

DRAFT Action plan for the management of cougar in New Mexico 1997-2004.

This plan describes specific actions to be taken by New Mexico Department of Game and Fish (NMDGF) to meet the goal and objective expressed in the Long Range Plan for the Management of Cougar in New Mexico, 1997-2004. The goal of the long range plan is that New Mexico's cougar management will satisfy people's recreational, ecological, economic interests, and successfully resolve cougar-related issues. The long range plan identifies 16 issues that affect public satisfaction with cougar management in New Mexico, and 29 strategies to address those issues. This plan contains a series of actions designed to carry out each strategy and identifies cougar management zones with different harvest objectives. This document is a transitional stage in development of the Operational Plan for the Management of Cougar in New Mexico, which will be presented to the State Game Commission for approval in late 1997., 1-14. 1997. Santa Fe, New Mexico, New Mexico Department of Game and Fish.

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**Action Plan for the Management of Cougar
in New Mexico**

1997-2004

**New Mexico Department of Game and Fish
Santa Fe, New Mexico
July 1997**



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Action Plan for the Management of Cougar in New Mexico

1997-2004

INTRODUCTION

This plan describes specific actions to be taken by New Mexico Department of Game and Fish (NMDGF) to meet the goal and objective expressed in the *Long Range Plan for the Management of Cougar in New Mexico, 1997-2004*. The goal of the long range plan is that New Mexico's cougar management will satisfy people's recreational, ecological and economic interests, and successfully resolve cougar-related issues. The long range plan identifies 16 issues that affect public satisfaction with cougar management in New Mexico, and 29 strategies to address those issues. This action plan contains a series of actions designed to carry out each strategy. This document is a transitional stage in development of the *Operational Plan for the Management of Cougar in New Mexico*, which will be presented to the State Game Commission for approval in late 1997. The operational plan will describe the personnel and budget required for performing each of the actions listed in this plan.

The projects listed in this plan address the major issues that were identified through the public input process. The actions were developed from public comments regarding the proposed strategies, NMDGF personnel, and contracted cougar researchers. Actions were identified based on their feasibility and likelihood of success in carrying out the strategies in the long range plan. Some of the actions involve the establishment of hunting regulations, while others can be accomplished through NMDGF tasks and procedures.

The figures attached to the end of this document provide examples of how cougar management in New Mexico could be structured. Each map includes the components believed to be necessary to meet the recreational, ecological, and economic interests of the citizens of New Mexico. None of the maps represent a preferred alternative or indicate any preference for one management structure over another. The purpose of the maps is to provide a tool for obtaining public input regarding needs and desires for cougars within each local area. A determination of cougar population objectives for each management zone will be based upon public input from this plan and other available information.

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PROJECT 1. POPULATION MAINTENANCE PROJECT—Actions that address the establishment of management and harvest objectives for different zones across New Mexico.

1. Implement a zone management approach and designate appropriate areas for cougar management which will accommodate specific recreational, ecological, or economic interests (Strategy 1).

Action 1: Identify cougar management zones within New Mexico, which are combinations of game management units large enough to encompass distinct cougar populations, and are easily identified by the public.

Action 2: Establish management objectives for each zone based on public input, local needs and problems.

2. Harvest cougars at levels and sex ratios consistent with the desired objectives for each management zone (Strategy 2).

Action 1: Use the New Mexico State University Geography Department to refine the Gap Analysis map that calculates the amount of cougar habitat in New Mexico.

Action 2: Estimate cougar densities using the results of the 10-year study in the San Andres Mountains and other studies performed in the western United States.

Action 3: Estimate cougar populations within each zone, by multiplying the amount of cougar habitat and the estimated cougar density.

Action 4: Set harvest objectives based on the management objectives and population estimates for each zone (Figs. 1-6). Use data on cougar population growth rates from the San Andres Mountains study to establish the following guidelines:

Zone objective

Harvest objective for adult cougars

Stable cougar population

8% of males plus about 3% of females

Decreased cougar population

≥ 28% of total for both sexes

Increased cougar population

< 8% of males plus < 3% of females

Cougar population reservoir

No cougar harvest

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Action 5: Implement harvest quotas and a mechanism for administering quotas (e.g., 1-800 telephone number) for the 1998/99 cougar hunting season.

- 3. Allow the use of dogs in cougar hunting as a tool to facilitate hunters' ability to determine gender and take cougars in the desired sex ratios (Strategy 3).**

Action 1: Present information to sportsmen, guides, and others to explain the quota system, the benefits of protecting females, techniques for sexing cougars, and how harvesting males can result in a longer cougar hunting season.

