

RECLAMATION

Managing Water in the West

Heart Butte Reservoir Resource Management Plan



Mission Statements

The Department of the Interior's mission is to protect and provide access to our Nation's natural and cultural heritage and honor our trust responsibilities to tribes.

The Bureau of Reclamation's mission is to manage, develop, and protect water and related resources in an environmentally and economically sound manner in the interest of the American public

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HEART BUTTE RESERVOIR RESOURCE MANAGEMENT PLAN

PROJECT NARRATIVE

SECTION 1 INTRODUCTION AND OVERVIEW

1.1 INTRODUCTION

The Bureau of Reclamation is the federal agency responsible for administering lands and resources associated with Heart Butte Reservoir. The Bismarck Office of Reclamation's Dakotas Area Office (DKAO) is preparing a resource management plan (RMP) for the reservoir. The RMP documents current management practices and policies at Heart Butte. The RMP will help ensure that future management decisions are consistent with Reclamation's management objectives and authorized purposes as well as with growing public demand for recreation, water development, and environmental protection.

1.1.1 RESOURCE MANAGEMENT PLAN AUTHORITY

Title 28 of P.L. 102-575, Section 2805 (106 Statute 4690, Reclamation Recreation Management Act of October 30, 1992) provides Reclamation with authority to prepare RMPs. The act further provides that each RMP shall be consistent with applicable laws (including any applicable statute, regulation, or Executive order), shall be developed in consultation with appropriate heads of federal and non-federal departments or agencies, the authorized beneficiaries of any Reclamation project, and with appropriate public participation. Each RMP shall provide for the development, use, conservation, protection, enhancement, and management of resources of Reclamation lands in a manner that is compatible with the authorized purposes.

Reclamation's Recreation Management Policy (LND P04) defines Reclamation's overall responsibilities and establishes the basic principles for planning, development, management, and protection of public recreation resources on Reclamation lands and waters. One of the principles outlined in this policy is to: "Conduct necessary planning studies, research, assessment, and public involvement processes, in conjunction with managing partners where possible, to provide recreation facilities commensurate with public needs and Reclamation responsibilities and objectives."

The Federal Water Project Recreation Act of July 9, 1965 (P.L. 89-72) governs Reclamation's management and appropriations for all reservoirs within their jurisdiction, including Heart Butte Reservoir. Reclamation's authority for development of recreation facilities or wildlife habitat is limited by the provisions of P.L. 89-72. In summary, section 3 of the act states that in the absence of a non-federal managing agency, Reclamation may only provide minimum basic facilities.

Minimum basic facilities are those required for public health and safety to protect and preserve federal property and the public. These facilities include boat ramps, picnic tables, beach areas,

sanitation facilities (vault toilets), parking areas, etc. The key word is “basic” which requires good judgment be used and that it truly is necessary for the protection of the public’s health and safety and protect or preserve federal property and the public. For example, basic restroom facilities would be accessible vault toilets with accessible routes, but not flush toilets. Camping areas would be primitive in nature; i.e., no power or water provided to each campsite, but potable water could be made available within the camping areas at one or more locations. No cost share is required to construct minimum basic facilities, and may include lands administered by managing partners and concessionaires.

The intent of P.L. 89-72 is to encourage local agencies to assume management responsibilities for recreation areas on Reclamation lands that do not have a national significance. If no local interests assume management, then Reclamation is strictly limited to providing only minimum facilities for health and safety reasons.

1.2 PURPOSE

Reclamation’s mission has shifted from an agency whose responsibility was primarily one of constructing and developing water resource projects to a role of operation and maintenance of existing facilities with an increased emphasis on resources management. An assessment of this new role has identified the need for better and proper utilization of public resources under the jurisdiction of Reclamation. A RMP is an important tool in obtaining this goal.

The development of a RMP for Heart Butte Reservoir will provide the framework that will enable managers to make sound land use and resource management decisions that are consistent with overall management objectives, minimize conflicts among uses, and have public support. This RMP is prepared to help guide the management of lands and waters and assist in the preparation of annual work plans that reflect sound management decisions. The plan shall be in sufficient detail as to direct future development and use of resources while flexible enough to allow for the resolution of day-to-day operational issues. This RMP is designed to be used, referenced, revised, and updated annually as needed.

1.3 SCOPE

This RMP should achieve the following:

- Set 5-year goals for managing the project area
- Establish management units
- Assign each management unit a classification category in accordance with the authorized purpose for which it is to be managed
- Develop management unit packets that list the work to be accomplished within the 5-year period with a time and costs schedule to accomplish the work for each management unit.

Appendix C has maps showing all of the management units.

This RMP will be a working resource document and tool for managers and staff. It will be a useful reference for the day-to-day operations of the Heart Butte Reservoir facilities and

associated land and water resources. The information in this document shall permit the fluid and continuous management, development, and operation and maintenance work whenever personnel transition changes occur at the reservoir headquarters. The RMP describes the present operations of 39 management units identified within 5 land resource codes. The five land resource codes include:

- (01) - Project operation
- (02) - Recreation
- (03) - Multiple resource management
- (04) - Group use and
- (05) – Cabins and trailers.

1.4 PUBLIC INVOLVMENT

Heart Butte Reservoir is a popular public use area, and the demands placed on the facility are only projected to increase. Public involvement is a tool to gather information on the needs of the public. Public input increases the scope of the issues by ensuring a diverse examination of the resource.

The information is used to help make management decisions and to plan for the future within the constraints of our authority.

Public involvement activities resulted in data collected through the circulation of surveys, feedback from cabin association meetings, and the input from area residents, landowners, and recreation users to Heart Butte Facilities Manager David Herr and his staff.

Public meetings to discuss the draft RMP were held in March 2006. Comments were also accepted following the annual Heart Butte Cabin Association Meeting held in April 2006 in Bismarck, North Dakota. Summaries of the surveys and public meetings are attached as appendix D.

1.5 LOCATION

Heart Butte Dam and Reservoir, or Lake Tschida as it was renamed in 1958, is located in Grant County in the southwestern part of North Dakota. The reservoir is southwest of Bismarck about 70 miles and about 65 miles north of the South Dakota State border. Lake Tschida is located on the Heart River about 18 miles south of Glen Ullin, North Dakota (figure 1).



Figure 1: Route from Bismarck, North Dakota, to Heart Butte Dam

1.6 ENVIRONMENTAL COMMITMENT AND COMPLIANCE

The National Environmental Policy Act (NEPA) of 1969 (P.L. 91-190 as amended) is the basic national charter for protection of the environment. NEPA requirements direct government agencies to assess the effects of their actions. The regulations implementing NEPA provide several procedural avenues to determine if or how this requirement applies to a particular federal action. Reclamation’s activities at Heart Butte Reservoir include the continuation of normal operations in managing the natural resources and facilities.

The appropriate NEPA process will be completed for the implementation of the RMP. Project revisions and project concepts that differ from those already considered under this RMP will be considered under separate NEPA and NHPA compliance. Heart Butte Reservoir Manager must consult with DKAO Resources Division staff prior to altering approved project plans or amending approved project plans with additional project elements.

1.6.1 ENVIRONMENTAL COMMITMENTS

Reclamation recognizes the responsibility that comes with being a steward of the land. That responsibility includes managing the area to meet our environmental obligations. To ensure environmental compliance Reclamation will follow these guidelines:

1 -Native prairie will not be broken without additional NEPA analysis

2 -Dead trees will be allowed to deteriorate and/or will be replaced with native tree species common to the Heart Butte area with special attention to the use of woody shrubs such as buffalo berry, choke cherry, wild plum, snow berry (*Symphycarpus* spp), willow, and trees best associated with the available soils such as bur oak, green ash, cottonwood, *Juniperus* spp., using expertise available from National Resource Conservation Services. Effects and purposes of tree plantings will be considered prior to adding trees.

3- Thirteen wildlife areas will be maintained to continue or improve existing wildlife values.

4 - Normal operations include the issuance of Special Use permits through Right-of-Use applications for such innocuous activities on Reclamation lands, including, but not limited to:

organized recreational, public gatherings, and other special events;

commercial filming and photography

commercial or organized sporting events

agricultural and grazing leases for management purposes

haying for fuel load management

5 - Cultural resources will be avoided to the extent possible. Projects different from those described and analyzed herein after completion of the Heart Butte RMP will be considered in separate Section 106 consultation by DKAO's archaeologist.

6 - Projects and management issues that arise after completion of the Heart Butte RMP and/or differ substantively from those described and analyzed herein will be considered under separate NEPA analysis.

7 – No work will be conducted in waters of the U.S. without compliance with Section 404 of the Clean Water Act.

SECTION 2 PROJECT DESCRIPTIONS

The following generic descriptions will pertain to all management units. Any specific discussion required of the following categories for a particular management unit will be further described in the management unit folder.

2.1 PROJECT AUTHORITY AND PURPOSES

The Heart Butte Project was authorized under the Flood Control Act of 1944 for construction by P.L. 534 for the primary purpose of flood control and irrigation. Project construction was started in 1948 and completed in 1949. The act also provided construction appropriations for secondary benefits such as recreation and fish and wildlife.

Heart Butte Reservoir is the only sizable body of water in the area and it has become a popular recreation center. Picnicking, swimming, boating, camping, water skiing, and fishing are popular summer activities. Fall and winter activities include hunting, ice fishing, snowmobiling, and ice skating. Six designated areas along the shoreline have been permitted as group-use areas to the Boy Scouts, other youth groups and civic community clubs, and 225 sites for summer homes and trailers. The more remote areas are permitted for agricultural purposes.



Fishing is one of many recreation opportunities at Heart Butte.

The total area within the boundary of Heart Butte Reservoir is 10,975 acres of acquired lands. In addition there are 1807 permanent easement acres. Water surface area at elevation 2064 m.s.l. is 3,400 acres and the remaining upland habitat encompasses 7,575 acres. Reclamation manages these upland acres for:

Project operation	34 acres
Recreation	225 acres
Multiple resource management.....	6,575 acres
Group use	246 acres
Cabins and trailers	217 acres
Miscellaneous area	278 acres

2.2 HISTORY

The National Park Service developed the recreation plan for Heart Butte Reservoir and lands in 1952. Thirteen wildlife management areas were identified and ultimately developed and managed by the North Dakota Game and Fish Department (NDGF). In addition to identifying 13 wildlife areas, the recreation plan identified approximately 4,150 acres of “project lands” adjacent to the reservoir or Heart River, but were not designated for wildlife, recreation, or reservoir management purposes. According to Interior et al. (1955) these “other” lands were deemed unnecessary for wildlife or other recreation needs at the time and were made available for livestock grazing permits that continue to be issued today.

Public use of Heart Butte Reservoir had been administered by the NDGF for recreation and wildlife development from February 22, 1952 through May 25, 1979. NDGF discontinued recreation management on May 25, 1979, but continued wildlife management until 1994. The NDGF “relinquished management responsibility for the Heart Butte Wildlife Management Area, effective January 1, 1994.” (August 8, 1992 letter from NDGF signed by Ronald A. Stromstad, Chief, Wildlife Division).

Lake Tschida derives its name from Michael Tschida Sr. born in Vienna, Austria, in 1866, who immigrated to the United States in 1890. He settled in Mandan, North Dakota, and began work for the Northern Pacific Railroad. In 1900 he moved to Glen Ullin, worked in real estate, and was elected the first mayor of Glen Ullin in 1906. He pushed for the construction of the dam knowing what the benefits would be. He passed away in 1956 in a Minot nursing home at the age of 90.

2.3 CURRENT STATUS

2.3.1 OPERATIONS SUPPORTING PROGRAMS

SAFETY PROGRAM

The safety program for Heart Butte Reservoir follows the guidelines prescribed by the Reclamation Safety and Health Standards Manual. It incorporates the procedures prescribed in the Emergency Action and the Standing Operations Plans.

All facility features such as the dam, outlet works, river immediately below the dam, and the emergency spillway are routinely monitored to ensure the safety of the public and Reclamation employees.

Heart Butte staff is trained in first aid and CPR. First aid kits are located in the Heart Butte shop and in all vehicles. Weekly safety meetings are conducted and Job Hazard Analysis's are written to ensure job safety procedures are being considered and followed. Additional safety training is provided for chemical spraying, boat operation, equipment operation, defensive driving, and anything else deemed necessary by the DKAO Safety Officer.

PROJECT SECURITY PLAN

Reclamation entered into a cooperative agreement with the Grant County Sheriff's Department on September 11, 2001, for additional patrols/surveillance of the dam during elevated threat levels. Other security upgrades, during elevated threat levels, included placement of additional signage and buoys to keep people away from the dam and closure of the downstream recreational area.

The Site Security Plan for Heart Butte is scheduled to be completed in 2006. Copies of this plan will be kept at the Heart Butte Headquarters Office and in the DKAO in Bismarck, North Dakota. The purpose of the Site Security Plan is to document existing security systems, specific implementations of Reclamation's Threat Condition Protective Measures. This plan will be used in conjunction with other documents such as the Emergency Action Plan, Standing Operations Plan, and the Heart Butte Risk Assessment Report.

FLOOD CONTROL PLAN

Heart Butte Reservoir has a total capacity of 214,169 acre-feet (appendix E) at the top of the exclusive flood control (elevation 2094.5 m.s.l.), of which 147,027 acre-feet are for flood control storage, 67,142 acre-feet for active conservation, and 5,227 acre-feet for dead storage. The lake covers an area of 6,738 acres at the top of flood control (elevation 2094.5 m.s.l.).



Heart Butte Dam

The glory hole spillway crest elevation is 2064.5, auxiliary spillway crest elevation is 2109.0, and the dam crest elevation is 2124.0. The design maximum surface or probable maximum flood elevation is 2119.5.

The maximum reservoir elevation recorded to date (April 9, 1952) was 2086.28, 21.78 feet above the glory hole spillway crest, and the minimum elevation (October 25, 1991) was 2049.0, 15.5 feet below the glory hole spillway crest. The website www.usbr.gov/gp/hydromet is available to search for current or historical elevation readings.

All three trailer areas are located within the flood control zone, below 2094.5 m.s.l., and the majority of trailers would be partially or totally flooded at 2094.5.

Reclamation policy requires that all trailers, sheds, and decks remain readily portable. Wheels, axles, and hitches must remain attached and in a usable condition.

IRRIGATION PLAN

The Heart Butte Unit was authorized as a part of the Heart River Unit by the Flood Control Act of December 22, 1944, P.L. 534, which approved the general plan as set forth in Senate Document 191 and House Document 475, as revised and coordinated by Senate Document 247, 78th Congress, 2nd session. Construction of the initial phase of the unit began in April 1948 and was essentially completed by December 1949. Date of closure or first storage was October 4, 1949.

There are 13,100 acres of authorized irrigable acres, 10,000 acres lying in scattered tracts along the Heart River from Heart Butte Dam to the Missouri River. The principle irrigated crops produced include alfalfa and corn to support livestock needs.

The Western Heart River Irrigation District is operated and maintained by the Western Heart River Irrigation District. Private irrigators in the Lower Heart Irrigation Company operate and maintain individual irrigation systems.

2.3.2 NATURAL RESOURCES SUPPORTING PROGRAMS

FIRE PROTECTION PLAN

Reclamation is in the process of developing an agency-wide policy; when completed a comprehensive Fire Management Plan for Heart Butte will be included as appendix N. Until then the current policy is:

Structures located on Heart Butte Reservoir lands are protected from fire by gravel or groomed (mowed) surfaces. Cabin and trailer permit holders are expected to keep their lots free of debris and well manicured to prevent fire spread.

Heart Butte has one pull-type fire pumper (250 gallons) to be used by qualified personnel to suppress small spot fires and to protect government facilities. Reclamation does not have any firefighting authority, all wildfire and structural (cabin and trailer areas) suppression will be performed by either the Glen Ullin or Elgin Rural Fire Departments. Emergency 911 services are also available at Heart Butte.

FENCE MANAGEMENT PLAN

External fence (four-strand barbwire) exists around the entire boundary of Heart Butte Reservoir with the exception of ½ mile located in the far northwest corner of the reservoir lands. This section of boundary is scheduled to be fenced by the spring of 2008. Several miles of internal fence (three-strand barbwire) has been constructed and will continue to be constructed as needed to separate pastures in the grazing program and protect natural resources from public encroachment.

Repair and maintenance of many fences are the responsibility of the grazing permit holders, as outlined in the grazing permit. In areas where there is no grazing permitted, Reclamation staff performs any needed construction or repairs.

Several miles of old dilapidated fence, no longer needed, are being inventoried. These fences will be removed by Reclamation staff as work schedules permit.



West end of Lake Tschida

VEGETATION MANAGEMENT PLAN

Vegetation is managed at Heart Butte for wildlife habitat and to enhance public use. A variety of tools are used to aid in the management. They are:

GRAZING

Reclamation's management of grazing lands changed in 2006 from season long grazing to a rotational grazing program to improve the habitat and create a healthy environment for the public's use. A copy of a sample grazing permit is included in appendix F.

HAYING

A haying plan is used to manage grasslands as well as provide habitat and food for wildlife. A copy of a sample agreement is included in appendix F.

FOODPLOTS

Foodplots are provided to enhance wildlife habitat. Specifics of food plots are dealt with in the individual management units and are described in the specific contracts. A sample foodplot contract is included in appendix F.

TREE PLANTINGS

Trees are planted in wildlife and recreation areas to enhance wildlife habitat and recreation experience. Individual management units will deal with specific tree plantings in their plans.

CONTROLLED BURNS

Prescribed burning would be an effective tool in managing native grasslands because Heart Butte Reservoir lands contain a large amount of native prairies. The possibility of using trained and qualified fire staff from Reclamation or another agency (i.e., U.S. Fish and Wildlife Service, NDGF, or Tribe) to conduct prescribed burning operations is a viable option.

WEED CONTROL

A weed control plan is part of the Integrated Pest Management plan for Heart Butte. This plan deals with control of noxious weeds and undesirable vegetation. Weeds are controlled to meet North Dakota noxious weed laws. A copy of the Integrated Pest Management plan is included in appendix F.

CULTURAL/HISTORIC RESOURCES PLAN

Reclamation's DKAO archaeologist is developing a plan and map, in conjunction with the State Historic Preservation Officer, delineating areas which can be exempted from consultation for future actions. Some areas may be marked as exempt from shallow disturbance type projects, but may require monitoring of deeper ground disturbing undertakings such as constructing or replacing a drain field or foundation. The Heart Butte manager will have a copy of the map. All places will still be subject to the archaeological standards of notification if cultural resources are discovered.

In order to determine which prehistoric and historic sites on Reclamation lands are significant, or should be protected, they need to be evaluated for eligibility for nomination to the National Register of Historic Places (NRHP) according to specific criteria. If a site has integrity, is associated with a prominent person, has unique characteristics, or is typical of a certain style, it may be eligible. All the historic sites at Heart Butte are in various stages of disrepair, lack integrity, and are not eligible for nomination to the NRHP.

Prehistoric sites however are more often judged on their ability to give information or answer research questions. Evaluations normally require archaeological testing to determine eligibility. Until a site has been tested, it is assumed that it is eligible.

Over the last 10 years, Reclamation has worked to survey the lands for cultural resources, and has contracted with the University of North Dakota to test a number of sites that potentially meet the criteria for nomination eligibility. About a dozen of those tested meet the qualifications and require protection. Some of these sites are in or near cabin and trailer or recreation areas, but most cabin and trailer areas either have no known cultural resource properties or sites eligible for nomination to the NRHP.

Annually, "home improvement" projects around cabins and trailers require that the State Historic Preservation Officer be consulted until the plan and map is completed. Some sites along the reservoir shoreline have been impacted by the reservoir itself. The rising and lowering water levels, wave action, and resultant erosion have washed away some artifacts and stratigraphy. Some sites, which were significant before erosion destroyed cultural deposits, may still have

intact deposits below the water line. One riverside site (Beadmaker) that was eroding has been effectively stabilized. Other sites can be similarly protected or excavated. As part of the cultural resource plan for Heart Butte, Reclamation staff will continue to examine which sites would benefit from protective measures, including additional testing, excavation, stabilization, or monitoring.

Vandalism and looting damage cultural resource properties. Collection of artifacts was common before the land became federal property, and at least one rock shelter was destroyed after trailers were moved in and cabins built. Over time several local collectors have provided useful information to archaeologists working in the area. Signage is one method of deterring destructive behaviors, and Reclamation is in the process of designing signs which can be used at Heart Butte and other Reclamation lands. Heart Butte Reservoir brochures which are available at the kiosk state that collection of artifacts or paleontological specimens is against federal and State laws. While vandalism and looting of cultural sites do not appear to pose a risk to cultural sites at present, there is evidence of such activities at Heart Butte Reservoir (page 34). Training of management personnel and periodic monitoring of sites is another part of the cultural resources plan to maintain that level of protection. Those caught collecting fossils or cultural resources or vandalizing such sites will be prosecuted.

The final facet of the cultural resource plan would emphasize public education. An interpretive sign is part of the kiosk at the entrance to the southern area of the lake which explains some of the cultural history of the area. There may be other opportunities to heighten public awareness of the prehistoric and historic cultural heritage, our function, and mission of reservoir lands elsewhere in the cabin and trailer or camping areas.

2.3.3 RECREATION SUPPORTING PROGRAMS

SAFETY

The safety program for Heart Butte will follow the guidelines prescribed by the Reclamation Safety and Health Standards Manual. It will incorporate the procedures prescribed in the Emergency Action and the Standing Operations Plans.

LAW ENFORCEMENT AND FACILITIES SECURITY

Establishing law enforcement at Heart Butte was a major concern in the late 1970's and early 80's. Since that time legislation has passed enabling Reclamation to contract with the Grant County Sheriff's Department for local law enforcement services within public use areas. The current contract term is 5 years and expires on September 30, 2006. It is anticipated that another contract will be negotiated for execution in October 2006.

