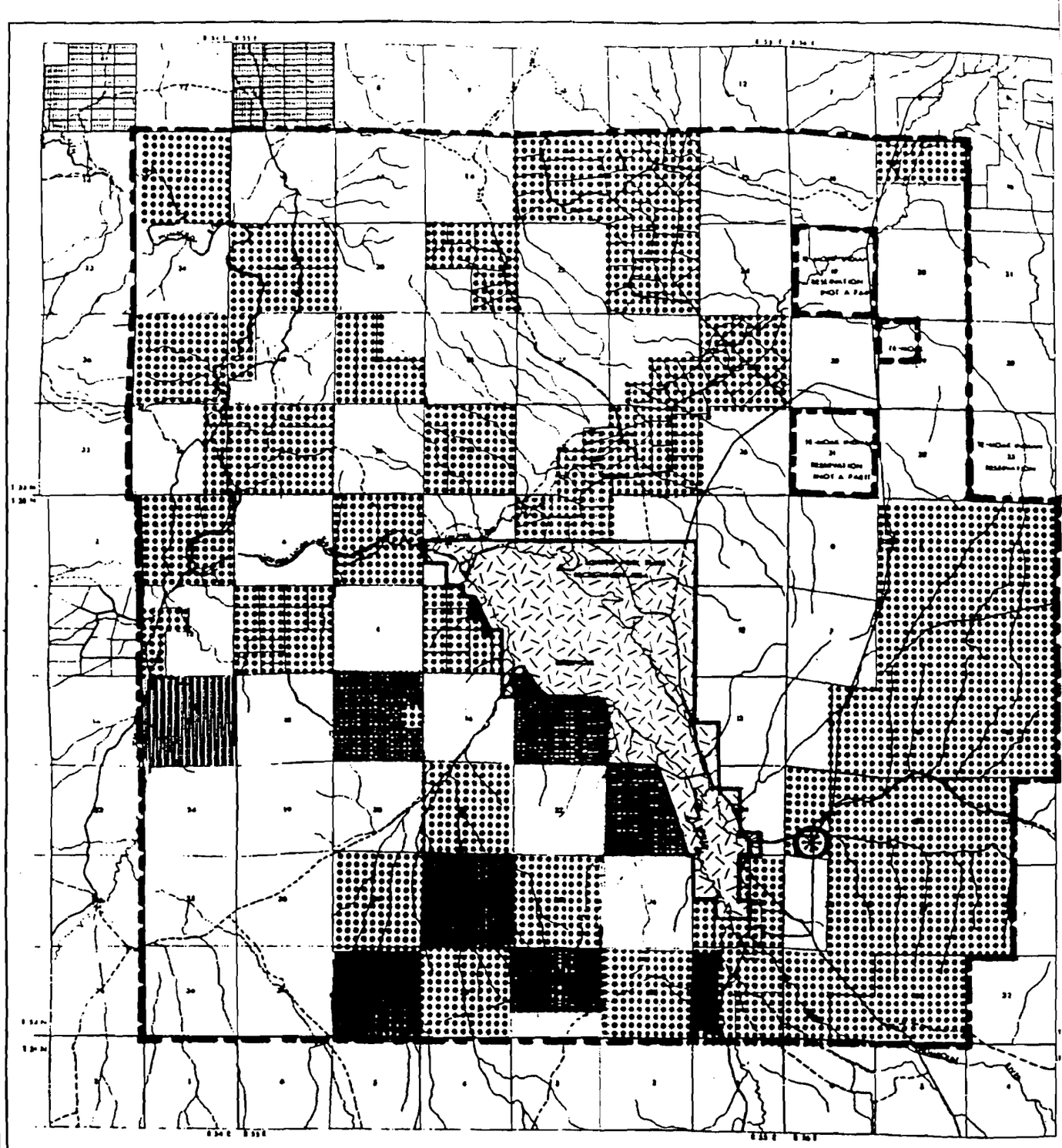
Neighborhood Commercial. It is the intent of this plan that areas be designated as Neighborhood Commercial only at such time as there is adequate residential development to support such uses. The exact location of lands within this designation should be determined at that time; therefore, no Neighborhood Commercial designation is shown on the land use plan map for Alternative V.

Population Potential. The maximum population potential within the South Fork plan area would be 10,190 if no changes are made in the density factors that currently exist, and if all of the private land as well as those lands proposed for exchange from public to private ownership are developed in accordance with the land use designations shown on the land use plan map for Alternative V.

It is estimated that there is a sufficient amount of water to support a population potential of 2,900. This takes into consideration the existing lots that have been developed beyond the estimated amount of available water within Hydrographic Subarea B. Table XVII reflects information concerning population for Alternative V.

TABLE XVII
POPULATION POTENTIAL
ALTERNATIVE V - HIGHEST DENSITY (EXISTING ZONING)

		DWELLING UNITS (DU)				POPULATION			
DESIGNATION	ACRES	ACRES PER DU	100% BUILDOUT	WATER RESOURCES	EXISTING BUILDOUT	PERSONS PER DU	100% BUILDOUT	WATER RESOURCES	EXISTING BUILDOUT
Public	31,474	0	0	0	0	0	0	0	0
Medium Density Residential	1,457	1	1,304	616	5	2.67	3,481	1,644	13
Rural Residential	25,518	10	2,513	458	33	2.67	6,710	1,224	87
Commercial Recreation	40	0	0	1	0	0	0	2	0
Right of Way (Estimated)	231	0	0	0	0	0	0	0	0
TOTALS	58,720	-	3,817	1,075	38	-	10,191	2,870	100



LEGEND

- Public Open Space (BLM)
- State Recreation Area
- Proposed Land Exchange (BLM/Private)
- Medium Density Residential (1 DU/1 Acre)
- Rural Residential (1 DU/10 Acres)
- Commercial Recreation

SOUTH FORK AREA PLAN

ELKO COUNTY PLANNING COMMISSION

ALTERNATIVE V - HIGHEST DENSITY

(Density of Existing Zoning)

• LAND USE PLAN •

Prepared by the State Land Use Planning Agency

1" = 8000'

PLAN BOUNDARY

TABLE XVIII

SUMMARY OF ALTERNATIVES - POPULATION POTENTIAL

	ALTERNATIVES				
Land Use Designations	I Preferred	II Very Low	III Low	IV Medium	V Highest
Medium Density Residential	1,644	1,644	1,644	1,644	3,481
Rural Residential	-	-	275	275	6,710
Low Density Residential	1,417	418	336	1,359	-
Limited Residential	69	317	317	69	-
TOTAL DENSITY (2.67/DU)	3,130	2,380	2,570	3,347	10,190
TOTAL DWELLING UNITS	1,173	892	964	1,254	3,817

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