- 4. Provide public information as to the rationale for cougar hunting strategies, including the use of dogs to protect females and sustain populations, the closure of some zones to cougar hunting, and the intended long-term recreational benefits (Strategies 4, 11, and 12).**

Action 1: Develop popular media articles and other information sources to describe the cougar management program, its components, and benefits to various interested publics.

- 5. Inform houndsmen how they might avoid offending public sensibilities regarding the use of dogs to take cougars (Strategy 5).**

Action 1: Provide information in the proclamation and other sources describing the types of dog-hunting practices that may offend some publics, and how public acceptance of hunting with dogs can be improved.

- 6. Maximize sport-hunting opportunity in zones with objectives to provide for recreational interests or to reduce cougar populations (Strategies 6 and 7).**

Action 1: Set harvest quotas equal to observed overall population growth rates (8% for males) in zones designated for sustained harvest and recreational opportunities.

Action 2: Set harvest quotas equal to or greater than the maximum observed population growth rates (28%) in zones with an objective of cougar control.

- 7. Limit cougar harvest rather than opportunity in zones where limited harvest is prescribed (Strategy 8).**

Action 1: Make an unlimited number of cougar licenses available through over-the-counter license sales.

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Action 2: Allow hunters to purchase a single, statewide license which enables them to hunt in any open zone (where the quota has not yet been reached).

Action 3: Implement a quota system which limits the total male and female harvest, but not the number of hunters, within a specified zone.

8. Select zones for cougar population reservoirs from areas where hunting opportunity is already limited, where ecological interests are primary, where potential conflicts with livestock are minimal, and where land uses are expected to remain stable and favorable to cougar populations (Strategies 9 and 13).

Action 1: Identify areas that are already closed to cougar hunting, and examine the potential for these areas to serve as cougar population reservoirs based on current land uses, land management status, habitat quality, and other factors.

Action 2: Determine the amount of cougar hunting opportunity currently provided in different areas through examination of historical harvest data.

Action 3: Examine cougar depredation records to identify areas where few depredation problems have occurred in the past.

Action 4: Select cougar population reservoirs from zones that currently provide little or no hunting opportunity, and have few cougar-related conflicts.

9. Respond to depredation problems in zones closed to cougar hunting (Strategy 10).

Action 1: Allow depredation management to occur in zones designated as cougar population reservoirs.

PROJECT 2. INFORMATION COLLECTION AND DISSEMINATION PROJECT-

Actions that address concerns for the amount of available knowledge of cougar populations, and the ability to use that knowledge to meet people's needs and desires.

1. Provide information about cougars and cougar habitat needs to land management agencies and others who may be affected by or interested in management decisions (Strategy 14).

Action 1: Contact land management agencies in New Mexico and identify existing needs and sources for cougar information.

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Action 2: Compile annual summaries of cougar harvest trends and other data.

Action 3: Provide information on cougar natural history, biology, and suggestions to reduce cougar-related conflicts to land managers and other affected publics.

2. Monitor the results of management actions and public concerns regarding these actions to inform future decision-making processes (Strategy 16).

Action 1: Monitor the impacts of management on cougar populations through track surveys in selected zones, age of harvested cougars, and/or other methods.

Action 2: Monitor levels of harvest and compare to past harvest data.

Action 3: Solicit public opinion to determine public satisfaction with cougar management actions.

Action 4: Assess the success of the quota system in achieving cougar management objectives after 5 years, and determine whether to continue the system and adjust quotas in specific zones.

3. Use the best available information to develop flexible management strategies that can change as new needs and information arise (Strategies 15 and 17).

Action 1: Continue public involvement in the cougar management process.

Action 2: Use public input to establish management objectives.

Action 3: Set harvest objectives to meet cougar population objectives.

Action 4: Adjust harvest levels, if necessary, to meet objectives for cougar management zones.

5. Set aside large zones with little or no cougar hunting to guard against management errors and uncertainties, and to provide a population reservoir to supply other management zones (Strategy 18).

Action 1: Investigate the connectivity of potential zones for cougar population reservoirs to other cougar management zones, and evaluate probability of success in supplying cougars to other zones through dispersal.

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Action 2: Guard against management uncertainties and information gaps by designating 2 zones of approximately 1,000 mi.² with no cougar sport-harvest.

6. Survey public opinion to determine public satisfaction with cougar management activities (Strategy 19).

Action 1: Conduct a public opinion survey by the year 2003 to determine the level of satisfaction with New Mexico's cougar management program.