Cabin and trailer owners had requested extending the contract to provide security to their permitted sites during the winter months. Reclamation is unable to address that request because the legislation specifically identifies service to public use areas. The cabin and trailer areas are private use permit sites and law enforcement provided to those areas is a result of tax payments to the county. Any patrol of the cabin and trailer areas would have to be negotiated between the Heart Butte Cabin Association and the Grant County Sheriff.

Hunting and fishing regulations are governed by State law and are enforced by NDGF Conservation Officers.

Law enforcement policy and issues should be coordinated with the Regional Law Enforcement Officer, who is in the Great Plains Regional Office in Billings, Montana. The phone number is 406-247-7617.

Appendix R is a copy of the current Law Enforcement Contract.

CABINS AND TRAILERS

Reclamation staff administer season long (typically April through October) existing use permits for 4 cabin areas involving 110 cabin sites and 3 trailer areas involving 114 trailer sites. Reclamation policy is not to provide any additional cabin and trailer sites beyond those now in existence or currently approved. Reclamation's overall guidance is provided by 43 CFR 21-Occupancy of Cabin Sites on Public Conservation and Recreation Areas.

A cabin and trailer site permit is a privilege, providing special benefits to a permit holder above and beyond those which accrue to the general public. Reclamation ensures that fair market value permit fees are collected for the use of the cabin and trailer sites. The 2007 rental rates are \$450 for a trailer site and \$500 for a cabin site.

Fee Determination – Our administrative guidelines (43 CFR part 429) require periodic review of rental fees to ensure they reflect current fair market value for benefits received and administrative cost recovery.

Reclamation will participate in the annual cabin association meetings to ensure communication opportunities.

GROUP USE

Reclamation issues group-use permits to the Boy Scouts of America, Farmers Union Camp, Prairie Learning Center, Elgin Lions Club, Carson Wildlife Club, and New Leipzig Town and Country Booster Club.

Yearly meetings with group use permit holders will be scheduled to maintain communication.

CONCESSION MANAGEMENT

The North Shore concession area is managed by a concessionaire. The concession agreement is put out for bid and the successful bidder is issued a 5-year agreement. For a more detailed look at the concession operation, refer to the concession agreement in the appendix.

MAINTENANCE

Reclamation annually spends on average \$350,000 to maintain Heart Butte recreation areas and develop associated facilities such as vault toilets, picnic tables, shelters, and universally-accessible facilities. Some funds are for contracts to mow, clean toilets and fire rings, trash pickup, and pump vault toilets. The Heart Butte staff also mows part of the recreation areas, removes trash, and plants trees as needed.

ROADS

There are approximately 11.5 miles of gravel roads within the boundaries of Heart Butte Reservoir lands. Reclamation has a maintainer and grades the roads an average of five times a year, depending on weather and road conditions. Some of the heavier traveled roads require additional passes during the recreation season (April through October). No winter road maintenance is performed. Roads leading up to Reclamation lands are maintained by Grant County.

Reclamation also adds additional gravel to these roads on an as needed basis, as long as gravel supply is available and when budgets allow.

WASTE MANAGEMENT

Reclamation contracts out its garbage collection services. Campground garbage collections begin in early May and run through early November. Cabin and trailer area garbage collections begin the first Tuesday in May and are performed weekly through the last Tuesday in September. All garbage collection is for household garbage only, no furniture, appliances, building materials, etc. will be picked up. Materials other than household garbage must be taken to an approved landfill. The nearest landfill to Lake Tschida is located in Glen Ullin, North Dakota.

VOLUNTEERS

Reclamation uses public interaction and Public Service Announcements to encourage and heighten public volunteer participation to improve public lands. Volunteers help to manage and enhance recreation. Historically, volunteers have helped with tree plantings and litter control of recreation areas and camp sites. These activities are typically associated with planned Earth Day and Public Lands Day events. Volunteers will be used as campground hosts when the host sites are completed.

Plans for volunteer help are included in individual management unit plans or are attached in appendix O.

2.3.4 SPECIAL CONCERNS

RULES AND REGULATIONS

Rules and regulations governing behavior/conduct and activities on Heart Butte Reservoir lands and waters are posted on signs around the project. They do not supersede or negate any applicable State or federal regulations.

A copy of the rules and regulations is attached as appendix B.

COLLECTION OF NATURAL RESOURCES

Collection of natural resources such as, but not limited to, rocks, gems, artifacts, or animal remains is not allowed on project lands without permission by Reclamation. This may include the issuance of a special use permit (refer to section on special use permits).

FIREWOOD COLLECTION

Only dead, downed tree branches within the recreation areas may be picked up and used as camp firewood, and may only be burned inside fire rings and grills. Firewood may be purchased at the concession, when available. No cutting of live trees or branches is allowed.

As some older tree plantings age and die, special use permits may be issued to allow the public to salvage usable firewood and cleanup tree plantings in preparation of replanting the tree rows. If wood cutting permits become available, they will be advertised and issued by the Heart Butte Facilities Manager.

SPECIAL USE PERMITS

The DKAO administers numerous types of permits to our external customers, including agricultural, mining (general, seismic, burrow), crossings (lands, utilities), and training activities (i.e., National Guard). Special use customers are required to enter into a special use permit; an initial application fee is required for special use permits.

Guidance and the process are described in the document “DKAO Guidance for Obtaining a Special Use Permit & the NEPA Process” September 30, 2003. The document is attached in appendix I.

LOST, FOUND, OR ABANDONED PROPERTY

Lost property should immediately be reported to the Heart Butte Reservoir Manager’s Office and/or the Grant County Sheriff’s Office. Found items can be turned in at the Heart Butte Reservoir Headquarters. Found or abandoned property will be held for 60 days after which it will become the property of Reclamation.

MAINTAINING NATURAL AND PRIMITIVE AREAS

Currently, no lands are designated as natural or primitive. Access to project lands is restricted to developed roads and trails, and some areas have only walk-in access.

GUIDED HUNTING AND FISHING

The State standards for guiding hunters or anglers in North Dakota are in the document “North Dakota Guide and Outfitter Handbook and Test Guide.” It states that “A person may not act as a hunting/fishing guide or hunting/fishing outfitter on federal land without being authorized or permitted as required by the appropriate federal agency.”

Reclamation procedure is that guided/outfitted hunting and fishing will be handled through a concessions policy. The concessions policy requires:

- Determination of a public need for the service.
- Demonstrate that the same services can not be provided on adjacent public lands.
- Determination of how many outfitter/guides is appropriate for the area.
- The contract to operate on the area is put up for public bid.

This action would also trigger NEPA compliance at the expense of the applicant.

SIGNAGE

Numerous signs are used to help manage Heart Butte. New signs must follow Reclamation policy which is contained in the publication “Sign Guidelines for Planning, Designing, Fabricating, Procuring, Installing, and Maintaining Signs for Outdoor Public Use Areas” October 2006.

DAY USE AREA MANAGEMENT

Day use picnic shelters are located in the Rimrock, Downstream, and Crappie Creek Recreational Areas. All three picnic shelters are ADA accessible and provide grills and tables. They are available for public use on a first come first served basis for not more than 6 hours within any 24-hour period. These shelters may be reserved for special events provided it does not exclude the general public or violate Reclamation rules and regulations. A special use permit must be acquired from Reclamation to reserve a shelter, and may require an application fee.

HAZARDOUS WASTE MANAGEMENT

The responsibility for proper management of hazardous waste generated by Reclamation lies with every involved Reclamation employee. Laws and regulations specifically impose liability upon those employees who have direct involvement in generation and management of hazardous waste.

Specific responsibilities are outlined in the “Handbook for Hazardous Waste Management” produced by U.S. Department of the Interior Bureau of Reclamation. A copy is on file at the Heart Butte Reservoir headquarters for reference.

Hazardous chemicals used at Heart Butte are listed in the Integrated Pest Management Plan (appendix F).

SECTION 3 RESOURCES INVENTORY

3.1 NATURAL RESOURCES

3.1.1 GEOLOGY/PALEONTOLOGY

Heart Butte Reservoir is located in the Missouri Plateau section of the Great Plains Province (Fenneman 1931), which is characterized by rolling uplands, isolated buttes, sections of badlands, and terraced stream valleys. The topography was affected by the movement of glacial ice and streams. This area is less affected by glaciation than the terrain east and north of the Missouri River.

The Heart River is a perennial stream whose valley floor lies about 200 feet below the uplands. The river channel is cut into alluvium, but where it meanders against the main valley walls there are bluffs of bedrock.

Outcroppings of bedrock in the reservoir area belong to the Paleocene Bullion Creek Formation which is part of the Fort Union Group. This consists of a basal zone of fine sand overlaid by zones of shale, clay, and sand. Large deposits of lignite coal are present in the Fort Union Group. The natural burning of these deposits produces “clinker” or “scoria,” a brick-red porous rock commonly found in the area. Knife River flint, formed by the silicification of lignite, is reported to be associated with Fort Union beds, although in small quantities. Knife River flint and other sedimentary rock that were important to indigenous cultures are present as outcroppings and gravels. In some areas the basal sands of the formation are cemented and more resilient than the surrounding materials. This results in occasional shallow rock overhangs. For a more detailed geologic description refer to appendix G.

In 2002, State Paleontologist John Hoganson and Paleontologist Jonathan Campbell surveyed the reservoir (Hoganson and Campbell 2002). They mapped 30 fossil sites. Freshwater mollusks of various species were found at most of the sites, with many of the specimens seen in good condition--at least 6 of the sites are significant and 13 sites contained vertebrate animal fossils. All of these sites are significant because vertebrates are uncommon in Bullion Creek Formations. Several of the discoveries have a high potential for yielding partially articulated fish skeletons or mammal bone. Two other sites are considered significant for plant remains.

Evidence was found of looting, particularly of the latter two sites. Fossil plants are being removed from one site, and chips off the fossil log are apparent. It is likely that fossil mollusks and vertebrates may be affected as well. Although paleontology is part of geology, illegal looting and vandalism of paleontological sites is similar to that of cultural sites. Both are nonrenewable resources from which important information can be lost through such activities. Training of management personnel and monitoring of paleontological sites will be accomplished in conjunction with completion of the cultural resource plan (page 16).

3.1.2 CLIMATE

Missouri Plateau, Level IV Ecoregion

Heart Butte Reservoir, on the Heart River, lies within the Missouri Plateau, west of the Missouri River in the Northwestern Great Plains ecoregion as described at <http://www.npwrc.usgs.gov/resource/1998/ndsdeco/nodak.htm>. In contrast to eastern North Dakota, which was influenced by glaciation and sedimentation, this area of southwestern North Dakota totals nearly 20,000 square miles of unglaciated land mass. Elevation of the area ranges from 1750 to 3300 above m.s.l. Temperatures exhibit the “frigid” regime and range from a mean January high of 21°F and mean minimum of -3°F. July temperatures range from a mean high of 83 to a mean minimum of 55. Moisture regime is ustic with a mean annual precipitation of 15 to 17 inches. Mean annual frost free days within the region range from 95 to 130.

3.1.3 SOILS

Soils in the Heart Butte Reservoir watershed are moderately deep to shallow, formed from weathered, loamy glacial till or soft bedrock. In general, soils are moderately fertile to fertile, well drained, and susceptible to wind and water erosion.

A small percentage of the Heart Butte Reservoir watershed is composed of badlands. Badlands are eroded formations composed of buttes and steeply eroded drainages. Soils are generally thin, formed from sandy and clayey materials. Badland areas are highly susceptible to wind and water erosion.

For a more detailed soils description and map of soils distribution refer to appendix H.

3.1.4 HYDROLOGY

Heart Butte Reservoir is fed by the mainstream Heart River. Located about midway on the streams meandering journey to the Missouri River, the reservoir collects runoff from 1810 square miles.

Ground water is available from aquifers in bedrock formations of the late Cretaceous age, 140 to 65 million years ago, (Fox Hills Aquifer) and the Tertiary age, 65 to 1.6 million years ago (Tongue River Aquifer). They are recharged by precipitation in the higher elevations and movement is generally downward and to the north east. The water becomes increasingly saline as it moves from recharge areas toward discharge areas in the drainage valleys. The Heart River Valley Aquifer is in alluvial deposits of the Holocene age, 10,000 years ago to the present. It is located in the flood plain and terraces of the Heart River. It is recharged by precipitation and high stream flows. (“Ground-Water Resources of Grant and Sioux Counties North Dakota” by P.G. Randich, USGS 1979.)

3.1.5 VEGETATION

Missouri Slope. About 75 percent of the mixed and short-grass prairie of the Missouri Slope has been converted to other uses (USGS 2001). This is probably due to ease of conversion to modern agricultural uses. Historically, undisturbed areas, not modified by the reservoir project or cultivation, may have contained blue grama, wheatgrass/needle grass association, little bluestem and or prairie sandreed. The reservoir lands within the recreation and cabin and trailer areas are dominated by smooth brome, a highly successful invader species. It appears that brome out competes native vegetation during the short growing season. The western reservoir lands are primarily undulating, mixed grass prairie. Cottonwood and willow are present along the river shoreline above the reservoir. Several woody draws adjacent to the reservoir have bur oak and green ash, with an interspersion of buffaloberry and chokecherry shrubs. The land surrounding the Heart Butte Reservoir Project is dominated by dry land farming, haying, and grazing operations. Alfalfa, spring wheat, barley, oats, and sunflowers are the predominant crops.

Project lands provide a broad range of habitat types that include lake, river, stream, prairie wetland, and woody draw habitats within the Heart Butte Reservoir Project and vary as the observer progresses upstream from the dam. Cultivated tree plantings and foodplots are associated with managed wildlife and recreation areas while native woody draws and riparian timber stands associated with the unmodified Heart River can be found as the observer proceeds upstream from the west end of the lake.



Whitetail deer

3.1.6 WILDLIFE

Heart Butte Reservoir, regardless of the relatively dry and cool climate, supports a diverse mixture of primarily mixed grassland, steppe associated wildlife species. The U.S. Geological Survey, Northern Prairie Wildlife Research Center (NPWRC) internet site at <http://www.npwrc.usgs.gov> lists an array of online resources, inventories, and investigations of vertebrates of the ecoregion (refer also to Grondahl, Chris No Date). Vertebrates of the ecoregion range in size from big game species such as white tailed and mule deer and American pronghorn

to the small mammals of the area such as masked and short tailed shrew, little brown myotis, and the 1 inch long western chorus frog. Endangered or threatened species are discussed separately.

American Society of Mammalogists list 47 species of mammals that are likely or suspect residents of the Heart Butte Reservoir project lands. Refer to the list of mammals common to Southwestern North Dakota at <http://www.npwrc.usgs.gov/resource/mammals/mammswnd/mammswnd.htm>, Seabloom et.al. (1978). Small Mammals of North Dakota. North Dakota Game and Fish Department, Bismarck, ND. Jamestown, ND: Northern Prairie Wildlife Research Center Home Page <http://www.npwrc.usgs.gov/resource/distr/mammals/mammals/mammals.htm> (Version 15AUG97) and Jones et al. (1985).



Ring-necked pheasant

Birds of the Southwestern Slope Region describes 36 bird species in 48 families in Breeding Birds of North Dakota available at <http://www.npwrc.usgs.gov/resource/birds/bb/of/nd/biog.htm>. Birds occupy virtually all areas and habitats of the project, including grassland, wetland, lake, river, wooded and woody draw habitats. The area is occupied by grassland ground nesters, brush nesters, and tree nesters. Common game birds present include turkeys, sharptail grouse, and pheasants. Common nongame bird groups of the area include vireos, grassland sparrows, warblers, various waterfowl species, and a broad variety of both ground and tree nesting hawks and owls (Stewart 1975).

Seabloom et al. (1978) lists 12 reptiles including lizards, turtles, and snakes and 8 amphibians including toads, frogs, and one salamander for the southwest region of the State that includes Heart Butte Reservoir area. Information specific to these Reclamation lands is very limited regarding identification resident species of herps. There has been little site-specific field effort to locate specific representatives in the project area since Seablooms work. A broad range of habitat types supporting amphibians and reptiles are exhibited across the Heart Butte Reservoir Project lands. <http://www.npwrc.usgs.gov/resource/herps/herpswnd/herpswnd.htm> (Version 16JUL97). See also for a pictorial guide to reptiles and amphibians of North Dakota (Hoberg and Gause 1992).

Invertebrates/Mollusks – Invertebrates and mollusks commonly reflect environmental conditions on a local basis. No invertebrate information specific to the Heart Butte Reservoir or southwest region of North Dakota was identified during literature research for this RMP.

Historical Look at Wildlife Management On Heart Butte Reservoir Project Lands – The NDGF Regional Manager of the Heart Butte Reservoir Project area identified pheasants and deer as the species of management interest during their many years of management. NDGF expressed further concerns regarding (1) the continued availability of public access to project lands either through maintenance of existing access roads or purchase of access agreements with adjacent private landowners, and (2) increased management input into and authority over long-term dynamics of grazing leases (Bruce Renhowe – NDGF, personal communications 02/28/05). NDGF no longer manage the nonessential project lands at Heart Butte Reservoir.

Hunters utilize project lands, typically, during the fall hunting seasons. Considerable project acreage is available for nature observation. However, the relative distance of the reservoir to a population center leaves this resource relatively untapped by naturalists.

In addition to 13 project-plan, designated, wildlife areas, there are approximately 4,150 acres of grazing permit lands adjacent to the reservoir that Reclamation actively manages for increased benefit to wildlife. Such diversity in habitats supports a diversity of wildlife species. Project lands habitat types include lake, river, stream, prairie wetland, and woody draw habitats within the Heart Butte Reservoir Project and vary as the observer progresses upstream from the dam. Cultivated tree plantings and foodplots are associated with managed wildlife and recreation areas while native woody draws and riparian timber stands are associated with the unmodified Heart River upstream from the west end of the lake into the river region of the project.

3.1.7 THREATENED AND ENDANGERED SPECIES

Both State and federal wildlife sources were consulted. The U.S. Fish and Wildlife Service (Service) list of endangered and threatened species potentially effected by management actions at the Heart Butte Reservoir include the bald eagle (*Haliaeetus leucocephalus*), whooping crane (*Grus americana*), and black footed ferret (*Mustela nigripes*). However, there are no resident, federally-listed, threatened or endangered species that regularly frequent the project. There are critical habitats designated within the project.

Distribution and Abundance – The bald eagle is listed as threatened in all of the lower 48 states by the Service (Federal Register 1995) and was proposed to be removed from the list of Threatened and Endangered Wildlife (Federal Register 1999). Preferring forested habitats near bodies of water, the breeding population of bald eagles in North Dakota is primarily concentrated on the Missouri River between Garrison Dam and Fort Yates. Bald eagle activity in and around Heart Butte is primarily comprised of transient migrating individuals. The popularity of Heart Butte Reservoir with outdoor recreationists during the spring and summer months coincides with the nesting period. The historic level and duration of human recreation activity may deter breeding bald eagles from establishment around the project. Other areas of the Heart River provide more seclusion and security, including the upper reaches of the project lands. However, no breeding bald eagle activity has been recorded for the project lands or the immediate vicinity.

Bald eagles may pass through any part of the State during migration. These large birds commonly winter near open water that affords a source of prey, including fish and waterfowl, and where protection and large trees afford adequate protected roosting sites. A source of prey alone may not be sufficient to attract or support birds to the area for purposes of nesting.



Bald Eagle



Whooping Crane

Distribution and Abundance – The whooping crane is a federally-listed species and was among the first group of birds listed as endangered species under the Endangered Species Act in 1966 (<http://endangered.fws.gov/1966listing.html>). Most sightings of whooping cranes occur during migration in the western half of North Dakota. Breeding whooping cranes were last documented in North Dakota in 1915. Today only two populations exist in the wild. Individuals belonging to the Wood Buffalo – Aransas, Texas, population migrate through the Dakotas twice a year, spring and fall.

Species of Concern

North Dakota Department of Parks and Recreation, home to the Natural Heritage Database for North Dakota, provided Reclamation with a list of the State's species of concern (Table 1), including one endangered species associated with the presence of prairie dogs (Mammals of North Dakota ASM online resource). Black footed ferret is considered extirpated in North Dakota. Species of State concern are afforded no protection under federal law.

North Dakota Natural Heritage Inventory								
State Scientific Name	State Common Name	Township & Range	Section	TRS Notes	State Rank	Global Rank	Federal Status	Last Observation
BARTRAMIA LONGICAUDA	UPLAND SANDPIPER	136N088W	19		S?	G5		1994-06
MERGUS MERGANSER	COMMON MERGANSER	136N088W	30		SH	G5		1994-06
JUNIPERUS HORIZONTALIS/CAREX INOPS SPP.	HORIZONTAL JUNIPER SHRUBLAND	136N089W	13	NW4; SEC. 14	S3			1990-06-06
HELIOPHILA DWARF-SHRUBLAND	NEEDLE-AND-THREAD MIXED GRASS PRAIRIE	136N089W	13	NW4 & SW4SW4; SEC 10 SW4	S2			1990-06-06
STIPA COMATA - BOUTELOUA GRACILIS/CAREX FILIFOLIA PRAIRIE	SMOOTH CLIFFBRAKE -fern	136N089W	15	NW4NE4	S4	G5		1990-06-06
PELLAEA GLABELLA	UPLAND SANDPIPER	136N090W	28		S?	G5		1994-06
BARTRAMIA LONGICAUDA	UPLAND SANDPIPER	136N090W	29		S?	G5		1994-06
BARTRAMIA LONGICAUDA	UPLAND SANDPIPER	136N090W	30		S?	G5		1994-06
BARTRAMIA LONGICAUDA	UPLAND SANDPIPER	137N090W	34		S?	G5		1994-06

Table 1: North Dakota Department of Parks and Recreation results of Natural Heritage Database query for unique flora and fauna associated with the Heart Butte Reservoir Project lands and immediate vicinity.

Global and State Rank

Each element is ranked on the basis of its global (range-wide) and state rarity. These ranks are assigned according to a standardized procedure used by the Natural Heritage Program.