PROJECT 3. RESPONSIVE MANAGEMENT PROJECT--Actions that address the concerns of some sportsmen that cougar predation may impact other wildlife species and livestock, and the current dissatisfaction with the management of cougar depredation.

1. Investigate possible correlations between cougars, deer, and bighorn sheep populations in areas of particular concern, and publish findings (Strategy 20).

Action 1: Monitor deer harvest data in areas of high and low cougar harvest.

Action 2: Use data from aerial surveys of deer and bighorn sheep or other sources to evaluate changes in population sizes, juvenile:adult ratios, and age structures in selected zones of high and low cougar harvest.

Action 3: Work with the deer management program to improve data quality through refinement of aerial surveys, and attempt to develop a deer density or catch per unit effort estimate in areas of concern over cougar predation.

Action 4: Evaluate cougar population survey techniques and monitor status of cougar populations through indices such as track surveys, harvest levels, time required to reach quotas, and age of harvested cougars.

Action 5: Review deer model simulation runs to compare the relative importance of precipitation changes and other factors to the impacts of predation on deer in areas of concern for low deer numbers.

Action 6: Consider selective cougar control for endangered species or for transplanted populations of wildlife that are significantly affected by cougars, and have undergone habitat and feasibility analyses suggesting that removal of selected cougars could reduce the negative impacts to those populations.

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Action 7: Incorporate the results of cougar and deer monitoring efforts into NMDGF deer-related publications and other information sources.

2. Anticipate and work to resolve potential conflicts with other programs before they occur (Strategy 21).

Action 1: Consider concerns and management activities for other species when determining zone management objectives.

Action 2: Provide information regarding cougar concerns and management activities to inform development of other species' management programs.

3. Emphasize the use of increased sport-hunting to reduce cougar populations and potentially remove depredating cougars in areas of chronic depredation problems (Strategies 22 and 25).

Action 1: Consider depredation concerns when developing cougar management zones

Action 2: Identify areas with depredation problems using historic and present records.

Action 3: Increase hunter harvest opportunities in depredation problem areas.

4. Provide public information explaining the need for lethal control of depredating cougars (Strategy 23).

Action 1: Include results of translocating adult cougars in NMDGF publications and popular media articles.

5. Work with agricultural interests to discover and encourage any non-lethal control alternatives that may exist (Strategy 24).

Action 1: Conduct a literature search to find livestock management practices that reduce vulnerability to cougar depredation.

Action 2: Contact other wildlife and land management agencies regarding the status of proposals for experimental livestock management to gain new insights in ways of avoiding cougar depredation.

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Action 3: Solicit information from landowners and depredation committees regarding the success or failure of livestock management practices in preventing cougar depredation.

Action 4: Encourage landowners and depredation committees to share information and implement livestock practices that are found to be successful in avoiding cougar depredation.

6. Where sport-hunting proves inadequate to control depredation, supplement with direct control techniques (Strategy 26).

Action 1: Allow current depredation management to continue when increased sport-hunting does not eliminate all depredation problems.

7. Reduce the need for preventive control by increasing sport-hunting opportunity and interest in Unit 30 (Strategy 27).

Action 1: Set an objective of cougar control and increased sport-harvest in Unit 30.

Action 2: Investigate the possibility of increasing the season length in Unit 30.

Action 3: Monitor cougar harvest and the frequency of cougar-related conflicts in Unit 30.

8. Provide public information pertaining to the frequency cougar depredation incidents and cougar-human conflicts, and how each can be reduced (Strategies 28 and 29).

Action 1: Determine the frequency and locations of depredation incidents.

Action 2: Obtain information from other states and cougar biologists describing ways to minimize the potential for cougar-human conflicts.

Action 3: Develop pamphlets, handouts, and other information sources with recommendations on how to reduce cougar conflicts with humans and livestock.

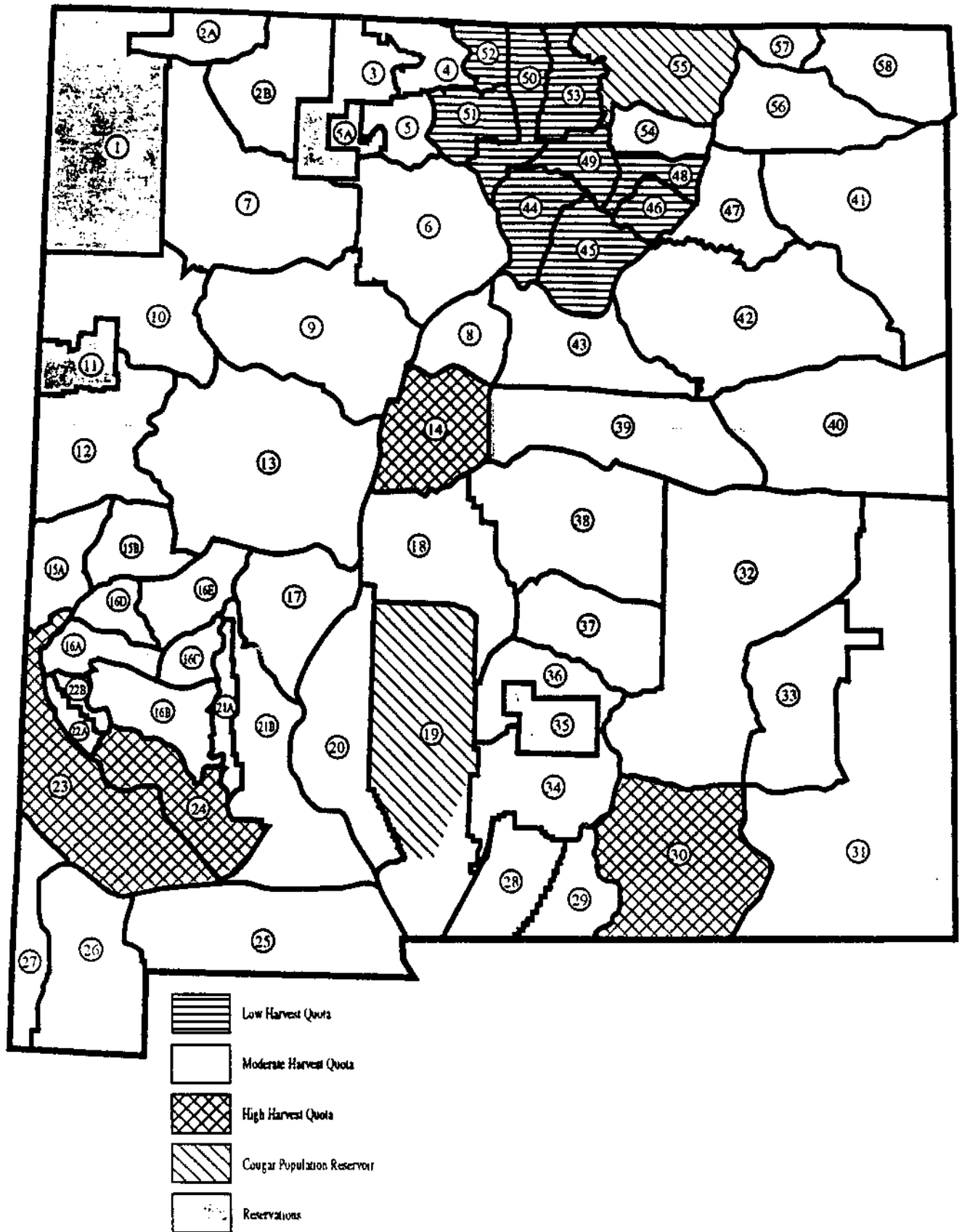


Figure 1. Examples of possible cougar management zones in New Mexico.