These ranks are necessary to set priorities for both inventory and protection efforts. High ranking elements receive attention before low ranking elements. To rank elements in the relative order of importance, The Nature Conservancy developed a ranking system that assigns each community or species a statewide and a global rank. These ranks are defined as follows:

Global Ranks

- G1 Critically Imperiled – Critically imperiled globally because of extreme rarity or because of some factor of its biology making it especially vulnerable to extinction. Typically 5 or fewer occurrences or very few remaining individuals (<1,000) or acres (<2,000) or stream miles (<10). [Critically endangered throughout its range.]
- G2 Imperiled - Imperiled globally because of rarity or because of other factors demonstrably making it very vulnerable to extinction or elimination throughout its range. Typically 6 to 20 occurrences or few remaining individuals (1,000 to 3,000) or acres (2,000 to 10,000) or stream miles (10 to 50). [Endangered throughout its range.]
- G3 Vulnerable – Vulnerable globally either because very rare and local throughout its range, found only in a restricted range (even if abundant at some locations) or because of other factors making it vulnerable to extinction or elimination throughout its range. Typically of 21 to 100 occurrences or between 3,000 and 10,000 individuals. [Threatened throughout its range.]
- G4 Apparently Secure – Uncommon but not rare (although it may be quite rare in parts of its range, especially at the periphery), and usually widespread. Apparently not vulnerable in most of its range, but possibly cause for long-term concern. Typically more than 100 occurrences and more than 10,000 individuals.
- G5 Secure – Common, widespread, and abundant (although it may be quite rare in parts of its range, especially on the periphery). Not vulnerable in most of its range. Typically with considerably more than 100 occurrences and more than 10,000 individuals.
- GX Presumed Extinct (species elements) - Believed to be extinct throughout its range (e.g., passenger pigeon), virtually no likelihood that it will be rediscovered.
Eliminated (community elements) – Eliminated throughout its range, with no restoration potential due to extinction of dominant or characteristic species.
- GH Possibly Extinct (species elements) - Of historical occurrence throughout its range, i.e., formerly part of the established biota, with the expectation that it may be rediscovered (e.g. Ivory-billed woodpecker).
Presumed Eliminated (Historical) (community elements) – Presumed eliminated throughout its range, with no or virtually no likelihood that it will be rediscovered, but with the potential for restoration.
- G#G# Range Rank – A numeric range rank (e.g., G2G3) is used to indicate uncertainty about the exact status of a taxon. Ranges cannot skip more than one rank (e.g., GU should be used rather than G1G4).
- GU Unrankable – Currently unrankable due to lack of information or due to substantially conflicting information about status or trends.
- G? Unranked – Global rank not yet assessed.
- HYB Hybrid – Element not ranked because it represents an interspecific hybrid and not a species.
- ? Inexact Numeric Rank – Denotes inexact numeric rank.
- Q Questionable Taxonomy – Taxonomic status is questionable; numeric rank may change with taxonomy.
- C Captive or Cultivated Only – Taxon at present is extant only in captivity or cultivation, or as a reintroduced population not yet established.
- T_ Intraspecific Taxon (trinomial) – The status of intraspecific taxa (subspecies or varieties) is indicated by a “T-rank” following the species’ basic global rank. A T subrank cannot imply the subspecies or variety is more abundant than the species’ basic global rank (i.e., a G1T2 subrank should not occur).

State Ranks

- S1 Critically Imperiled – Critically imperiled in the state because of extreme rarity or because of some factor of its biology making it especially vulnerable to extirpation from the state. Typically 5 or fewer occurrences or very few remaining individuals (<1,000). [Critically endangered in state.]
- S2 Imperiled – Imperiled in the state because of rarity or because of other factors making it very vulnerable to extirpation from the state. Typically 6 to 20 occurrences or few remaining individuals (1,000 to 3,000). [Endangered in the state.]
- S3 Vulnerable – Vulnerable in the state either because rare and uncommon, or found only in a restricted range (even if abundant at some locations), or because of other factors making it vulnerable to extirpation. Typically 21 to 100 occurrences or between 3,000 to 10,000 individuals. [Threatened in the state.]
- S4 Apparently Secure – Uncommon but not rare, and usually widespread in the state. Possible cause of long-term concern. Usually more than 100 occurrences and more than 10,000 individuals
- S5 Secure – Common, widespread, and abundant in the state. Essentially ineradicable under present conditions. Typically with considerably more than 100 occurrences and more than 10,000 individuals.
- SX Presumed Extirpated – Element is believed to be extirpated from the state. Virtually no likelihood that it will be rediscovered.
- SH Possibly Extirpated (Historical) – Elements occurred historically in the state, and there is some expectation that it may be rediscovered. Its presence may not have been verified in the past 20 years.
- S? Unranked – State rank not yet assessed.
- SU Unrankable – Currently unrankable due to lack of information or due to substantially conflicting information about status or trends.
- S#S# Range Rank – A numeric range rank (e.g., S2S3) is used to indicate the range of uncertainty about the exact status of the element. Ranges cannot skip more than one rank (e.g., SU should be used rather than S1S4).
- HYB Hybrid – Element not ranked because it represents an interspecific hybrid and not a species.
- SE Exotic - An exotic species established in the state; may be native in nearby regions.
- SE# Exotic Numeric – An exotic established in the state that has been assigned a numeric rank to indicate its status, as defined for S1 through S5.
- SA Accidental – Accidental or causal in the state (i.e., infrequent and outside usual range). Includes species (usually birds or butterflies) recorded once or only a few times. A few of these species may have bred on the one or two occasions they were recorded.
- SZ Zero Occurrences – Present but lacking practical conservation concern in the state because there are no definable occurrences, although the taxon is native and appears regularly in the state. An SZ rank will generally be used for long distance migrants whose occurrences during their migrations have little or no conservation value for the migrant, as they are typically too irregular (in terms of repeated visitation to the same locations), transitory, and dispersed to be reliably identified, mapped, and protected.
- SP Potential – Potential that element occurs in the state but no extant or historic occurrences are accepted.
- SR Reported – Element reported in the state but without a basis for either accepting or rejecting the report, or the report not yet reviewed. Some of these are very recent discoveries for which the program hasn't yet received first-hand information; others are old, obscure reports.
- SRF Reported Falsely – Element erroneously reported in the state and the error has persisted in the literature.
- SSYN Synonym – Element reported as occurring in the state, but state does not recognize the taxon; therefore the Element is not ranked by the state.
- * S rank has been assigned and is under review. Contact the individual state Natural Heritage program for assigned rank.
- B Breeding – Basic rank refers to the breeding population of the Element in the state.
- N Non-breeding – Basic rank refers to the non-breeding population of the Element in the state.
- ? Inexact Numeric Rank – Denotes inexact numeric rank.
- C Captive or Cultivated – Native element presently extant in the state only in captivity or cultivation or as a reintroduced population not yet established.

3.1.8 FISHERIES

Fisheries: Fish species in the Heart River and Heart Butte Reservoir include northern pike, tiger muskie, walleye, white bass, crappies, bluegill, sauger, perch, catfish, carp, suckers and bullhead. Increased flows in the Heart River, due to irrigation releases from Heart Butte Dam, have enhanced the fishery conditions in the river, and both the river and reservoir are recognized as major fisheries in the State. In 1962, the Service in an initial follow-up report on the “Fish and Wildlife Resources of Heart Butte Reservoir” stated “Prior to construction of the Heart Butte Dam the fishery resources of the Heart River were meager because of the intermittent nature of the stream.” The only fishing was in the first 5 miles above its junction with the Missouri River; the last mile or 2 of this was influenced by backwater from the Missouri River. The rest of the stream was fishable only at spawning time under the influence of snowmelt.

Sport fishing has been enhanced by the NDGF stocking program which began in 1950 and continues today. NDGF introduced Gizzard shad as a forage fish that can reproduce in a mud bottom substrate and provide a greater food source for predatory game fish. It is a prolific breeder in mud bottom and does not over winter in cold climate waters, avoiding unwanted overpopulation. Gizzard shad was introduced into Heart Butte Reservoir in 2004 and again in 2005.

NDGF Fishery Management Plan is included in appendix K.

3.2 CULTURAL RESOURCES

3.2.1 HISTORIC AND PREHISTORIC CULTURAL RESOURCES

The National Historic Preservation Act (NHPA) and other laws, regulations, Executive orders, and guidelines specify Reclamation’s role and responsibility in the management and protection of cultural resources on public lands such as those being addressed in the Heart Butte Reservoir RMP. Cultural resources, as defined in the NHPA, are archaeological, historical, or architectural sites, buildings, structures, objects, and districts, or properties of traditional religious and cultural importance to Native Americans.

An archaeological site may be defined as containing “material remains of past human life, such as artifacts, structures, plant and animal remains, and other archeological resources (Hutt et.al. 1992:13).” Items or features at a site may be dated to a single episode within prehistory or history or more than one occupation may be represented, labeling the site multi-component. Some multi-component sites contain both prehistoric and historic elements. Archaeological sites that consist of artifacts spread over an area, rather than structures, are defined as artifact scatters. The State Historical Society of North Dakota defines sites with less than 10 artifacts and no possibility of buried cultural deposits or other remains as isolated finds, and reported but unconfirmed sites are labeled as site leads.

OVERVIEW OF THE PREHISTORY AND HISTORY OF THE AREA

The State of North Dakota's archaeological plan, *The North Dakota Comprehensive Plan for Historic Preservation: Archeological Component*, divides the State into regions, and describes the archaeological context of each region (State Historical of North Dakota 1990). Study units are usually defined by river drainage patterns and, predictably, the Heart Butte Reservoir is contained within the Heart River Study Unit.

The earliest recorded cultural resource survey in the area was done by Cooper in 1946 in connection with the Smithsonian Institution River Basin Surveys along the Missouri and its tributaries before the reservoir was complete. Historic Research Associates (HRA), the University of North Dakota (UND), past Reclamation archaeologists, and a vocational archaeologists have also played important roles in developing the reservoir's cultural timeline. While some sites were inundated by the reservoir, inventory and protection of significant cultural resources continues to be an ongoing concern on Reclamation lands. Some places have been covered more than once, test excavations have been done on selected sites, and an eroding prehistoric site along the bank of the Heart River was stabilized.

Four prehistoric time periods as well as proto-historic and historic periods have been classified through studies of archaeological sites. They are: *Paleo-Indian, Archaic, Plains Woodland, Plains Village, Proto-Historic (includes Equestrian), and Historic*. Table 2 contains a generalized description of past lifestyles and the types of sites that are found associated with each time period, followed by a brief overview of what is known about the prehistoric use of the study units.

PERIOD	DURATION	DESCRIPTION	SITE CHARACTERISTICS
Paleo-Indian	12,000 to 8,000/7,500 years bp (before present)	Nomadic hunter-gatherers who hunted extinct species of animals.	Sites contain plant and animal remains and distinctive tools and projectile points
Archaic	Early Middle Late	7,500 to 5,000 years bp 5,000/3,000 years bp 3,000-2,000/1,500 years bp	Nomadic, generalized hunter-gatherers who hunted "modern" animals and gathered plants. Used the spear thrower (atlatl).
Plains Woodland	Early Middle Late	2,500 to 2000 years bp, 100 BC to AD 600 AD 600 to 1650	Increased sedentism, introduction of horticulture, ceramics, and bow and arrow.
Plains Village		AD 1000 to 1850	Increase in horticulture and seasonal bison hunts and resource acquisition trips
Nomadic Equestrian/ Proto-historic		AD 1650-1850	Non-Indian trade goods. Introduction the horse and equestrianism
Historic		Circa AD 1750 to Present	Non-Indian immigration and technology into the area. Intensive agriculture, ranching and early irrigation systems

Table 2

3.2.2 CULTURAL RESOURCE PROPERTIES

Most of the major periods in the cultural timeline are represented by one or more sites on Reclamation lands around the reservoir. There are no known sites for the very early Paleo-Indian, the beginning of the Archaic, and the Early Plains Woodland time periods. These breaks in the prehistoric record may be explained by severe drought, thick soil deposition, or sites may have been found, but no diagnostics were recovered and so their time period is listed as unknown. The last reason is why Equestrian is not listed with the other three time periods. Given the number of sites which generally appear to date within the Plains Village and Equestrian time periods, there is a reasonable certainty that some are Equestrian, even though no diagnostics specific to Equestrian Tribes have been found.

Certainly the Reclamation lands, that now compromise Reclamation's Heart Butte project, attracted people throughout prehistory. Waterways were used as transportation avenues before the arrival of the horse. The area had herds of bison and other game animals and lithic resources for tools, and except during severe droughts the present reservoir area would have been important for hunting and resource extraction. Most of the sites found would have served as short-term campsites or for specialized occupations like stone tool manufacture. Some sites were inhabited more than once. No residential bases have been found.

The information at present indicates that longer term occupations of the Plains Woodland and Plains Village Tribes were elsewhere. The sites here reveal how people lived away from their horticultural villages. Nomadic Tribes with horses also made use of the same resources as their more sedentary neighbors. Based on historical, archaeological, and ethnographic evidence for the last several hundred years, Mandan, Hidatsa, and later Arikara, and Dakota, Lakota, and Yanktonai Sioux were seasonal and nomadic occupants along the Heart River. Other Tribes may have traveled through occasionally as well (United States Geological Survey 1978; Schneider 2002).

In the early 1900's the grasslands, river, and proximity to the railroad encouraged historic settlement. Although most of the sites located within Reclamation lands have been prehistoric, there are a few historic sites. One of them was a store/post office named Worms for the German city by that name, but the others were all homesteads for farmers and ranchers. All are in various stages of disrepair (Wick 1988).

3.2.3 PROPERTIES OF TRADITIONAL RELIGIOUS AND CULTURAL IMPORTANCE TO NATIVE AMERICANS

In 1992 the NHPA was amended to address the concerns of Native Americans regarding sites that have religious or cultural importance. The common term for such sites is Traditional Cultural Properties (TCPs). Such sites often differ from other cultural resource sites because they may often lack material remains such as artifacts or they may be of recent origin.

Such sites often can only be identified through interviews of tribal elders and keepers of traditional knowledge. Other sources of information are the accounts of explorers and traders and the research of historians, ethnographers, and anthropologists. Some tribal members may differentiate between *traditional* sacred sites and *contemporary* sacred sites to distinguish

between areas of *historical use* and those of *current use*. NHPA does not recognize this distinction.

Heart Butte located to the north of Reclamation's project lands around the Heart River qualifies as a TCP. According to Mandan tradition as reported to Bowers in 1950 by Scattercorn, a female Mandan priest, the creator Lone Man named Heart Butte and called it the heart, or center, of the world. In addition, Plochman (et al. 1982) reports that an informant described a turtle rock effigy for HRA that was destroyed by highway construction about 1 mile north of the dam. Toom (et al. 1999) states that such forms can be attributable to the Hidatsa tradition. No TCPs are known to exist within Reclamation's project lands. Elgin Crows Breast, the Cultural Preservation Officer for the Three Affiliated Tribes, works with Reclamation on cultural issues at this reservoir.



Camping at Lake Tschida

3.3 RECREATION RESOURCES

3.3.1 FACILITIES

Recreation lands (224.4 acres) at Heart Butte Reservoir are managed by Reclamation. In that 224.4 acres there are nine recreation areas that provide opportunities for camping, fishing, swimming, picnicking, and hiking. All recreation areas are primitive in nature providing no shower facilities or electric campsites. All four major recreation areas (Rimrock, Downstream, Crappie Creek, and Schatzs Point) have picnic shelters and universally-accessible facilities. There are vault toilets, picnic tables, fire rings, and potable water is available at four of the recreation areas. There is a RV dump station at Rimrock and a nice overlook that gives a great view of the reservoir. The public may use the recreation resources without charge.

More detailed description of facilities is available in the respective management unit description.

3.3.2 CABIN AND TRAILER AREAS

Cabin Area 1 consists of 19 developed cabin sites.

Cabin Area 2 consists of 29 developed cabin sites.

Cabin Area 3 consists of 52 developed cabin sites

Cabin Area 4 consists of 10 developed cabin sites.

Trailer Area 1 consists of 38 trailer sites.

Trailer Area 2 consists of 43 trailer sites.

South Side Trailer Area consists of 32 trailer sites.

Further description in section 4.7.1

3.3.3 GROUP USE AREAS

Prairie Learning Center

Boy Scouts of America Camp

Carson Wildlife Club

Elgin Lions Club

North Dakota Farmers Union Camp

New Leipzig Town & Country Booster Club

Further description in section 4.7.2

3.3.4 CONCESSION

North Shore Concession: This area has a boat ramp, dock, and vault toilet. It also has a full service fish cleaning table with electric and water services. The concession provides fuel with a courtesy boat dock for fueling. Bait and some fishing tackle are available. The concession provides a limited variety of food, drinks, and other sundry items. The concession meets all ADA requirements.

Marina boat/pontoon mooring is allowed by permit in the bay east of the concession at the concessionaire's discretion.

SECTION 4 RESOURCES ANALYSIS

4.1 LAND USE SUITABILITY AND CAPABILITY

Historic land uses have been primarily agricultural. Livestock grazing, haying, and farming small grains and row crops are the dominant uses. Development of recreation and other facilities has been limited by two major factors--slope and soil type. The slope and soil types vary throughout the management area. These subjects are summarized in Section 3.1.1 Geology/Paleontology and Section 3.1.3 Soils, respectively.

A map of soil type is included in appendix H and a map of slopes is included in appendix G.

Development is also restricted by the elevation of the flood pool and authority (4.2). A map of the flood pool elevation is in appendix E.

4.2 CONSTRAINTS TO RECREATION DEVELOPMENT AND MANAGEMENT

Development and management of Heart Butte Reservoir is constrained primarily by absence of a management partner. Therefore, Reclamation is restricted to providing only minimum basic facilities for health and safety reasons as described in P.L. 8972 (section 1.1.1 for definition of minimum basic facilities).

Ongoing efforts are being made to identify a managing partner, however, until that goal is realized, new development will be limited to conform to the current regulations.

4.3 AREAS OF SPECIAL INTEREST

4.3.1 INDIAN TRUST ASSETS

Indian Trust Assets (ITAs) are defined as “legal interests in property held in trust by the United States for Indian tribes or individuals.” This definition is contained in a policy directive on ITAs issued by the Commissioner of the Bureau of Reclamation on July 2, 1993. Examples of ITAs include lands, minerals, timber, hunting and fishing rights, water rights, and in stream flows. This definition parallels that for “trust resources” in the implementing regulations for the Indian Self-Determination and Education Assistance Act, 25 CFR Part 900.6:

Trust resources means an interest in land, water, minerals, funds, or other assets or property which is held by the United States in trust for an Indian Tribe or an individual Indian or which is held by an Indian Tribe or Indian subject to a restriction on alienation imposed by the United States.

Knowledge of which Tribes used the Heart River is restricted to historical and archaeological evidence starting about 300 years ago. The United States Geological Survey (Survey) historical Land Claims map based on determinations of the Indian Claims Commission shows Arikara, Mandan and Hidatsa on the north side of the Heart River and Dakota Sioux on the south side

(USGS 1978). Schneider's overview adds the Lakota and Yanktonai Sioux as inhabitants after the 1820s (Schneider 2002).

Presently, members of the Three Affiliated Tribes (Arikara, Mandan, and Hidatsa) reside on the Fort Berthold Reservation to the north of the reservoir. Members of the Sioux Tribes live at the Spirit Lake Nation to the northeast and Standing Rock Reservation to the southeast.

No ITAs have been identified within Reclamation's Heart Butte Reservoir lands.

4.4 RECREATION NEEDS AND DEMANDS

DKAO conducted a survey of recreational visitors in the summers of 2004 and 2005. The public most commonly indicated a need for restroom/shower facilities, electrical campsites, and playground equipment. Other notables were more fish cleaning stations, hiking and biking trail, potable water hook ups, and reserved shelters.

Most of the respondents wanted these facilities at the four major recreation areas (Rimrock, Downstream, Schatzs Point, and Crappie Creek).

Reclamation does not have the authority to develop the facilities requested by the public. DKAO has authorization to provide "minimum basic facilities." Minimum basic facilities are defined as those required for public health and safety, stating "that proper expenditures when protecting or preserving federal property and the public would also include boat ramps, picnic tables, beach areas, sanitation facilities, and parking areas." Reclamation could cost-share 50 percent of the development cost of the recreational facilities requested by the public with a managing partner; however, no managing partner has been identified.

4.4.1 ANTICIPATED VISITATION

Visitor use hours at Heart Butte Reservoir have nearly doubled from 1982, when traffic counts were first started, until present. Reservoir visitors spent approximately 1.4 million use-hours in the campgrounds and 4.6 million use-hours in the cabin and trailer areas during 2006. Visitor use-hours have declined since 2003 when visitors spent 1.8 million use-hours in the campgrounds and 5.5 million-use hours in the cabin and trailer areas. It is anticipated that unless major changes occur visitation to the reservoir will remain fairly stable.

4.5 FISH AND WILDLIFE DEVELOPMENT

4.5.1 MULTIPLE RESOURCES MANAGEMENT

Heart Butte has 6,575 upland acres managed for multiple resources. Reclamation will strive to improve the vegetation and water quality in the Heart Butte area to enhance fish and wildlife needs. Native grass pasture makes up the majority of these acres. Beginning in 2006, pastures will be rotationally grazed to promote plant vigor and health and to allow annual regrowth to provide wildlife cover. This grazing system should also allow woody draws to rejuvenate and regenerate, providing additional cover and food for wildlife. Some areas deemed "environmentally sensitive" may only receive grazing treatments once every several years.

Annual monitoring of the pastures will be performed and adjustments will be implemented if necessary.

An example copy of a grazing permit is attached as appendix F.

4.5.2 TREE PLANTINGS

Tree plantings were established back in the 1950s by NDGF. These plantings are becoming old and many of the trees are dead or dying. Reclamation adopted practices to address this natural deterioration of woody cover and mature trees. These practices are outlined in the specific management units.

4.5.3 FOODPLOTS

Numerous food plots have been established in the wildlife areas, most are being cropped by local cooperators leaving 30 percent for wildlife use. These food plots would be better utilized to establish additional trees to provide winter wildlife cover and establish a smaller food plot that could be left in its entirety. Smaller food plots could be planted by Reclamation staff or a cooperator in exchange for haying acreage rather than sharing the crop with the cooperator.

A copy of an agreement for food plots is attached (appendix F).

4.5.4 HAYING

750 acres of idle grasslands also exist and will be hayed approximately once every 4 years to rejuvenate the grass stands. An example of a haying agreement is attached (appendix F).

4.5.5 NOXIOUS WEEDS

Noxious weeds (leafy spurge, wormwood, Canada thistle) currently infest approximately 1,800 acres. Annual spraying and use of biological agents are being used and will continue to be used in the future to control these infestations. The use of flea beetles on leafy spurge was introduced in 1991. They have reduced the densities of the weed and allowed spraying operations to be concentrated on preventing the spread to non-infested areas. Canada thistle is an increasing problem and will require additional control methods in the future. A single salt cedar tree was discovered in 2003 and eradicated. Shoreline searches are performed annually in an attempt to locate and eradicate any salt cedar plants before they become established.

The Integrated Pest Management Plan for Heart Butte Reservoir lands is attached (appendix F).

4.5.6 FISHERIES

Fisheries management of Lake Tschida is performed by NDGF (3.1.8 Fisheries).

4.6 OTHER LAND USES

4.6.1 CABIN AND TRAILER SITES

Currently, three trailer and four cabin areas are located along the shoreline of Heart Butte Reservoir. The trailer areas consist of 114 lots and cover approximately 50 acres; the cabin areas contain 110 lots and cover approximately 150 acres. Permits may be renewed every 5 years as long as they adhere to permit rules and requirements. Following Reclamation approval permits may be transferred to another party upon purchase of the trailer or cabin. The lot remains the property of the United States Government and may not be sold or bartered. These cabin and trailer lots are seasonal, to be occupied between April 1 and October 31 of each year.

HEALTH AND SAFETY CONCERNS AT CABIN SITES

Regulation of many health and safety concerns at cabin and trailer sites are covered in the special use permit. Boat docks, stairways, and general site safety are subject to inspection by Reclamation staff. Septic systems are regulated by the Custer District Health Department.

4.6.2 GROUP USE AREAS

Six group-use areas have been established at Heart Butte. These areas provide recreational opportunities for organizational group activities. The six organizations currently holding these permits are Northern Lights Council of the Boy Scouts of America, Carson Wildlife Club, Elgin Lions Club, New Leipzig Town and Country Boosters Club, and ND Farmers Union and Prairie Learning Center. Group-use area permits are renewed on a 5-year basis and are not transferable.

4.6.3 LAND USE AUTHORIZATIONS AND LAND DISPOSAL

LAND USE AUTHORIZATIONS

Land-use authorizations include easements, leases, licenses, and permits which allow others to use Reclamation lands, facilities, and water surfaces. Land-use authorizations are discretionary and must conform to the requirements contained in 43 CFR 429 and Reclamation Directives and Standards for Land Use Authorizations (LND 08-01). Issuance of land use authorizations require that Reclamation collect administrative fees and receive fair market value for the use of its lands.

Land use authorizations would not be issued:

- 1) When it is determined that the proposed use is incompatible with authorized project purposes
- 2) Where the proposed use poses health and safety concern
- 3) Results in unacceptable impacts to the environment, results in private exclusive use,
- 4) Violates State, federal, or local laws, regulations, ordinances, or zoning requirements,
- 5) Jeopardizes the interests of the United States
- 6) Is an existing unauthorized use

- 7) Use will result in other adverse and unacceptable impacts
- 8) Where other alternatives are available.

If a use authorization is granted, it is the policy of Reclamation to grant the least estate possible necessary to accommodate the intended use. Generally, this means that Reclamation will only issue a permit or a license, and will not issue leases or easements or other contractual documents that convey an interest in real property.

Reclamation will not issue any land-use authorizations for roads, telecommunication sites, microwave towers, transmission lines, and linear facilities, or uses that do not clearly compliment the goals and recommendations contained in this plan. When permitted, Reclamation would require that electrical utilities be buried, or if constructed above ground they would be constructed and permitted only if they do not interfere with the visual and aesthetic components of the landscape. All above ground utilities would provide measures of safety for the public and for wildlife species. All land use authorizations would be considered on a case-by-case basis and issued at the sole discretion of Reclamation.

The descriptions of land use authorizations are defined in the individual contracts or agreements. Specific locations of these land use authorizations can be found on the map attached in appendix I.

LAND DISPOSAL

All reservoir lands are currently needed for project purposes and are not available for disposal through sale, lease, or transfer to any other person, agency, or entity. In the event that any reservoir lands are determined by Reclamation to be excess to project needs, Reclamation would follow standard General Service Administration procedures to dispose of the lands. This process requires that any excess lands be offered to other federal or state agencies first, then to local counties or municipalities, and last through sale at public auction to the highest bidder. In the absence of enabling legislation, and until such time as the land is no longer needed for these authorized project purposes, they cannot be disposed of or transferred out of federal ownership.

4.6.4 NO NEW EXCLUSIVE USE

Exclusive use is any use that excludes other appropriate public recreation use or users for extended periods of time. Exclusive use includes, but is not limited to, boat docks, cabins, trailers, manufactured or mobile homes, structures, roads, or other amenities that are determined by Reclamation to be exclusive use. Reclamation's Recreation Management Policy (LND P04) state "Prohibit new exclusive uses and eliminate existing exclusive uses, as allowed by current use agreements, to maximize public recreation opportunities, facilities, and services. Any new use, facility, service or site determined by Reclamation to be exclusive use shall not be allowed."

4.7 DETERMINATION OF FACILITY REQUIREMENTS

4.7.1 ADA ACCESSIBILITY

Heart Butte facilities were recently audited for accessibility. Most of the facilities comply with the minimum ADA Accessibility Guidelines. A list of the facilities and their compliance is included as appendix M.

All areas of newly designed or newly constructed buildings and facilities and altered portions of existing buildings and facilities shall comply with the minimum requirements of the “ADA Accessibility Guidelines for Buildings and Facilities (ADAAG).”

4.8 ENVIRONMENTAL IMPACTS

This RMP is an effort to document current management practices. Any new or substantive changes will be addressed through the NEPA process, at which time any environmental impacts will be addressed.

No environmental impacts are expected due to the implementation of the RMP.

4.9 LAND USE ISSUES

4.9.1 OFF ROAD VEHICLES

The operation and use of off-road vehicles (snowmobiles, 4-wheelers, etc.) on Heart Butte Reservoir lands is prohibited with the following exceptions:

1. Off road vehicles may be used by government employees in conjunction with performance of their official duties.
2. Off road vehicles may be operated on gravel roads if properly licensed and equipped according to North Dakota century code 39-20.
3. Off road vehicles may be operated on the lake only when winter ice conditions permit, in conjunction with ice-fishing activities.
4. Off road vehicles may be used by grazing permit holders to move cattle and check fence.

4.9.2 ACCESS

Access to public lands at Heart Butte is restricted by the condition of existing roads and the slope of the terrain. Many of the lands, especially in the western management units, are only accessible by foot.

Access across public lands will not be granted to benefit private interests.

4.9.3 OIL, GAS, AND MINERAL EXPLORATION

Consumer demands for oil, gas, and other mineral resources are likely to increase in the future. As a result, it is possible there may be requests from the oil and gas industry to explore and/ or develop available minerals within the Heart Butte RMP area. Requests to lease federal oil and gas resources are administered by the Bureau of Land Management in coordination with the surface management agency. Reclamation normally consents to oil and gas leasing on its lands unless it would interfere with or adversely affect authorized project purposes. In cases where Reclamation's consent is given, Reclamation requires that the lessee adhere to its GP-135 Special Stipulations and Form 3109-1 Lease Stipulations. These stipulations are provided to Bureau of Land Management in advance of their approval of the oil and gas lease.

Pursuant to Section 10 of the August 4, 1939, Reclamation Project Act (53 Stat. 1187) Reclamation has authority to administer project sand and gravel mineral resources, and may issue permits for removal of these resources, at its sole discretion.

4.10 ECONOMIC ANALYSIS

The RMP is only a documentation of current management practices. Existing practices are not being significantly changed. Therefore, no significant change to the current economic trend is expected to be caused by the implementation of the RMP.

4.11 SURROUNDING LAND OWNERSHIP AND LAND USE

Land surrounding the Heart Butte management units is privately owned. It is primarily used for agricultural purposes such as livestock grazing, hay land, farming of small grains and row crops, and Conservation Reserve Program. There is one area bordering the south western management units that is owned by a private hunting club. There are two private cabin areas--the Corey Roth development and the Kitzan development--bordering the north side of the reservoir lands.

Surrounding lands do not have any impact on the decisions to manage Reclamation's lands. Reclamation has no obligation to manage public lands in the interest of adjoining landowners, unless it supports the interests of the general public and is in the scope of Reclamation's mission.

A map showing ownership of adjacent lands is attached as appendix J.

4.12 OTHER STUDIES

In the past there have been different studies conducted at Heart Butte Reservoir. Two recent studies are the Reclamation Reservoir Study, a water quality study, and an Archeological Excavation at the Beadmaker site. Currently, no Reclamation studies are underway at Heart Butte.

The North Dakota State Health Department does periodic water quality monitoring on Lake Tschida as well as monitoring the water quality above and below the reservoir. Sampling is accomplished every 5 to 10 years. The reservoir was last sampled in 2000 to 2001. The report from that study is attached as appendix L. A new round of sampling is forth coming.

SECTION 5 DESIGNATIONS OF LAND USES

The RMP describes the present operations of 39 management units identified within 5 land resource codes. The five land resource codes include:

- (01) - Project operation
- (02) - Recreation
- (03) - Multiple resource management
- (04) - Group use and
- (05) – Cabins and trailers.

5.1 OPERATION UNITS

There are two units managed as Operations Units at Heart Butte. Operations units are primarily used in operations of the reservoir. The Operations Units are:

- MU 001 Dam
- MU 002 Headquarters

Specific descriptions of the units, the 5-year management plan, and the long-term plan are included in section 6.

5.2 MULTIPLE USE UNITS

There are 17 units managed as Multiple Use Units at Heart Butte. Multiple Use Units are managed for wildlife and recreational purposes. The units included as Multiple Use Units are:

- MU 003 East of Headquarters
- MU 005 Adjacent to Rimrock Recreation and Boy Scout Camp
- MU 011 Cross Roads Wildlife Area
- MU 016 Schatzs Creek Wildlife Area
- MU 017 New Leipzig Wildlife Area
- MU 020 Ackerman Wildlife Area
- MU 021 Willow Bottoms Wildlife Area
- MU 022 Verworn South Wildlife Area
- MU 023 Verworn North Wildlife Area
- MU 024 Far West Wildlife Area
- MU 025 Eagle Bluffs Wildlife Area
- MU 026 Shelles Wildlife Area
- MU 028 Rattlesnake Bluffs Wildlife Area
- MU 031 Crappie Creek Wildlife Area
- MU 033 Swift Wildlife Area
- MU 035 North Trailers Wildlife Area
- MU 037 Downstream Wildlife Area

Specific descriptions of the units, the 5 year management plan, and the long-term plan are included in section 7.

5.3 RECREATION UNITS

There are nine units managed as Recreational Units at Heart Butte. Recreational Units are managed specifically for recreational opportunities for the general public. The units included as Recreation Units are:

MU 004	Rimrock Recreation Area
MU 013	Hawebesi(Includes SSTA public area) Recreation Area
MU 015	Schatzs Point Recreation Area
MU 027	Koehlers Point Recreation Area
MU 029	Rattlesnake Point Recreation Area
MU 030	Crappie Creek Recreation Area
MU 036	Northshore Concession Area
MU 038	Downstream Recreation Area
MU 039	Lake Tschida

Specific descriptions of the units, the 5 year management plan, and the long-term plan are included in section 8.

5.4 GROUP USE UNITS

There are six Group Use Units at Heart Butte. These areas provide recreational opportunities for organizational group activities. The permits are renewed on a five year basis and are not transferable. The Group Use Units are:

MU 006	Boy Scouts Area
MU 007	Carson Wildlife Club
MU 008	Elgin Lions Club
MU 010	Farmers Union Camp
MU 012	Prairie Learning Center
MU 018	New Leipzig Town and Country Booster Club

Specific descriptions of the units, the 5-year management plan, and the long-term plan are included in section 9.

5.5 CABIN AND TRAILER SITE UNITS

There are five units managed as cabin and trailer site units at Heart Butte. Included in the units are the three trailer areas and four cabin areas located along the shoreline of Heart Butte Reservoir. The trailer areas contain 114 lots and cover approximately 50 acres, while the cabin areas contain 110 lots and cover approximately 200 acres. Permit holders are allowed to renew their lot permit every 5 years as long as they adhere to permit rules and requirements. Permits may be transferred to another upon purchase of the trailer or cabin, the lot itself is the property of the United States Government and may not be sold or bartered. These cabin and trailer lots are considered seasonal and may only be occupied between April 1 and October 31 of each year. The units included as cabin site units are:

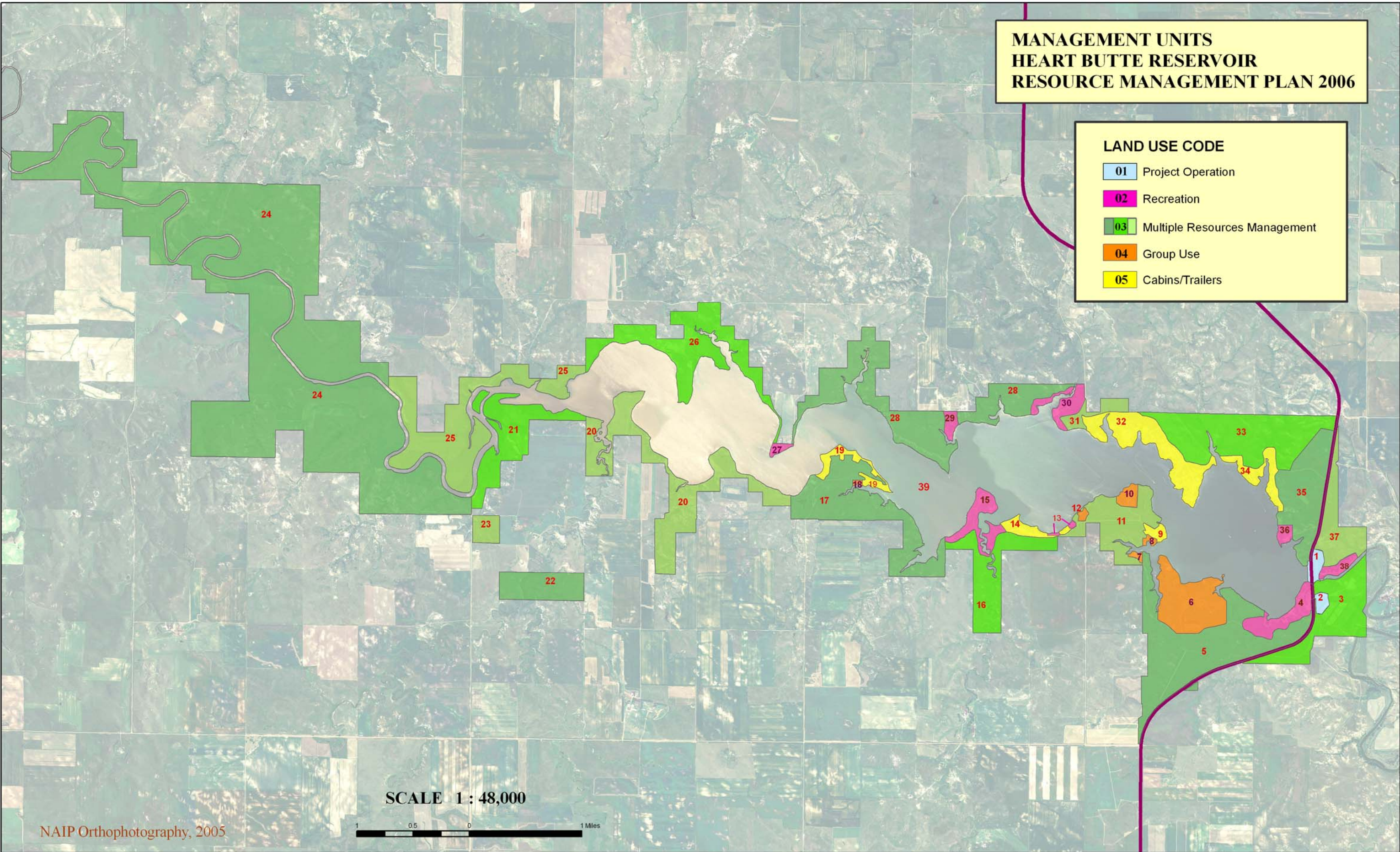
MU 009	Cabin Area 4
MU 014	South Side Trailer Area
MU 019	Cabin Area 1
MU 032	Cabin Areas 2 & 3
MU 034	Trailer Areas 1 & 2

Specific descriptions of the units, the 5-year management plan, and the long-term plan are included in section 10.

**MANAGEMENT UNITS
HEART BUTTE RESERVOIR
RESOURCE MANAGEMENT PLAN 2006**

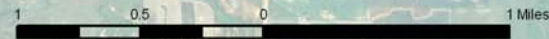
LAND USE CODE

01	Project Operation
02	Recreation
03	Multiple Resources Management
04	Group Use
05	Cabins/Trailers



NAIP Orthophotography, 2005

SCALE 1 : 48,000



SECTION 6 OPERATION UNITS MANAGEMENT AND DEVELOPMENT

MU 001 Dam
MU 002 Headquarters

Environmental Commitments

Project revisions and project concepts that differ from those already considered under this Management Unit Packet will be considered under separate NEPA and NHPA compliance. Heart Butte Reservoir Manager must consult with DKAO Resources Division staff prior to altering approved project plans or amending approved project plans with additional project elements. Projects described in this Management Unit Packet that have not been considered under the Categorical Exclusion Checklist – DK600-06-58 or have been conceived following the completion of the Heart Butte RMP will be considered under separate NEPA analysis.

MU 001 Dam

Management Unit Number(MU): 001

Land Use Codes: 01

Dam

1.1 Goal

To provide flood control and water for irrigation as the primary purpose. Secondary benefits include recreation and fish and wildlife.

1.2 Location

The Dam is located at the crossing of Highway 49 and the Heart River. 21.4 acres in Section 13 of T.136 N., R. 89 W. See map in appendix for exact location.

1.3 Recreation and Use

No recreation or public use is allowed in this management unit.

1.4 Vegetation

No unique vegetation. See general vegetation description in section 3.1.5.

1.5 Facilities Inventory

The MU facilities include the earthen dam, control house, well house, piezometer pit, glory hole and the spillway. Eight functioning observation wells and four seepage weirs are also located along the sides and below the dam.

1.6 Historical Background

Construction of the dam was started in 1948 and was completed in 1949.

RMP Five Year Plan

MU 001 (Dam)

2007

Denver staff to check piezometer pit gauges and lines – make determination to abandon non-functioning lines and replace gauges.

2008-2011

No non-routine activities are planned.

Long range planning

No non-routine activities are planned.



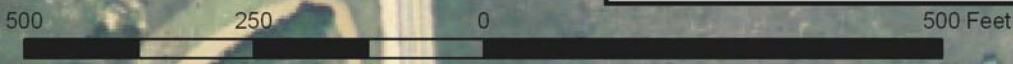
21.4 acres

13

001

NAIP Orthophotography, 2005

SCALE 1: 2,400



MANAGEMENT UNIT 001
DAM
LAND USE CODE 01
HEART BUTTE RESERVOIR
RESOURCE MANAGEMENT PLAN 2006

MU 002 Headquarters

Management Unit Number(MU): 002
Headquarters

Land Use Codes: 01

1.1 Goal

To operate and maintain the headquarters to support the management of the Heart Butte Reservoir and the surrounding area.

1.2 Location

The headquarters is located southeast of the dam.
12.4 acres in Section 13 of T. 136 N., R. 89 W.
See map in appendix for exact location.

1.3 Recreation and Use

No recreation or public use is allowed in this management unit.

1.4 Vegetation

No unique vegetation. See general vegetation description in section 3.1.5.

1.5 Facilities Inventory

The headquarters include:

- Housing for the Facility Manager,
- a shop,
- fuel storage,
- and several buildings for equipment and supplies storage.

1.6 Historical Background

Many of the small storage buildings were constructed by the Young Adults Conservation Corp (YACC) in the late 1970's.

The facility manager residence was built in 1980.

The shop was built in 1982.

The large pole barn was moved to its current site in 1986.

RMP Five Year Plan

MU 002 (HQ)

2007

Install electrical lights and outlets in Quonset and JD shed.
Install two garage door openers in Quonset building.
Construct shop addition walls and roof.

2008

Work on shop addition interior.

2009

Complete shop addition.

2010-2011

No non-routine activities are planned.

Long range planning

Replace kitchen cabinets in house



SECTION 7 MULTIPLE USE UNITS MANAGEMENT AND DEVELOPMENT

MU 003	East of Headquarters
MU 005	Adjacent to Rimrock Recreation and Boy Scout Camp
MU 011	Cross Roads Wildlife Area
MU 016	Schatzs Creek Wildlife Area
MU 017	New Leipzig Wildlife Area
MU 020	Ackerman Wildlife Area
MU 021	Willow Bottoms Wildlife Area
MU 022	Verworn South Wildlife Area
MU 023	Verworn North Wildlife Area
MU 024	Far West Wildlife Area
MU 025	Eagle Bluffs Wildlife Area
MU 026	Shelles Wildlife Area
MU 028	Rattlesnake Bluffs Wildlife Area
MU 031	Crappie Creek Wildlife Area
MU 033	Swift Wildlife Area
MU 035	North Trailers Wildlife Area
MU 037	Downstream Wildlife Area

Environmental Commitments

Project revisions and project concepts that differ from those already considered under this Management Unit Packet will be considered under separate NEPA and NHPA compliance. Heart Butte Reservoir Manager must consult with DKAO Resources Division staff prior to altering approved project plans or amending approved project plans with additional project elements. Projects described in this Management Unit Packet that have not been considered under the Categorical Exclusion Checklist – DK600-06-58 or have been conceived following the completion of the Heart Butte RMP will be considered under separate NEPA analysis.