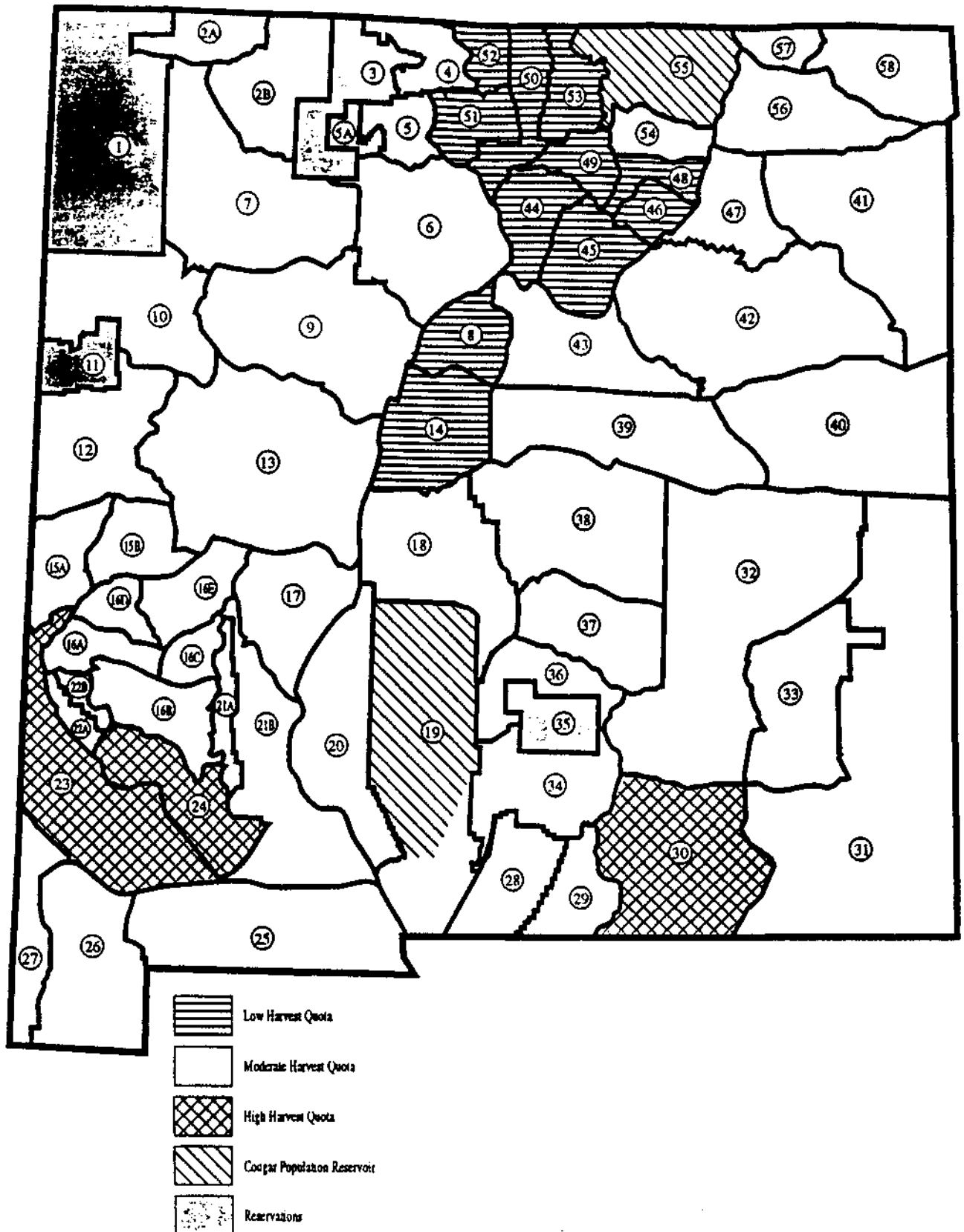


Figure 2. Examples of possible cougar management zones in New Mexico.

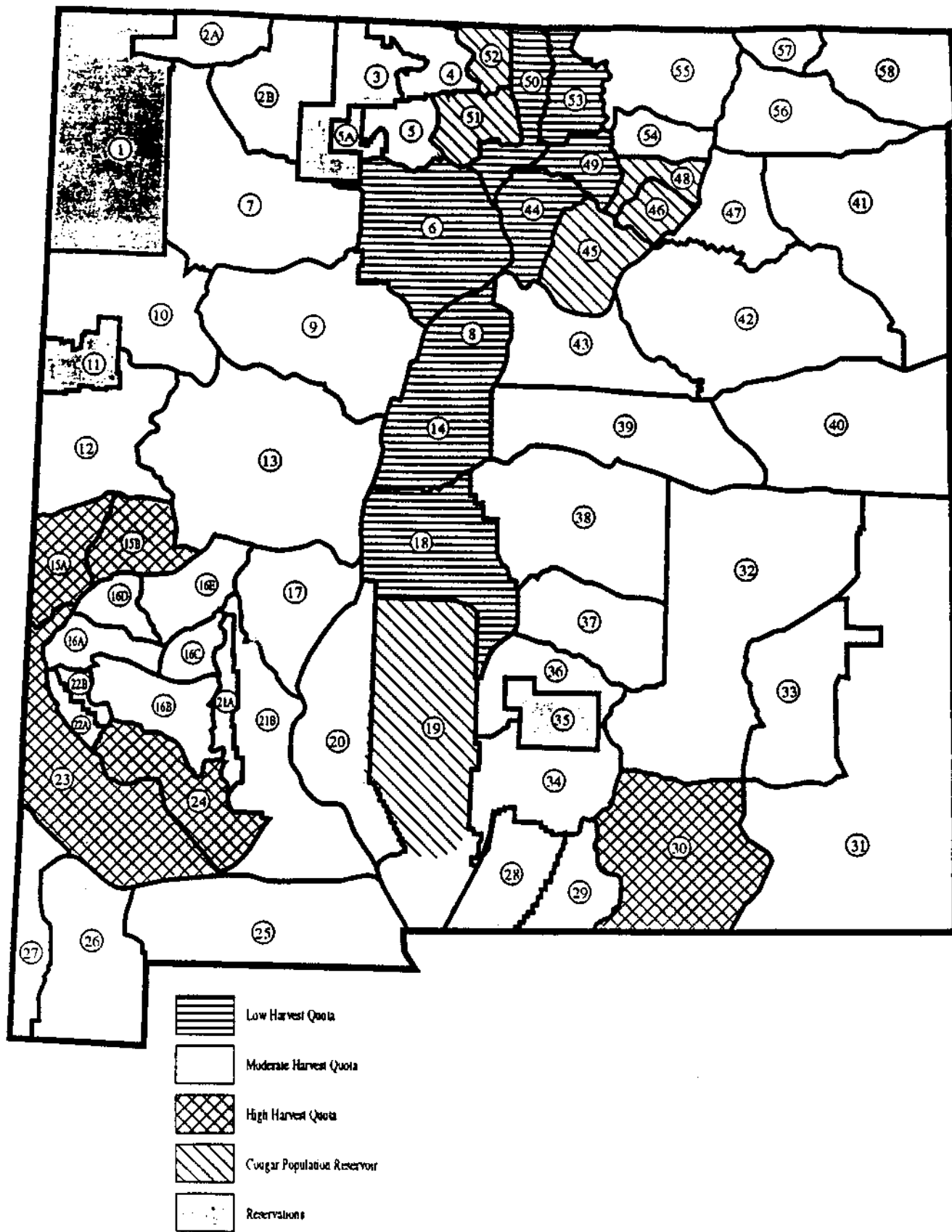


Figure 3. Examples of possible cougar management zones in New Mexico.