MU 003 East of Headquarters

Management Unit Number(MU): 003
East of Headquarters

Land Use Codes: 03

1.1 Goal

To manage the unit's land and vegetation to provide a diversity of wildlife and their associated habitat; this in turn provides public recreation opportunities.

1.2 Location

The area surrounds the headquarters located in the Southeast portion of the Reservoir public land boundary. 211.8 acres in Sections 13, 24 and 23 of T. 136 N., R. 89 W.
See map in appendix for exact location.

1.3 Recreation and Use

Recreation use centers on bird watching and hunting. Some areas are used for grazing, haying and as a gravel pit.

1.4 Vegetation

This MU contains managed food plots, planted tree rows, tame grass plantings and native grass pasture. Several wooded draws run down to the Heart River, which passes along the east edge of the unit. These draws contain bur oak, chokecherry, buffalo berry and other native tree species. Leafy spurge has infested much of this unit.

This management unit has been identified as containing Horizontal Juniper Shrubland and Needle-and-Thread Mixed Prairie by the Natural Heritage Database. This habitat is ranked as "Vulnerable" and "Imperiled", respectively, by the Nature Conservancy District.(See Section 3.1.7, page29).

1.5 Facilities Inventory

No additional facilities.

1.6 Historical Background

The MU has primarily been managed as a wildlife area. Food plot HB 11 is located on the MU. The southwest corner of the MU contains an area of tame grass which is occasionally hayed. The northeast portion of the MU contains native pasture which is managed as part of a grazing program. This pasture also includes a gravel pit, where various sized rock and gravel is piled and stored. Flea beetles have been introduced to help control leafy spurge.

RMP Five Year Plan

MU 003 (east of HQ)

2007

Continue food plot contract (crop-share)
Continue interim rotational grazing permit
Perform noxious weed control operations.

2008

Implement food plot planting for haying contract.
Implement new 5-year rotational grazing contract.
Perform noxious weed control operations.

2009-2011

No non-routine activities are planned.

Long range planning

Continue noxious weed control operations.
Continue the 5-year rotational grazing contract.
Continue the food plot planting for haying contract.



MU 005 Adjacent to Rimrock Recreation & Boy Scouts Areas

Management Unit Number(MU): 005
Adjacent to Rimrock Recreation &
Boy Scouts Areas

Classification: 03

1.1 Goal

To manage the unit's land and vegetation to provide a diversity of wildlife and their associated habitat; this in turn provides public recreation opportunities.

1.2 Location

The area encompasses the auxiliary spillway located in the southeast portion of the Reservoir public land boundary, bordered on the south by Highway 21.

459.3 acres in Sections 13, 14, 23 and 24 of T. 136 N., R. 89 W.

Refer to the map in the appendix for an exact location.

1.3 Recreation and Use

Recreation use centers on bird watching, hiking, and hunting. Most of the area is hayed on a rotational basis.

1.4 Vegetation

See general vegetation description in section 3.1.5.

Leafy spurge can be found in scattered areas throughout the unit.

This management unit has been identified as containing Horizontal Juniper Shrubland and Needle-and-Thread Mixed Prairie by the Natural Heritage Database. This habitat is ranked as "Vulnerable" and "Imperiled", respectively, by the Nature Conservancy District.(See Section 3.1.7, page 29).

1.5 Facilities inventory

The auxiliary spillway is in the south east portion of the unit.

1.6 Historical Background

MU is managed primarily as a wildlife area. Most of the MU has been hayed on an as needed basis to stimulate plant growth.

RMP Five Year Plan

Unit 005 (Adjacent to Rimrock Recreation & Boy Scouts Areas)

2007-2011

Continue the haying permit with local farmer that exchanges haying for planting wildlife food plots on public land.

Inspect Emergency spillway.

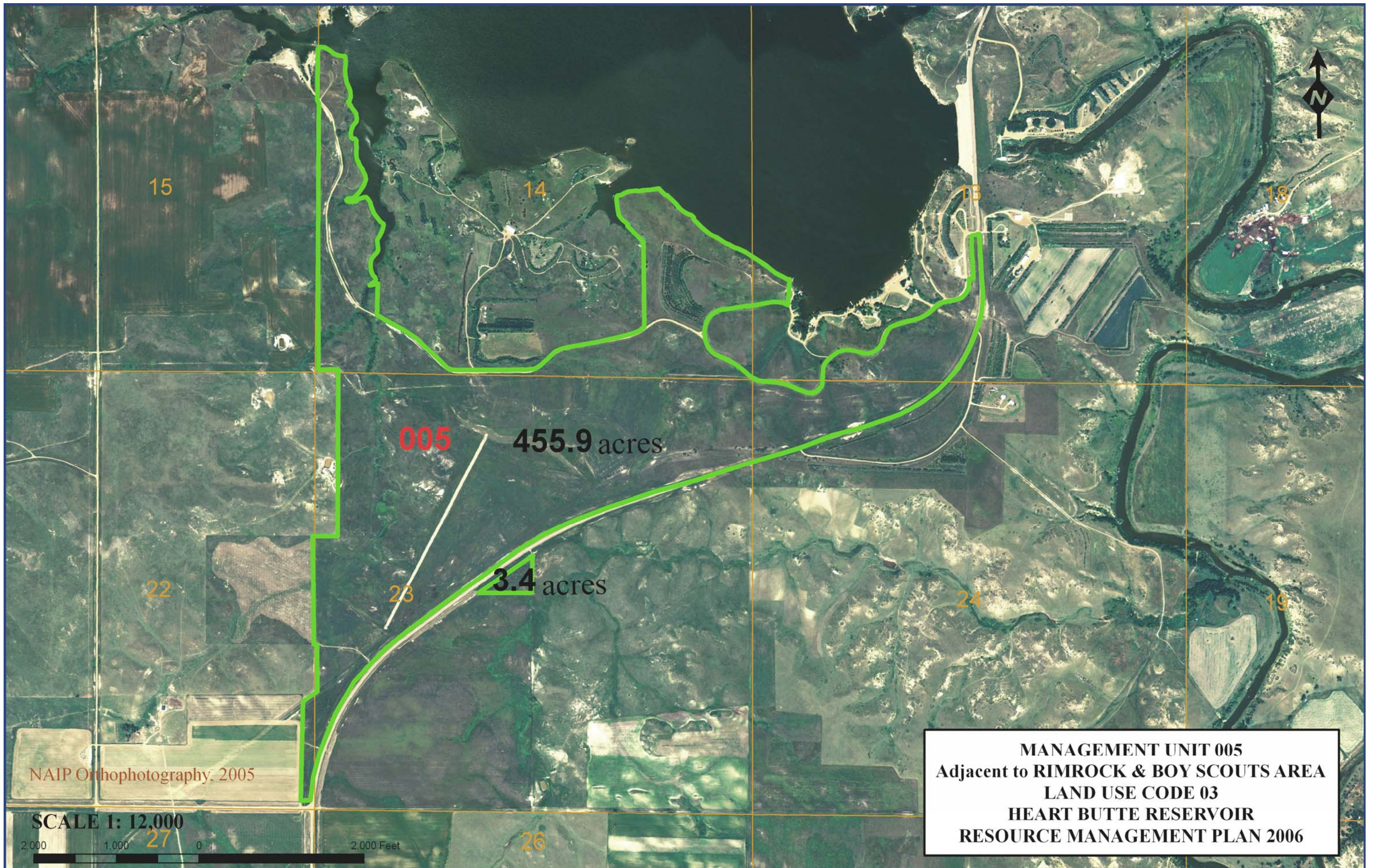
Monitor and control noxious weeds.

Long range planning

Continue the haying in exchange for planting wildlife food plots program.

Monitor and control noxious weeds.

Continue inspecting emergency spillway.



MU 011 Cross Roads Wildlife Area

Management Unit Number(MU): 011
Cross Roads Wildlife Area

Land Use Codes: 03

1.1 Goal

To manage the unit's land and vegetation to provide a diversity of wildlife and their associated habitat; this in turn provides public recreation opportunities.

1.2 Location

The 178-acre area is located in the northeast portion of Section 15, the southeast portion of Section 10, the southwest portion of Section 11 and the northwest portion of Section 14 in T. 136 N., R. 89 W. MU 011 is bordered on the north by Heart Butte Reservoir and MU 010, on the east by Heart Butte Reservoir and MU's 007, 008, and 009, on the west by Heart Butte Reservoir and MU's 012, 013, and 014, and on the south by private land. Refer to the map in the appendix for an exact location.

1.3 Recreation and Use

Recreation use centers on bird watching, hiking, shore fishing and hunting.

1.4 Vegetation

This MU contains tree plantings, food plots, tame grass plantings and native grasses.

This management unit has been identified as containing Horizontal Juniper Shrubland and Needle-and-Thread Mixed Prairie by the Natural Heritage Database. This habitat is ranked as "Vulnerable" and "Imperiled", respectively, by the Nature Conservancy District. (See Section 3.1.7, page29).

This management unit has been identified as containing Smooth Cliffbrake-fern by the Natural Heritage Database. This habitat is ranked "Apparently Secure" by the Nature Conservancy District. (See Section 3.1.7, page29).

1.5 Facilities Inventory

A public boat landing is located just east of MU 012.

1.6 Historical Background

The MU is managed primarily as a wildlife area. Three food plots have been planted under crop share contract. Haying of some grassland has occasionally been performed to rejuvenate grasses.

RMP Five Year Plan

MU 011 Cross Roads Wildlife Area

2007

Implement food plot for haying contract.
Plant 3.2 acres of new trees.
Seed 13 acres of former food plot to DNC grasses
Perform noxious weed control operations.

2008

Continue food plot for haying contract.
Hand-plant any trees where mortality occurred (EARTH Day).
Perform noxious weed control operations.

2009

Continue food plot for haying contract.
Perform noxious weed control operations.
Construct information kiosk at turn to Schatz's Point.

2010

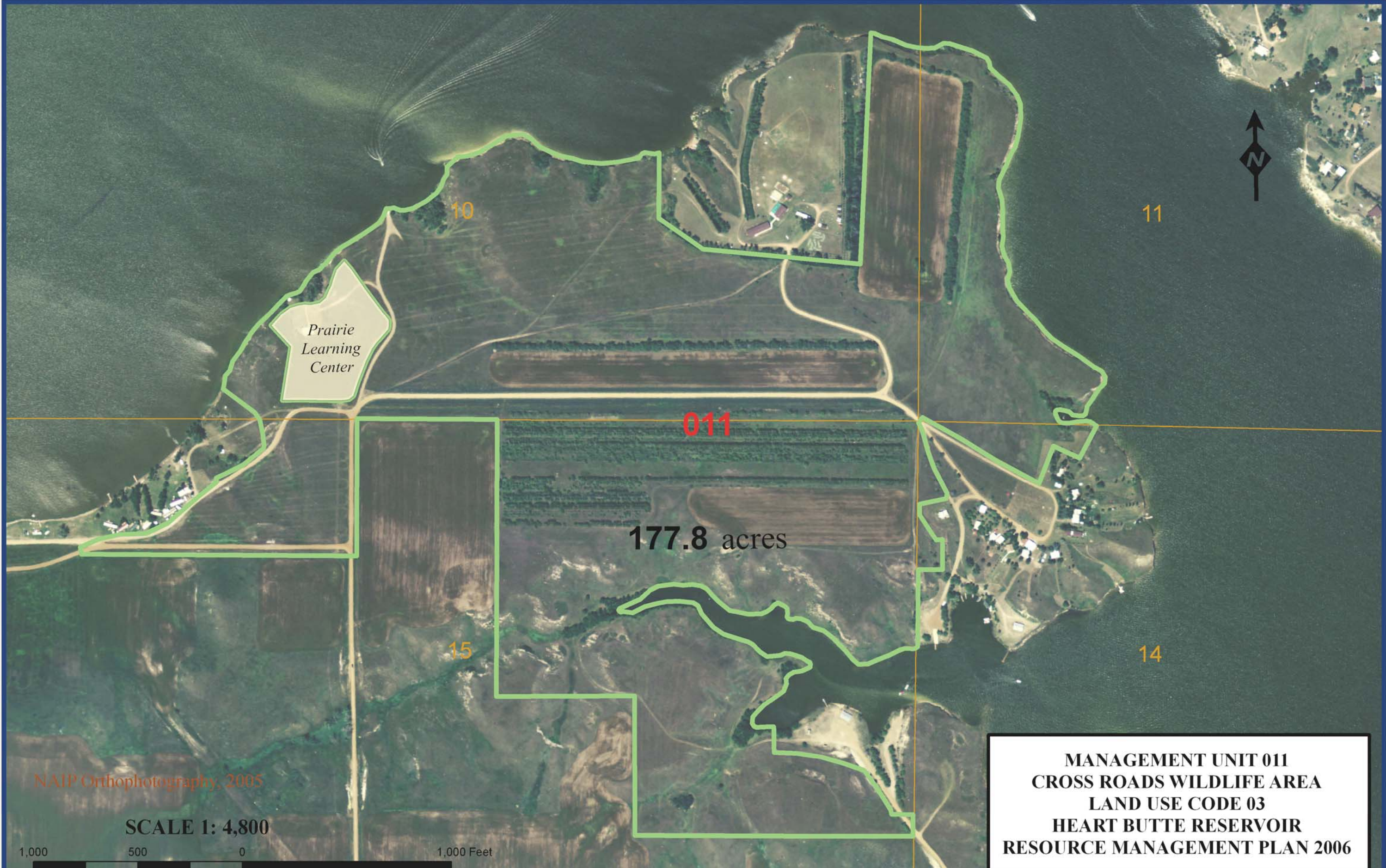
Continue food plot for haying contract.
Perform noxious weed control operations.
Update kiosk materials and maintain facility.

2011

Continue food plot for haying contract.
Perform noxious weed control operations.
Update kiosk materials and maintain facility

Long range planning

Continue food plot for haying contract.
Continue to perform noxious weed control operations.
Continue to update kiosk materials and maintain facility.
Continue haying idle grasslands every four years (hay for food plot contract).



**MANAGEMENT UNIT 011
CROSS ROADS WILDLIFE AREA
LAND USE CODE 03
HEART BUTTE RESERVOIR
RESOURCE MANAGEMENT PLAN 2006**

MU 016 Schatz's Creek Wildlife Area

Management Unit Number(MU): 016
Schatz's Creek Wildlife Area

Land Use Codes: 03

1.1 Goal

To manage the unit's land and vegetation to provide a diversity of wildlife and their associated habitat; this in turn provides public recreation opportunities.

1.2 Location

The 180-acre area is located in Section 16 in T. 136 N., R. 89 W. Refer to the map in the appendix for an exact location.

1.3 Recreation and Use

Recreation use centers on bird watching, hiking, and hunting.

1.4 Vegetation

Native pasture and idle tame grass fields.

See general vegetation description in section 3.1.5.

Leafy spurge can be found throughout the unit.

1.5 Facilities Inventory

A parking area with walk-thru is located where the road crosses Schatz's creek.

1.6 Historical Background

The MU is managed primarily as a wildlife area. The MU has a pasture which has been grazed in previous years, and mixed tame/native grasslands that have sat idle.

RMP Five Year Plan

MU 016

2007

Continue interim grazing permit

Implement the haying/grazing permit with local farmers that exchanges hay or grazing for developing wildlife food plots on public land.

Perform noxious weed control operations.

2008

Implement new 5-year rotational grazing contract.

Administer the haying/grazing permit with local farmers that exchanges hay or grazing for developing wildlife food plots on public land.

Perform noxious weed control operations.

2009-2011

Continue rotational grazing contract.

Continue haying for food plot contract (haying idle fields every 4 years).

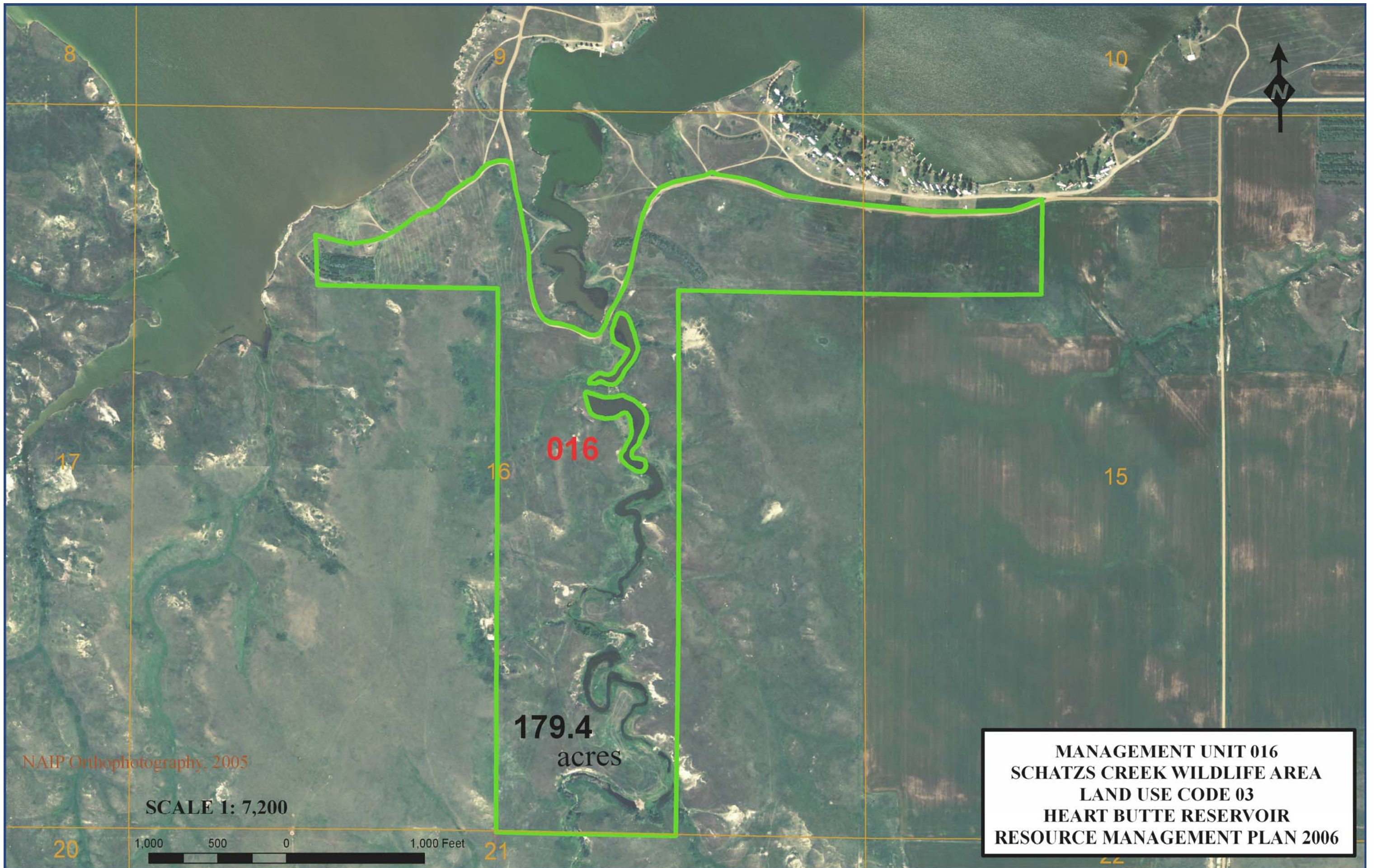
Continue noxious weed control operations.

Long range planning

Continue rotational grazing contract.

Continue haying for food plot contract (haying idle fields every 4 years).

Continue noxious weed control operations.



MU 017 New Leipzig Wildlife Area

Management Unit Number(MU): 017
New Leipzig Wildlife Area

Land Use Codes: 03

1.1 Goal

To manage the unit's land and vegetation to provide a diversity of wildlife and their associated habitat; this in turn provides public recreation opportunities.

1.2 Location

The 320-acre area is located in Sections 16, 17 and 8 in T. 136 N., R. 89 W. Refer to the map in the appendix for an exact location.

1.3 Recreation and Use

Recreation use centers on bird watching, hiking, and hunting.

1.4 Vegetation

Native pastures with idle mixed grass fields.

See general vegetation description in section 3.1.5.

Leafy spurge is found throughout the area.

1.5 Facilities Inventory

Two dikes with water control structures are located between the cabin area access road and the west boundary.

1.6 Historical Background

The MU is managed primarily as a wildlife area. The MU is managed as part of a haying/ grazing plan. In the past, the two ponds formed by the dikes were used as rearing ponds by the NDGFD.

RMP Five Year Plan

MU 017

2007

Continue interim rotational grazing permit.

Implement the haying/grazing permit with local farmers that exchanges hay or grazing for developing wildlife food plots on public land.

Perform noxious weed control operations.

2008

Implement new 5-year rotational grazing contract.

Perform noxious weed control operations.

2009-2011

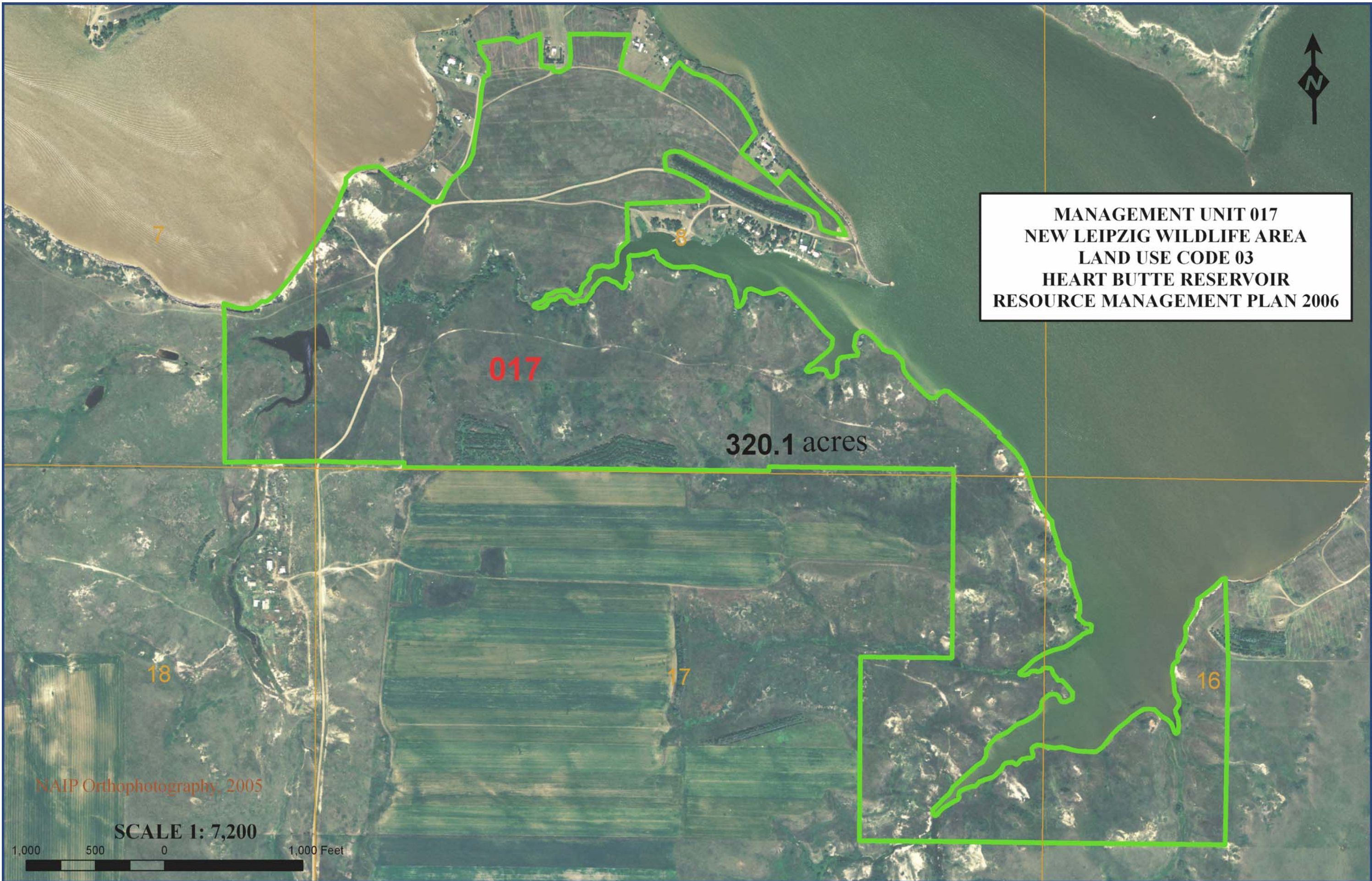
Continue rotational grazing permit and haying permit (hay idle fields every 4 years).

Continue noxious weed control operations.

Long range planning

Continue rotational grazing permit and haying permit (hay idle fields every 4 years).

Continue noxious weed control operations.



MU 020 Ackerman Wildlife Area

Management Unit Number(MU): 020
Ackerman Wildlife Area

Land Use Codes: 03

1.1 Goal

To manage the unit's land and vegetation to provide a diversity of wildlife and their associated habitat; this in turn provides public recreation opportunities.

1.2 Location

The 350-acre area is located in Sections 1, 12 and 13 in T. 136 N., R. 90 W. and Section 7, T. 136 N., R. 89 W. Refer to the map in the appendix for an exact location.

1.3 Recreation and Use

Recreation use centers on bird watching, hiking, and hunting.

1.4 Vegetation

Native grass pastures with wooded draws.

See general vegetation description in section 3.1.5.

Leafy spurge is found throughout the unit.

1.5 Facilities Inventory

No additional facilities.

1.6 Historical Background

The MU is managed primarily as a wildlife area. The MU has been grazed for many years and is now part of a rotational grazing management plan. Flea beetles have been introduced to help control leafy spurge.

RMP Five Year Plan

MU 020

2007

Continue interim rotational grazing permit.
Perform noxious weed control operations.

2008

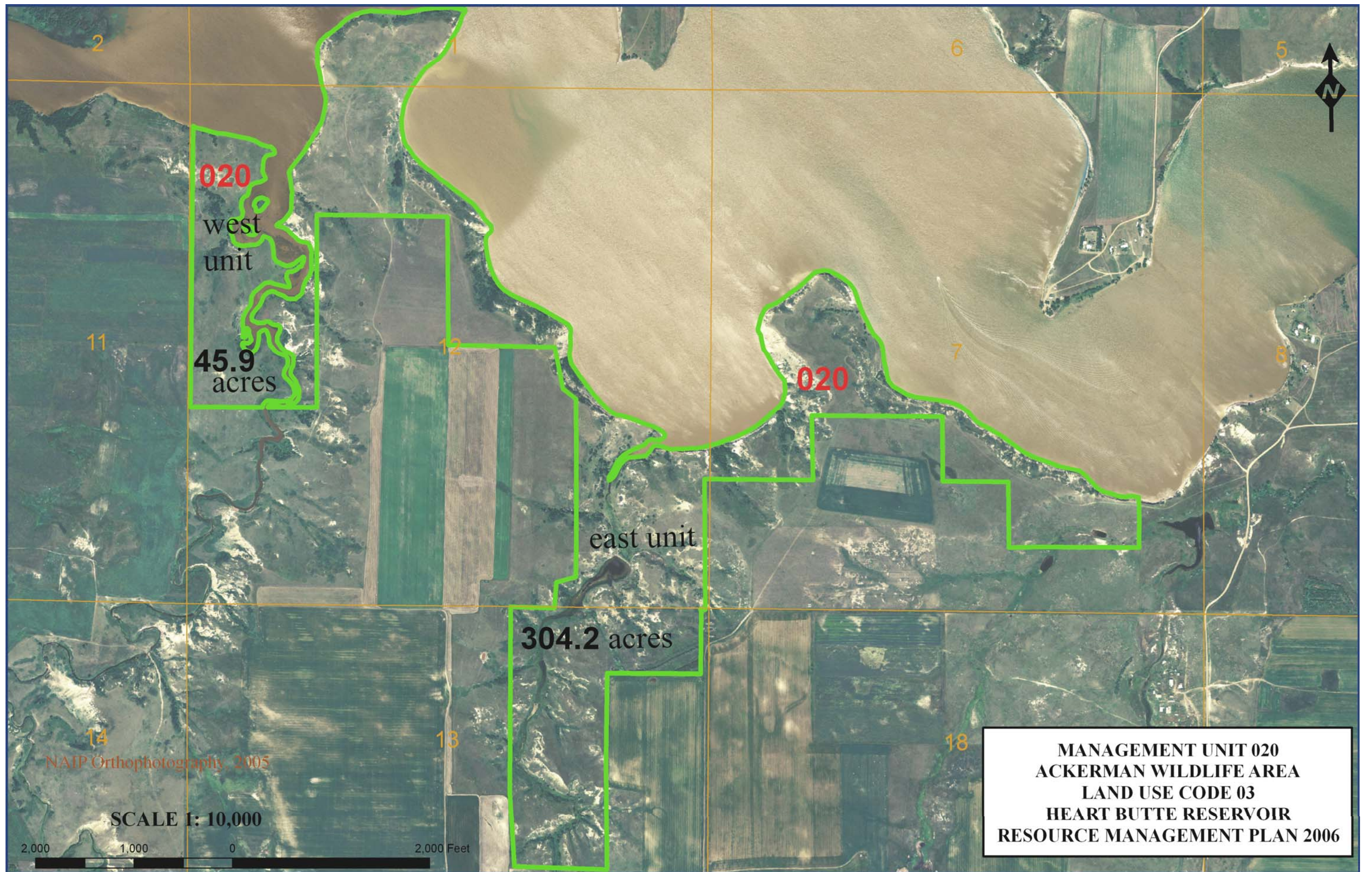
Implement new 5-year rotational grazing contract.
Perform noxious weed control operations.

2009-2011

Continue to perform noxious weed control operations.
Continue rotational grazing program.

Long range planning

Continue to perform noxious weed control operations.
Continue rotational grazing program.
Remove any un-necessary fence.



MU 021 Willow Bottoms Wildlife Area

Management Unit Number(MU): 021
Willow Bottoms Wildlife Area

Land Use Codes: 03

1.1 Goal

To manage the unit's land and vegetation to provide a diversity of wildlife and their associated habitat; this in turn provides public recreation opportunities.

1.2 Location

The 201.2-acre area is located in Sections 2 and 11 in T. 136 N., R. 90 W. Refer to the map in the appendix for an exact location.

1.3 Recreation and Use

Recreation use centers on bird watching, hiking, shore fishing and hunting.

1.4 Vegetation

This MU contains a significant amount of riparian habitat along river bottom and native grasses with several woody draws in the uplands.

Food plot HB-5 (13.5 acres) is also located on the tract.

Leafy Spurge is found throughout the unit.

1.5 Facilities Inventory

No additional facilities.

1.6 Historical Background

The MU is managed primarily as a wildlife area. The MU has occasionally been grazed. The food plot has set idle for several years but is now being planted and left in its entirety by a local landowner. Flea beetles have been introduced to control leafy spurge.

RMP Five Year Plan

MU 021

2007

Perform noxious weed control operations.
Cooperator will plant food plot for wildlife.

2008

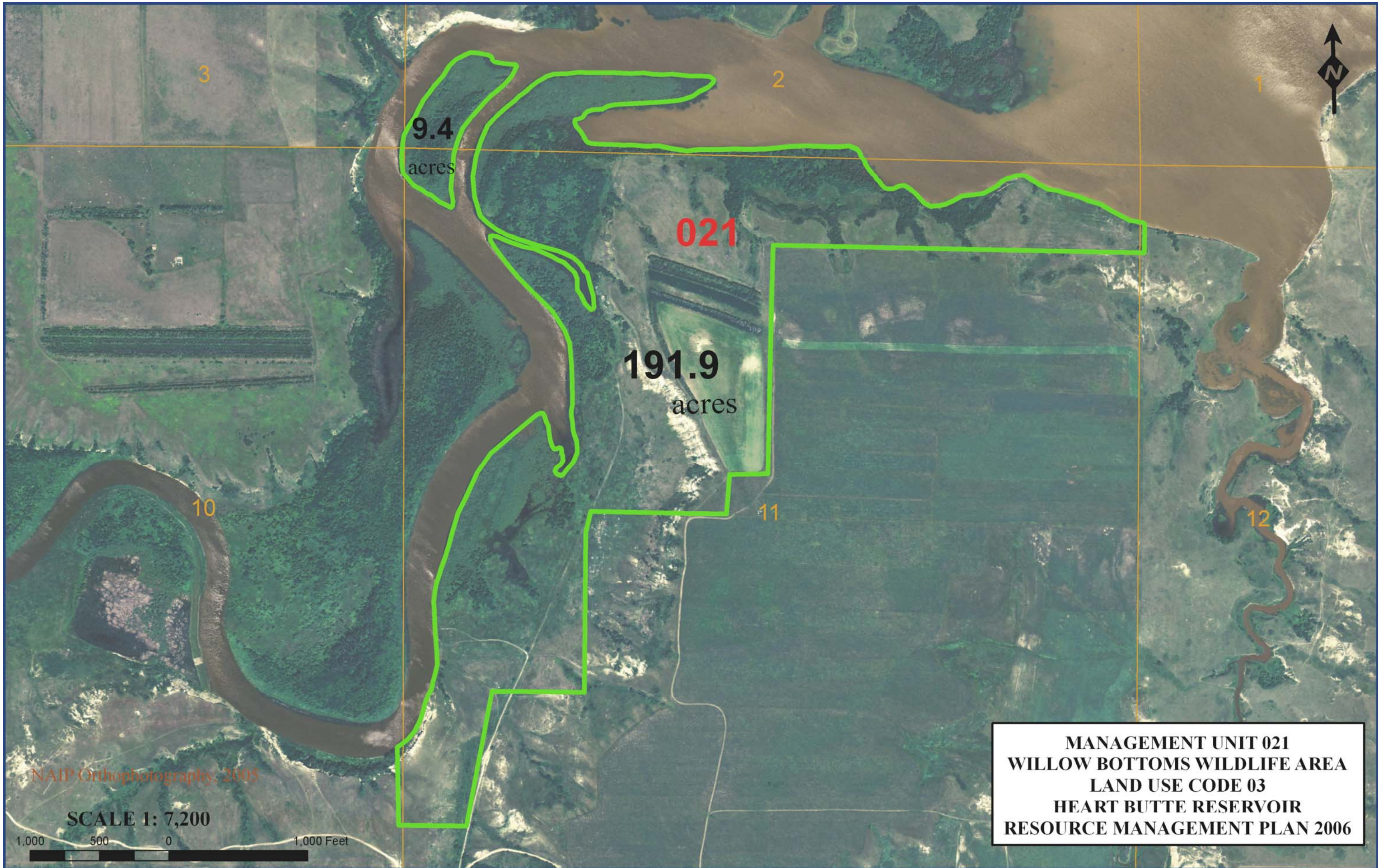
Work area into new grazing management plan - to be grazed once every 3 or 4 years.
Perform noxious weed control operations.
Cooperator will plant food plot for wildlife.
Plant 3.0 acres of trees along west side of food plot.

2009-2011

Plant any needed replacement trees in tree planting (EARTH Day)
Perform noxious weed control operations.
Cooperator will plant food plot for wildlife.

Long range planning

Continue food plot with cooperator.
Continue to perform noxious weed control operations.



9.4
acres

021

191.9
acres

NAIP Orthophotography, 2005

SCALE 1: 7,200

1,000 500 0 1,000 Feet

**MANAGEMENT UNIT 021
WILLOW BOTTOMS WILDLIFE AREA
LAND USE CODE 03
HEART BUTTE RESERVOIR
RESOURCE MANAGEMENT PLAN 2006**

MU 022 Verworn South Wildlife Area

Management Unit Number(MU): 022
Verworn South Wildlife Area

Land Use Codes: 03

1.1 Goal

To manage the unit's land and vegetation to provide a diversity of wildlife and their associated habitat; this in turn provides public recreation opportunities.

1.2 Location

The 120-acre area is located in Section 14 in T. 136 N., R. 90 W. Refer to the map in the appendix for an exact location.

1.3 Recreation and Use

Recreation use centers on bird watching, hiking, and hunting.

1.4 Vegetation

This MU contains native grasses with plentiful snowberry, chokecherry and buffalo berry. An old tree planting also exists in which many of the trees are dead or dying. A 15 acre food plot (HB-6) is also located west of the tree planting. Leafy spurge can be found on the unit.

1.5 Facilities Inventory

No additional facilities.

1.6 Historical Background

The MU is managed primarily as a wildlife area. The MU has sat idle for many years, but future plans are to manage it as part of the rotational grazing program. The food plot is now being planted and left in its entirety by a local landowner. Flea beetles have been introduced to help control leafy spurge.

RMP Five Year Plan

MU 022

2007

Construct fence to divide tree planting and food plot from the native grassland to create a pasture which can be grazed. Construct walk-thru in parking area fence and cross fence.

Perform noxious weed control operations.

Cooperator will plant food plot for wildlife.

2008

Include pasture in rotational grazing program.

Perform noxious weed control operations.

Cooperator will plant food plot for wildlife.

2009

Plant 3.9 acres of trees along NW side of food plot.

Perform noxious weed control operations.

Cooperator will plant food plot for wildlife.

2010

Hand plant any needed replacement trees (EARTH Day)

Perform noxious weed control operations.

Cooperator will plant food plot for wildlife.

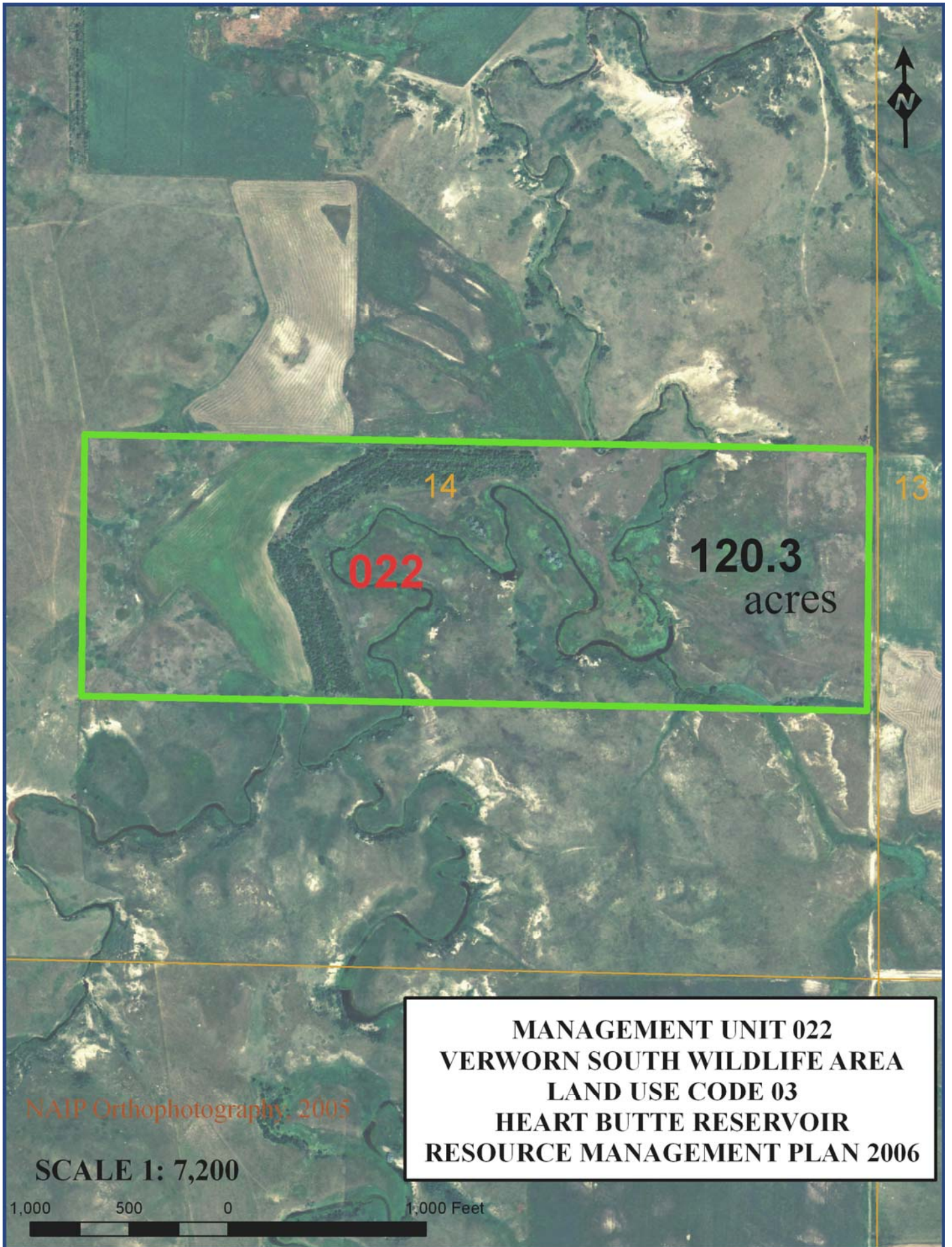
2011

No non-routine activities planned.

Long range planning

Continue planting food plot by local cooperator.

Continue to perform noxious weed control operations.



14

13

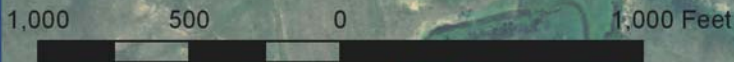
022

120.3
acres

**MANAGEMENT UNIT 022
VERWORN SOUTH WILDLIFE AREA
LAND USE CODE 03
HEART BUTTE RESERVOIR
RESOURCE MANAGEMENT PLAN 2006**

NAIP Orthophotography, 2005

SCALE 1: 7,200



MU 023 Verworn North Wildlife Areas

Management Unit Number(MU): 023
Verworn North Wildlife Area

Land Use Codes: 03

1.1 Goal

To manage the unit's land and vegetation to provide a diversity of wildlife and their associated habitat; this in turn provides public recreation opportunities.

1.2 Location

The 38-acre area is located in the northwest corner of Section 14 in T. 136 N., R. 90 W. Refer to the map in the appendix for an exact location.

1.3 Recreation and Use

Recreation use centers on bird watching, hiking, and hunting.

1.4 Vegetation

A couple rows of evergreen trees exist along the east boundary of the unit and a significant number of buffalo berry patches are also scattered throughout the tract.

See general vegetation description in section 3.1.5.

Leafy spurge can be found on the unit.

1.5 Facilities Inventory

No additional facilities.

1.6 Historical Background

The MU is managed primarily as a wildlife area. The MU has sat idle for many years, but future plans are to manage it as part of a rotational grazing program. Flea beetles have been introduced to help control leafy spurge.

RMP Five Year Plan

MU 023

2007-2011

Perform noxious weed control operations.

Long range planning

Perform noxious weed control operations.

Attempt to have local rancher graze the unit once every few years.



Far West Wildlife Area

Management Unit Number(MU): 024
Far West Wildlife Area

Land Use Codes: 03

1.1 Goal

To manage the unit's land and vegetation to provide a diversity of wildlife and their associated habitat; this in turn provides public recreation opportunities.