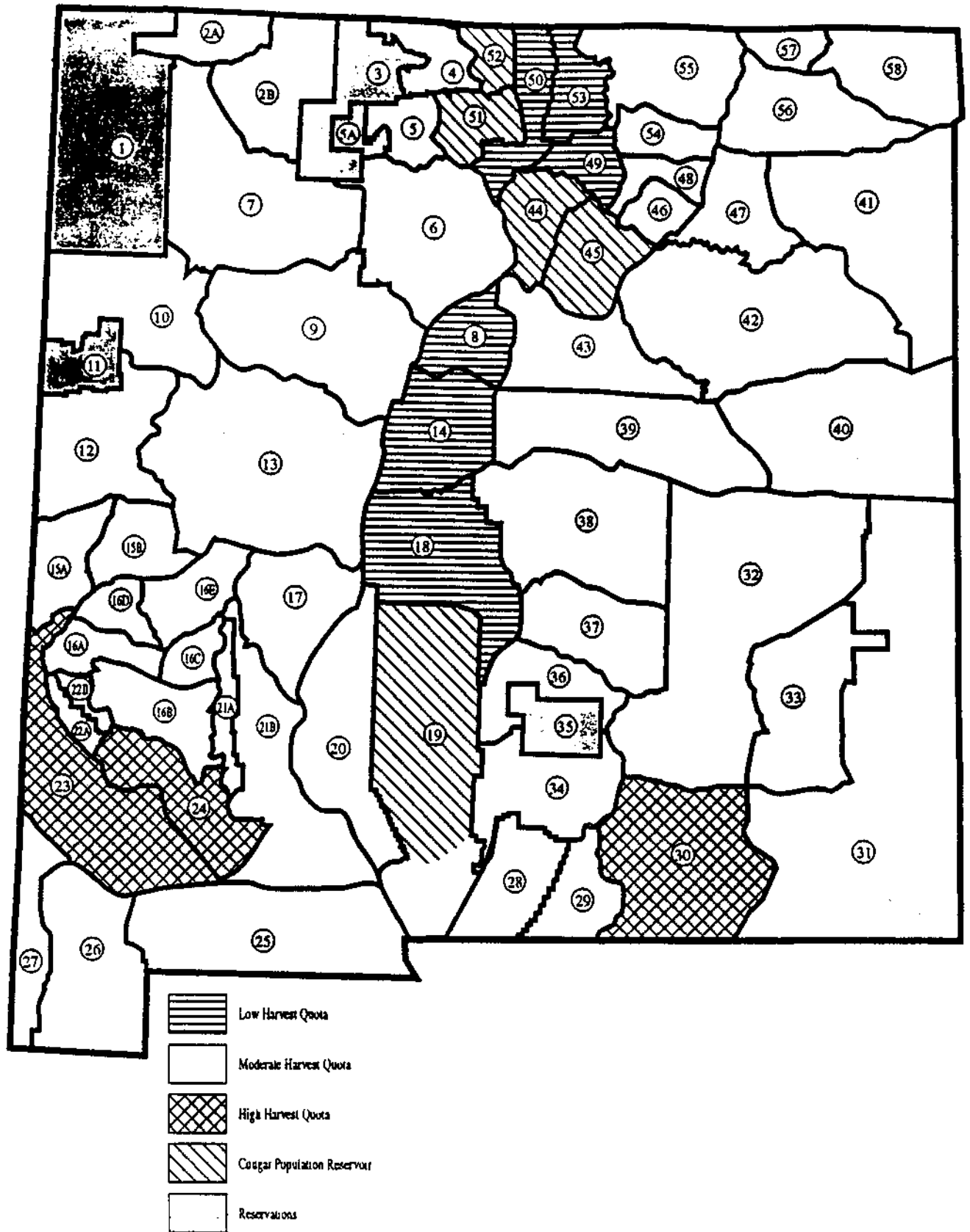


Figure 4. Examples of possible cougar management zones in New Mexico.

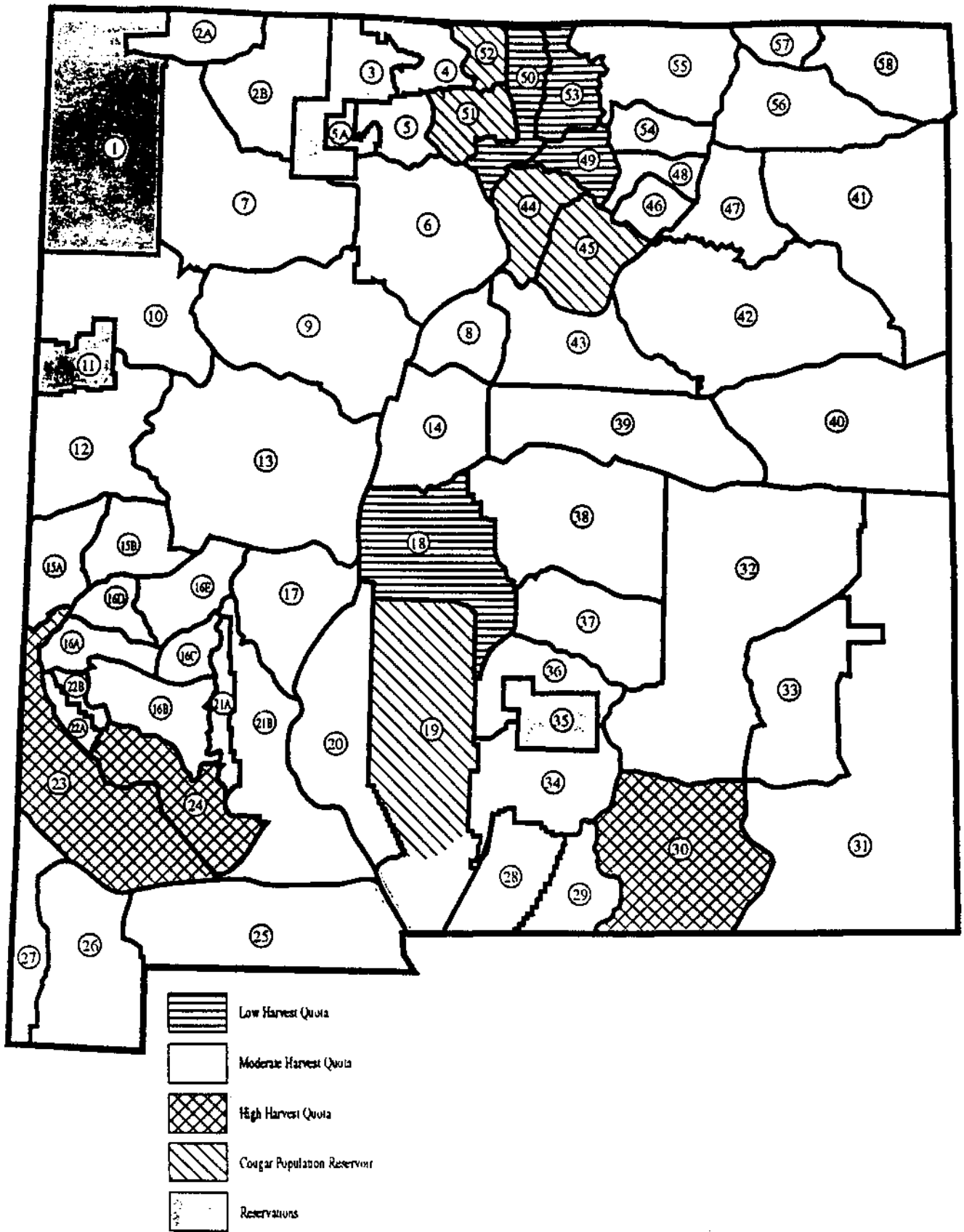


Figure 5. Examples of possible cougar management zones in New Mexico.

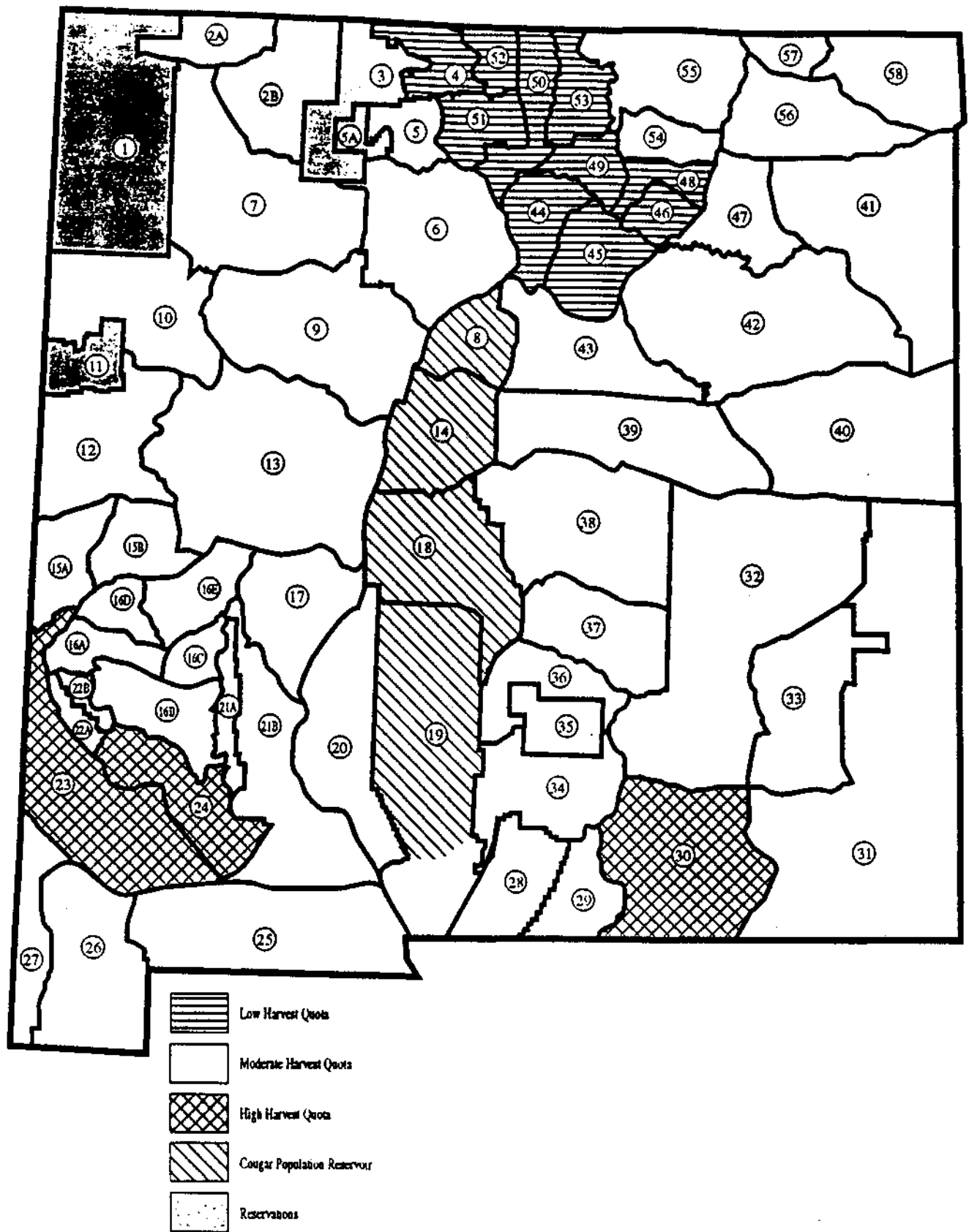


Figure 6. Examples of possible cougar management zones in New Mexico.