1.2 Location

The 2,687-acre area is located in Sections 10, 9, 8, 4, and 3 in T. 136 N., R. 90 W. as well as Sections 27, 28, 33, 34 and 35 in T137 N., R. 90 W. Refer to the map in the appendix for an exact location.

1.3 Recreation and Use

Recreation use centers on bird watching, hiking, river fishing, and hunting.

1.4 Vegetation

This MU contains food plots, tree plantings, and some idle grasslands, as well as native grassland pastures.

Numerous woody draws extend along drainages to the river.

Cottonwood and willow are numerous along the river.

Woody draws are made up of buffalo berry, chokecherry, hawthorn, green ash, etc.

A small aspen grove is located south of the river in section 4.

Leafy spurge and some Canada thistle infest the area.

1.5 Facilities Inventory

A dike with water control structure is located along the river in section 10 and creates "willow pond".

1.6 Historical Background

The MU is managed primarily as a wildlife area. Most of the MU is be grazed as part of the rotational grazing program. Several food plots are planted as crop share with local cooperators who are allowed to harvest 70% of the fields. Fishermen frequent various spots along the river.

RMP Five Year Plan

MU 024

2007

Continue the interim (2006, 2007) rotational grazing program.
Continue the food plot crop share contracts.
Perform noxious weed control operations.
Continue to work with grazing permittee for group H to restructure pastures.
Construct any needed fence in grazing group H.
Continue access review and begin signing closed trails and constructing parking areas.

2008

Implement new 5-year rotational grazing contracts.
Continue the food plot crop share contracts.
Perform noxious weed control operations.
Continue signing closed trails and constructing parking areas.

2009

Continue 5-year rotational grazing contracts.
Continue the food plot crop share contracts.
Perform noxious weed control operations.
Continue signing closed trails and constructing parking areas.

2010

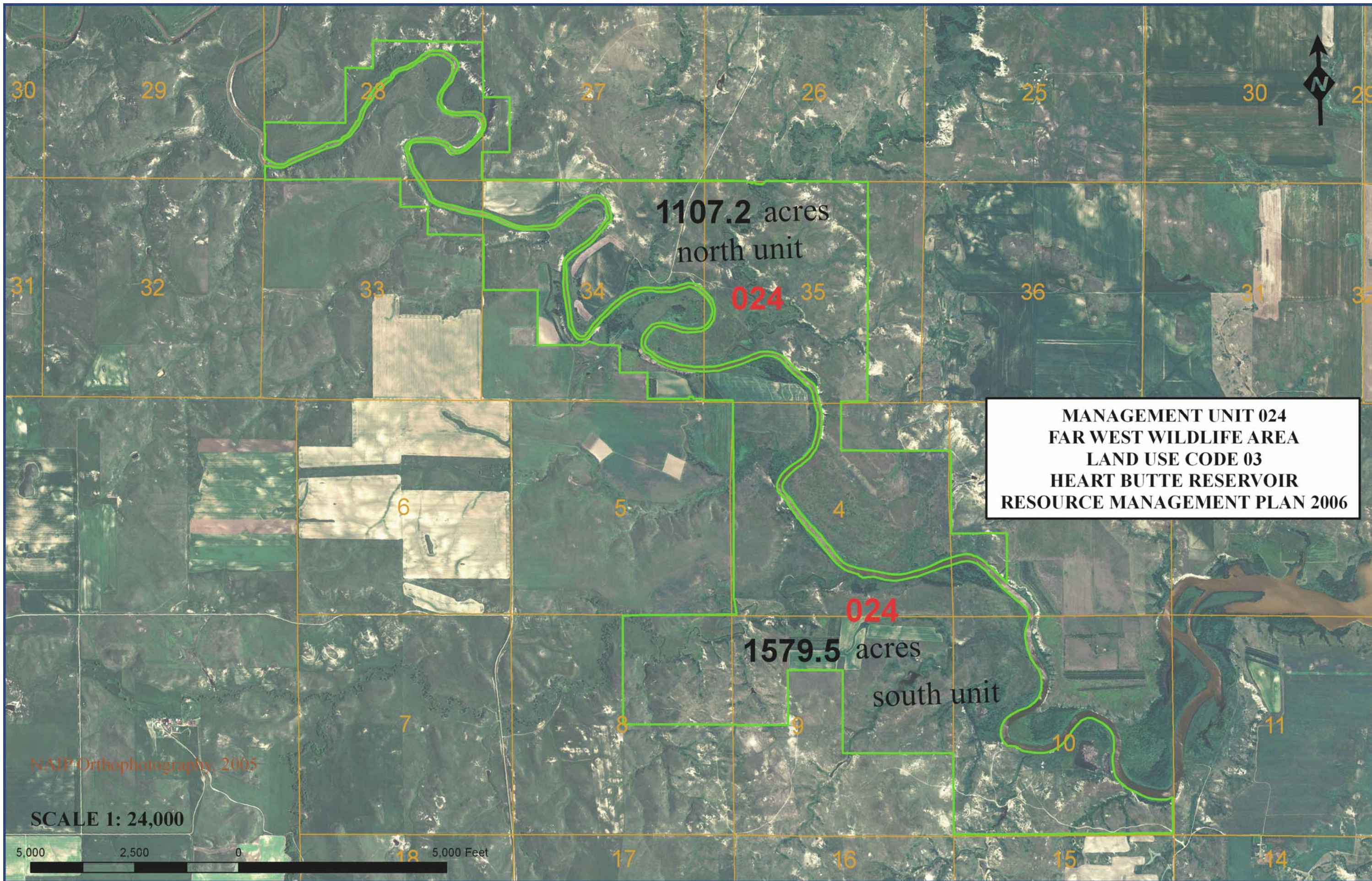
Continue 5-year rotational grazing contracts.
Perform noxious weed control operations.
Plant 2.8 acres of trees in Sec. 9 (Zimmerman) food plots.
Seed 31.6 acres of food plot to native grasses.

2011

Continue 5-year rotational grazing contracts.
Perform noxious weed control operations.
Plant 3.5 acres of trees in Sec. 34 (Zimmerman) food plots.
Seed 17.9 acres of food plot to grasses.
Hand plant any needed replacement trees in Sec.9 planting.

Long range planning

Monitor and make any necessary changes to grazing program.
Continue the food plot crop share contracts or combine with grazing contract to exchange food plot planting for grazing.
Plant additional trees in Sec. 35 food plots to provide windbreaks for the food plots, and additional food and cover for wildlife.
Continue to perform noxious weed control operations.
Check boundary fences and signs and replace as needed.
Look for any potential wetland restoration/construction opportunities.



MU 025 Eagles Bluffs Wildlife Area

Management Unit Number(MU): 025
Eagle Bluffs Wildlife Area

Land Use Codes: 03

1.1 Goal

To manage the unit's land and vegetation to provide a diversity of wildlife and their associated habitat; this in turn provides public recreation opportunities.

1.2 Location

The 363-acre area is located in Sections 10 and 11 in T. 136 N., R. 90 W. and Sections 2 and 3 of T. 137 N., R. 90 W. Refer to the map in the appendix for an exact location.

1.3 Recreation and Use

Recreation use centers on bird watching, hiking, fishing and hunting.

1.4 Vegetation

This MU contains a significant amount of riparian habitat and idle grasslands (both native and tame).

Cottonwood, willow and green ash abound along rivers edge.

An old tree planting located in section10 is dying off.

Leafy spurge is abundant in this unit.

1.5 Facilities Inventory

No additional facilities.

1.6 Historical Background

The MU is managed primarily as a wildlife area. It has been left idle for many years due to it's steep bluffs and deep draws, and abundant woody vegetation. Flea beetles have been introduced to help control leafy spurge.

RMP Five Year Plan

MU 025

2007

Perform noxious weed control operations.

Review access trails and determine if closures and signage are needed.

2008

Perform noxious weed control operations.

2009-2011

Perform noxious weed control operations.

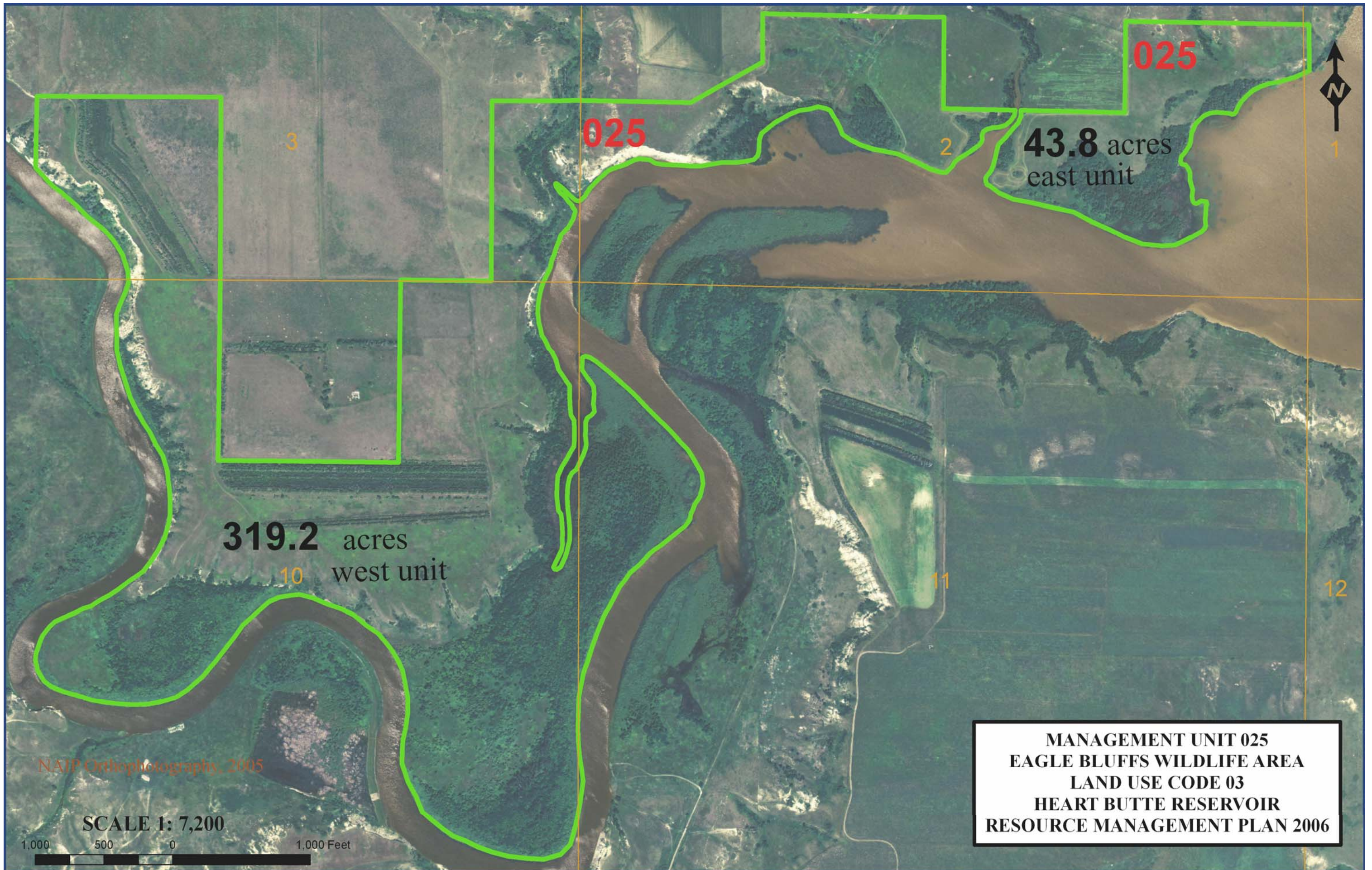
Long range planning

Continue to perform noxious weed control operations.

Rejuvenate (clear and replant) tree planting.

Attempt to have area grazed occasionally to rejuvenate vegetation.

.



025

025

43.8 acres
east unit

319.2 acres
west unit

NAIP Orthophotography, 2005

SCALE 1: 7,200

1,000 500 0 1,000 Feet

MANAGEMENT UNIT 025
EAGLE BLUFFS WILDLIFE AREA
LAND USE CODE 03
HEART BUTTE RESERVOIR
RESOURCE MANAGEMENT PLAN 2006

MU 026 Schelles Wildlife Area

Management Unit Number(MU): 026
Schelles Wildlife Area

Land Use Codes: 03

1.1 Goal

To manage the unit's land and vegetation to provide a diversity of wildlife and their associated habitat; this in turn provides public recreation opportunities.

1.2 Location

The 298-acre area is located in Section 1 of T. 136 N., R. 90 W. and Sections 6 and 7 in T. 136 N., R. 89W Refer to the map in the appendix for an exact location.

1.3 Recreation and Use

Recreation use centers on camping, bird watching, hiking, shore fishing and hunting.

1.4 Vegetation

This MU contains a food plot and two tree plantings.

Uplands are a mixture of native and tame grasses.

A heavily wooded drainage comes in from the north which contains cottonwood, bur oak, green ash and various brushy species.

Scattered buffalo berry patches can also be found in the unit.

Leafy spurge and Canada thistle are found on the unit.

1.5 Facilities Inventory

No additional facilities.

1.6 Historical Background

The MU is managed primarily as a wildlife area. The MU is managed as part of the rotational grazing program. The food plot has been idle for many years but is now being maintained by Reclamation. Schelle's Point Recreational Area is located in this unit and is occasionally used by campers, despite the lack of facilities. Flea beetles have been introduced to help control leafy spurge.

RMP Five Year Plan

MU 026

2007

Continue the interim rotational grazing permit
Perform noxious weed control operations.
Plant and maintain food plot.
Review access trails to determine if closures and signage are needed.

2008

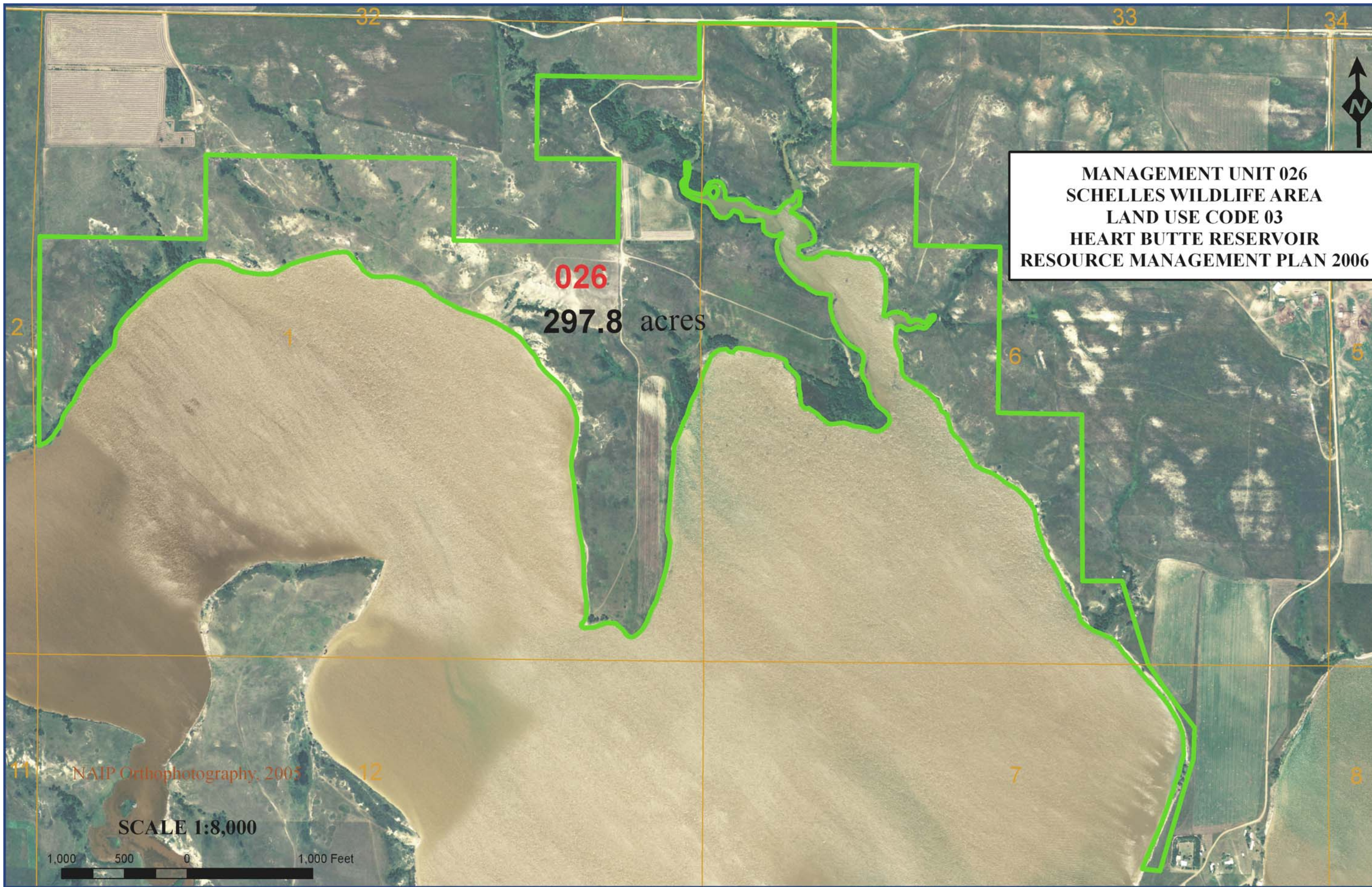
Implement new 5-year rotational grazing contract.
Perform noxious weed control operations.
Plant and maintain food plot.
Allow haying in exchange for planting food plot (every 4 years).

2009-2011

Perform noxious weed control operations.
Plant and maintain food plot.
Continue haying in exchange for planting food plot (every 4 years).
Continue rotational grazing program.

Long range planning

Perform noxious weed control operations.
Plant and maintain food plot.
Continue haying in exchange for planting food plot (every 4 years).
Develop additional recreational features if need arises.
Continue rotational grazing program.



**MANAGEMENT UNIT 026
SCHELLES WILDLIFE AREA
LAND USE CODE 03
HEART BUTTE RESERVOIR
RESOURCE MANAGEMENT PLAN 2006**

026
297.8 acres

11 NAIP Orthophotography, 2005

SCALE 1:8,000

1,000 500 0 1,000 Feet

MU 028 Rattlesnake Bluffs Wildlife Area

Management Unit Number(MU): 028
Rattlesnake Bluffs Wildlife Area

Land Use Codes: 03

1.1 Goal

To manage the unit's land and vegetation to provide a diversity of wildlife and their associated habitat; this in turn provides public recreation opportunities.

1.2 Location

The 427-acre area is located in Sections 3, 4, 5, 6, 7, 8 and 9 of T. 136 N., R. 89 W. Refer to the map in the appendix for an exact location.

1.3 Recreation and Use

Recreation use centers on bird watching, hiking, shore fishing and hunting.

1.4 Vegetation

See general vegetation description in section 3.1.5.
Some areas of leafy spurge exist on the unit

1.5 Facilities Inventory

No additional facilities.

1.6 Historical Background

The MU is managed primarily as a wildlife area. Most of the eastern portion of the MU has sat idle for many years, while the west portion has been grazed. Flea beetles have been introduced to help control leafy spurge. Many steep bluffs occur along the lake shoreline.

RMP Five Year Plan

MU 028

2007

Construct needed fence for pastures 1 & 2 and remove un-needed fence.
Perform noxious weed control operations.

2008

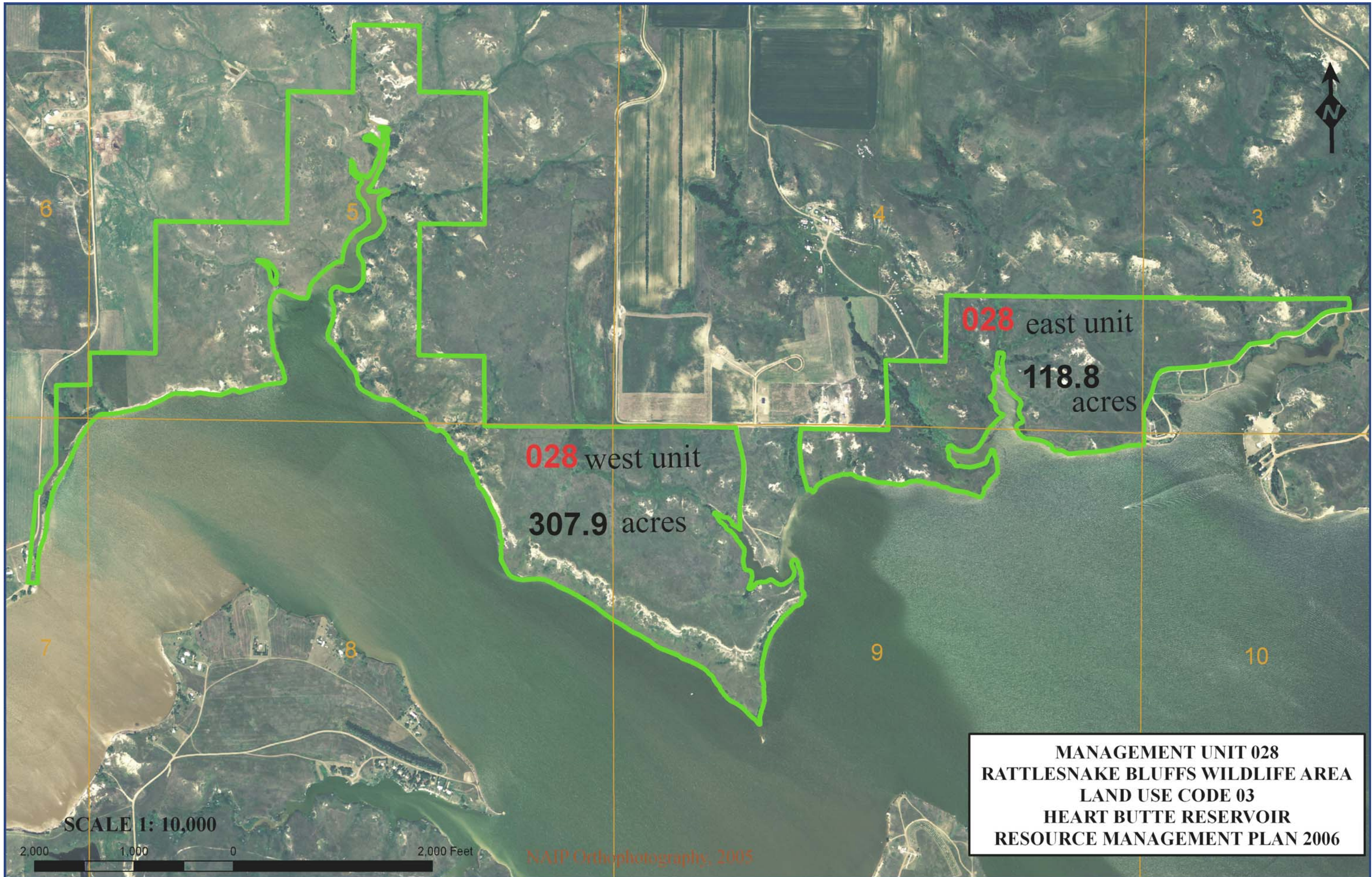
Implement new 5-year rotational grazing contract to include all 4 pastures.
Perform noxious weed control operations.

2009-2011

Continue to perform noxious weed control operations.
Continue rotational grazing program.

Long range planning

Continue to perform noxious weed control operations.
Continue rotational grazing program.
It could become necessary to expand the Crappie Creek or Rattlesnake Point Recreational Areas into this area, if demands for additional camp sites ever warrant it.



028 west unit
307.9 acres

028 east unit
118.8 acres

**MANAGEMENT UNIT 028
RATTLESNAKE BLUFFS WILDLIFE AREA
LAND USE CODE 03
HEART BUTTE RESERVOIR
RESOURCE MANAGEMENT PLAN 2006**

SCALE 1: 10,000

2,000 1,000 0 2,000 Feet

NAIP Orthophotography, 2005

MU 031 Crappie Creek Wildlife Area

Management Unit Number(MU): 031
Crappie Creek Wildlife Area

Land Use Codes: 03

1.1 Goal

To manage the unit's land and vegetation to provide a diversity of wildlife and their associated habitat; this in turn provides public recreation opportunities.

1.2 Location

The 42-acre area is located in Section 3 and 10 in T. 136 N., R. 89 W. Refer to the map in the appendix for an exact location.

1.3 Recreation and Use

Recreation use centers on bird watching, hiking, and hunting.

1.4 Vegetation

This MU contains a mixture of native/tame idle grasslands.
See general vegetation description in section 3.1.5.

1.5 Facilities Inventory

No additional facilities.

1.6 Historical Background

The MU is managed primarily as a wildlife area.

RMP Five Year Plan

MU 031

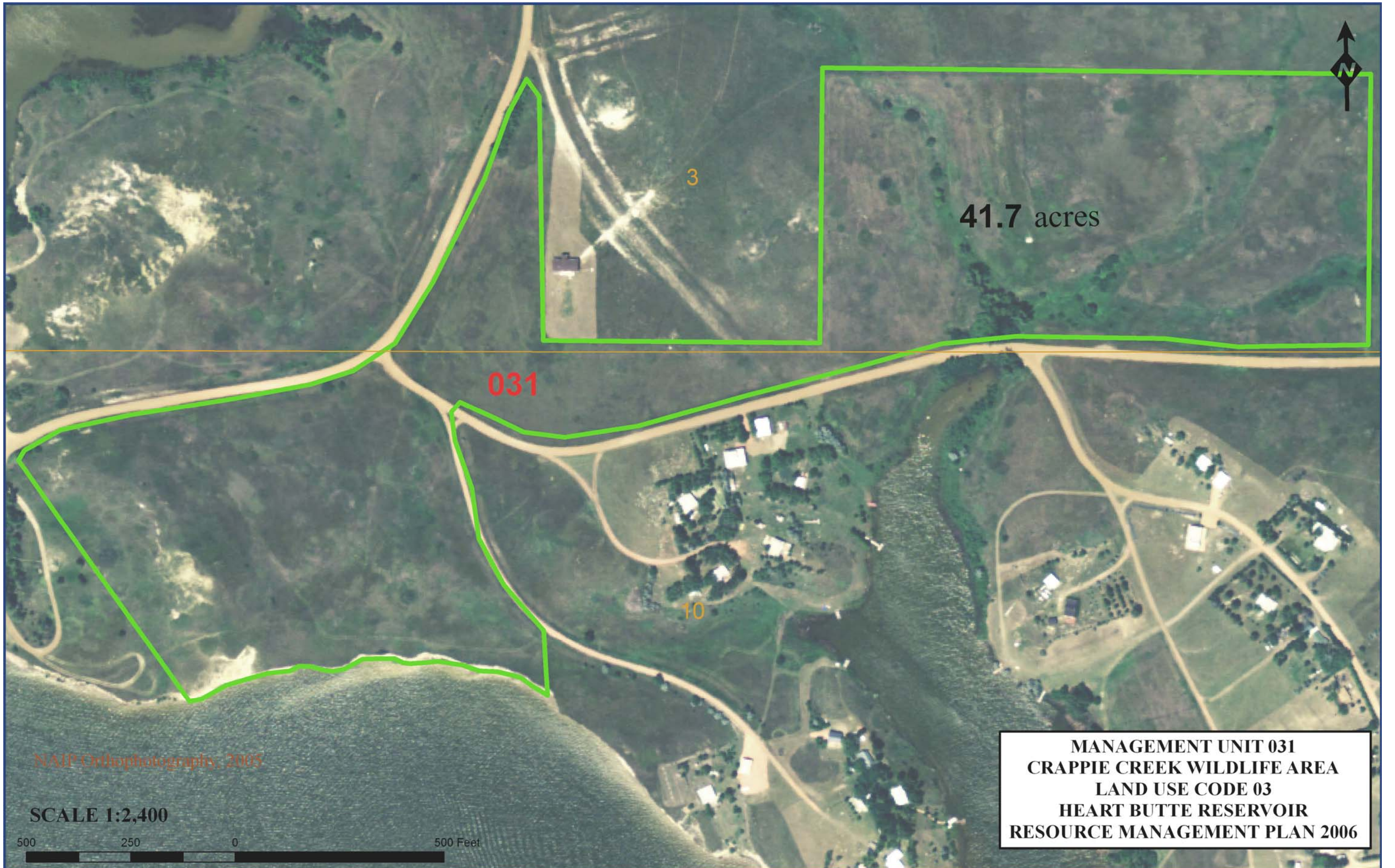
2007-2011

Perform noxious weed control operations if needed.

Long range planning

Perform noxious weed control operations as needed.

Grasslands may be hayed every four years, in exchange for planting food plots.



NAIP Orthophotography, 2005

SCALE 1:2,400

500 250 0 500 Feet

**MANAGEMENT UNIT 031
CRAPPIE CREEK WILDLIFE AREA
LAND USE CODE 03
HEART BUTTE RESERVOIR
RESOURCE MANAGEMENT PLAN 2006**

MU 033 Swift Wildlife Area

Management Unit Number(MU): 033
Swift Wildlife Area

Land Use Codes: 03

1.1 Goal

To manage the unit's land and vegetation to provide a diversity of wildlife and their associated habitat; this in turn provides public recreation opportunities.

1.2 Location

The 351-acre area is located in Sections 10, 11 and 12 of T. 136 N., R. 89 W. Refer to the map in the appendix for an exact location.

1.3 Recreation and Use

Recreation use centers on bird watching, hiking, and hunting.

1.4 Vegetation

Native pasture.

See general vegetation description in section 3.1.5.

Some leafy spurge can be found in unit.

1.5 Facilities Inventory

A private stock water tank is located in pasture #1. It is fed by an underground line running from the private property to the north.

No Reclamation facilities.

1.6 Historical Background

The MU is managed primarily as a wildlife area. The MU has been grazed for many years and is now included in a rotational grazing program. Flea beetles have been introduced to help control leafy spurge.

RMP Five Year Plan

MU 033

2007

Continue interim rotational grazing permit
Perform noxious weed control operations.

2008

Implement new 5-year rotational grazing contract.
Perform noxious weed control operations.

2009-2011

Continue to perform noxious weed control operations.
Continue the rotational grazing program.

Long range planning

Continue to perform noxious weed control operations.
Continue the rotational grazing program.
Pasture # 1 could be expanded to the southeast after grass plantings in MU 35 are established.



351.4 acres

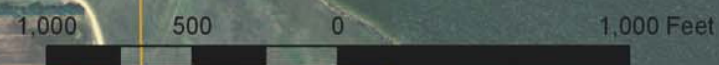
033

11

12

NAIP Orthophotography, 2005

SCALE 1:7,200



MANAGEMENT UNIT 033
SWIFT WILDLIFE AREA
LAND USE CODE 03
HEART BUTTE RESERVOIR
RESOURCE MANAGEMENT PLAN 2006

MU 035 North Trailers Wildlife Area

Management Unit Number(MU): 035
North Trailers Wildlife Area

Land Use Codes: 03

1.1 Goal

To manage the unit's land and vegetation to provide a diversity of wildlife and their associated habitat; this in turn provides public recreation opportunities.

1.2 Location

The 231-acre area is located in Sections 12 and 13 T. 136 N., R. 89 W. Refer to the map in the appendix for an exact location.

1.3 Recreation and Use

Recreation use centers on bird watching, hiking, and hunting.

1.4 Vegetation

This MU contains food plots, tree plantings, tame grass plantings and some native prairie. A deep wooded draw is located just north of the concession. Some leafy spurge can be found on the unit.

This management unit has been identified as containing Horizontal Juniper Shrubland and Needle-and-Thread Mixed Prairie by the Natural Heritage Database. This habitat is ranked as "Vulnerable" and "Imperiled", respectively, by the Nature Conservancy District.(See Section 3.1.7, page29).

1.5 Facilities Inventory

No additional facilities.

1.6 Historical Background

The MU is managed primarily as a wildlife area. The MU has been hayed from time to time and will be included in a haying exchange plan for services rendered by a local farmer to develop a food plot. Flea beetles have been introduced to help control the leafy spurge.

RMP Five Year Plan

MU 035

2007

Hand plant replacement trees as needed (EARTH Day).
Plant food plots.
Clip grass plantings to control weeds.
Monitor grass planting for grass establishment
Control noxious weeds as needed.
Monitor and turn compost pile.

2008

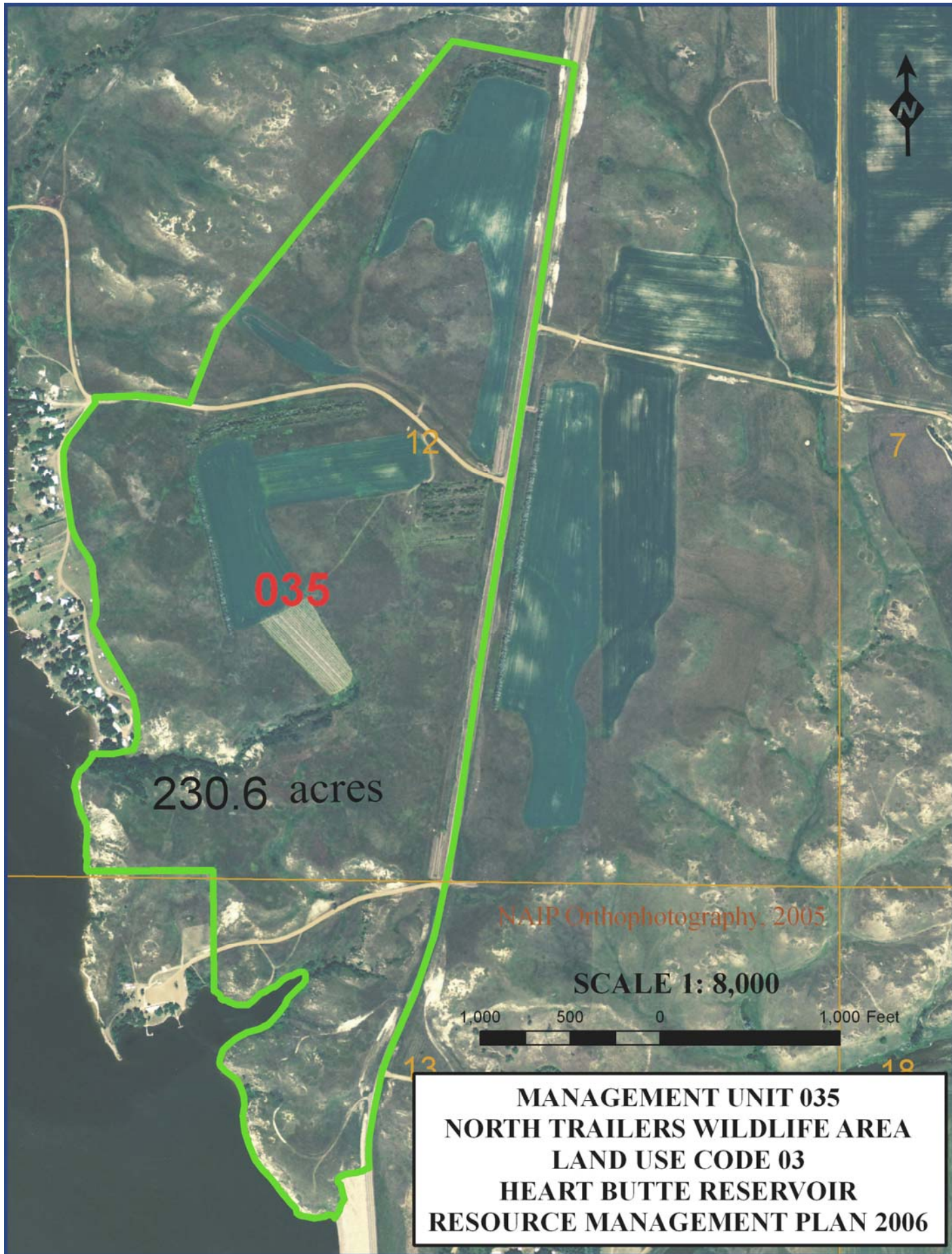
Plant food plots.
Hand plant replacement trees if necessary.
Clip grass plantings to control weeds if necessary.
Hay fields as prescribed in the haying for food plot contract.
Control noxious weeds as needed.
Monitor and turn compost pile - spread cured materials in food plot.

2009-2011

Plant food plots.
Control noxious weeds as needed.
Monitor and turn compost pile - spread cured materials in food plot.

Long range planning

Fence area north of trailer area road (exclude food plot & tree plantings) and make part of pasture #1 in MU 33.
Continue to plant food plots.
Continue to control noxious weeds as needed.
Hay south fields every four years to rejuvenate grasses as part of the haying for food plot contract.



MU 037 Downstream Wildlife Area

Management Unit Number(MU): 037
Downstream Wildlife Area

Land Use Codes: 03

1.1 Goal

To manage the unit's land and vegetation to provide a diversity of wildlife and their associated habitat; this in turn provides public recreation opportunities

1.2 Location

The 132-acre area is located in Sections 12 and 13 of T. 136 N., R. 89 W. Refer to the map in the appendix for an exact location.

1.3 Recreation and Use

Recreation use centers on bird watching, hiking, and hunting.

1.4 Vegetation

Native pasture and tame grass plantings.

See general vegetation description in section 3.1.5.

Some leafy spurge is found in the MU.

This management unit has been identified as containing Horizontal Juniper Shrubland and Needle-and-Thread Mixed Prairie by the Natural Heritage Database. This habitat is ranked as "Vulnerable" and "Imperiled", respectively, by the Nature Conservancy District.(See Section 3.1.7, page29).

1.5 Facilities Inventory

No additional facilities.

1.6 Historical Background

The MU is managed primarily as a wildlife area. The south half of the MU has been grazed and is now part of a rotational grazing program. The north half has been a crop share food plot. Flea beetles have been introduced to help control leafy spurge.

RMP Five Year Plan

MU 037

2007

Continue interim rotational grazing program
Clip grass planting to control weeds if needed.
Perform noxious weed control operations.
Hand plant replacement trees in tree planting (EARTH Day).

2008

Implement new 5-year rotational grazing contract.
Perform noxious weed control operations.
Hay DNC field as part of the haying for food plot contract.

2009-2011

Continue 5-year rotational grazing contract.
Perform noxious weed control operations.

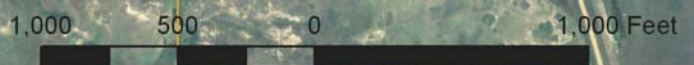
Long range planning

Continue to perform noxious weed control operations.
Grass Planting may be hayed once every four years as part of the haying exchange for food plot program.
Continue rotational grazing program.



**MANAGEMENT UNIT 037
DOWNSTREAM WILDLIFE AREA
LAND USE CODE 03
HEART BUTTE RESERVOIR
RESOURCE MANAGEMENT PLAN 2006**

SCALE 1: 8,000



NAIP Orthophotography, 2005

037

131.5 acres

12

7

13

18



SECTION 8 RECREATION UNITS MANAGEMENT AND DEVELOPMENT

MU 004	Rimrock Recreation Area
MU 013	Hawebesi (Includes SSTA public area) Recreation Area
MU 015	Schatzs Point Recreation Area
MU 027	Koehler's Point Recreation Area
MU 029	Rattlesnake Point Recreation Area
MU 030	Crappie Creek Recreation Area
MU 036	Northshore Concession Area
MU 038	Downstream Recreation Area
MU 039	Lake Tschida

Environmental Commitments

Project revisions and project concepts that differ from those already considered under this Management Unit Packet will be considered under separate NEPA and NHPA compliance. Heart Butte Reservoir Manager must consult with DKAO Resources Division staff prior to altering approved project plans or amending approved project plans with additional project elements. Projects described in this Management Unit Packet that have not been considered under the Categorical Exclusion Checklist – DK600-06-58 or have been conceived following the completion of the Heart Butte RMP will be considered under separate NEPA analysis.

MU 004 Rimrock Recreation Area

Management Unit Number(MU): 004
Rimrock Recreation Area

Land Use Code: 02

1.1 Goal

To manage the unit's land and vegetation resources to provide safe and convenient public recreation opportunities.

1.2 Location

The area is south and west of the Heart Butte Dam and is known as Rimrock Recreation Area. 69.8 acres in Sections 13, 14 and 24 of T. 136 N., R. 89 W. Refer to the map in appendix for exact location.

1.3 Recreation and use

Recreation activities are swimming, fishing, picnicking and camping.

1.4 Vegetation

A mixture of tame and native grasses, along with numerous trees and shrubs are found in this area.

This management unit has been identified as containing Horizontal Juniper Shrubland and Needle-and-Thread Mixed Prairie by the Natural Heritage Database. This habitat is ranked as "Vulnerable" and "Imperiled", respectively, by the Nature Conservancy District.(See Section 3.1.7, page29).

1.5 Facilities Inventory

This area has 3 restroom facilities (two ADA compliant) and one RV dump station. Two boat ramps with courtesy docks are available for use; a third dock is also available for loading and unloading passengers. This area has a large swim beach and three shelters (1 for day use only is ADA compliant). Rimrock Recreation Area has 57 primitive camping sites with no electric or water (one ADA compliant). The area kiosk (ADA) provides historical information. An overlook provides a view of the reservoir. Two potable water wells (1 pressurized and 1 hand pump) are available for public use. They are ADA compliant.

1.6 Historical Background

The MU is managed primarily as a recreation area. Accessible Disability Act (ADA) facilities are available for use by challenged recreation users.

RMP Five Year Plan

MU 004 (Rimrock Recreation Area)

1. Annual Reclamation maintenance
 - a. Dock placement, removal and repair as needed
 - b. Water seal picnic tables (repair as needed)
 - c. Beach grooming.
 - d. Blade the roads
 - e. Replenish kiosk maps, etc.
 - f. Set and remove beach buoy lines and bay buoys
 - g. Repairs to toilets, shelters, fire rings, etc. as needed.
 - h. Spray noxious weeds (spurge, dandelion, etc)
 - i. Trim trees and remove fallen trees and branches

2. Annual Contractor Services
 - a. Garbage Collection Contract (6 dumpsters)
 - b. Campground Maintenance Contract
 1. Clean three comfort stations
 2. Clean 71 picnic tables
 3. Empty 5 garbage cans
 4. Pressure-wash 6 dumpsters
 5. Clean out 57 fire-rings
 6. Mow 16 acres of grass (as needed)
 - c. Pump out dump station (as needed)

2007

Redesign the Campground to separate the day use areas from the camping areas.

Reconstruct the irrigation loop of the campground.

Improve access road to come in by swamp area. (NEPA completed DK400-06-54)

Begin construction of the campground host campsite. (NEPA completed DK400-06-54)

Begin construction of one of two new camping loops. **(Cultural resources compliance for the south loop will be completed prior to construction)** NEPA compliance has been completed for one of the loops and the ADA host campsite location (DK-400-06-54).

Purchase ADA Roll-in Dock for west boat landing.

Construct concrete parking pad and access route to ADA dock. **(Cultural resources compliance for the concrete work and disturbance will be completed prior to construction)**

Rip-rap the shoreline around the west boat landing to stabilize the bank. **(404 permit and NEPA required. This will be completed prior to construction).**

2008

Complete construction of new camping loops

Complete construction of the campground host campsite.

Advertise for and award the campground host position (volunteer).

Contract to have toilet vaults pumped out.

2009

Construct additional ADA toilet in new camping area

Re-construct Dump Station to ADA standards - retro-fit water faucet and pour concrete slab or asphalt road to ADA standards.

Replace 10 fire rings

2010

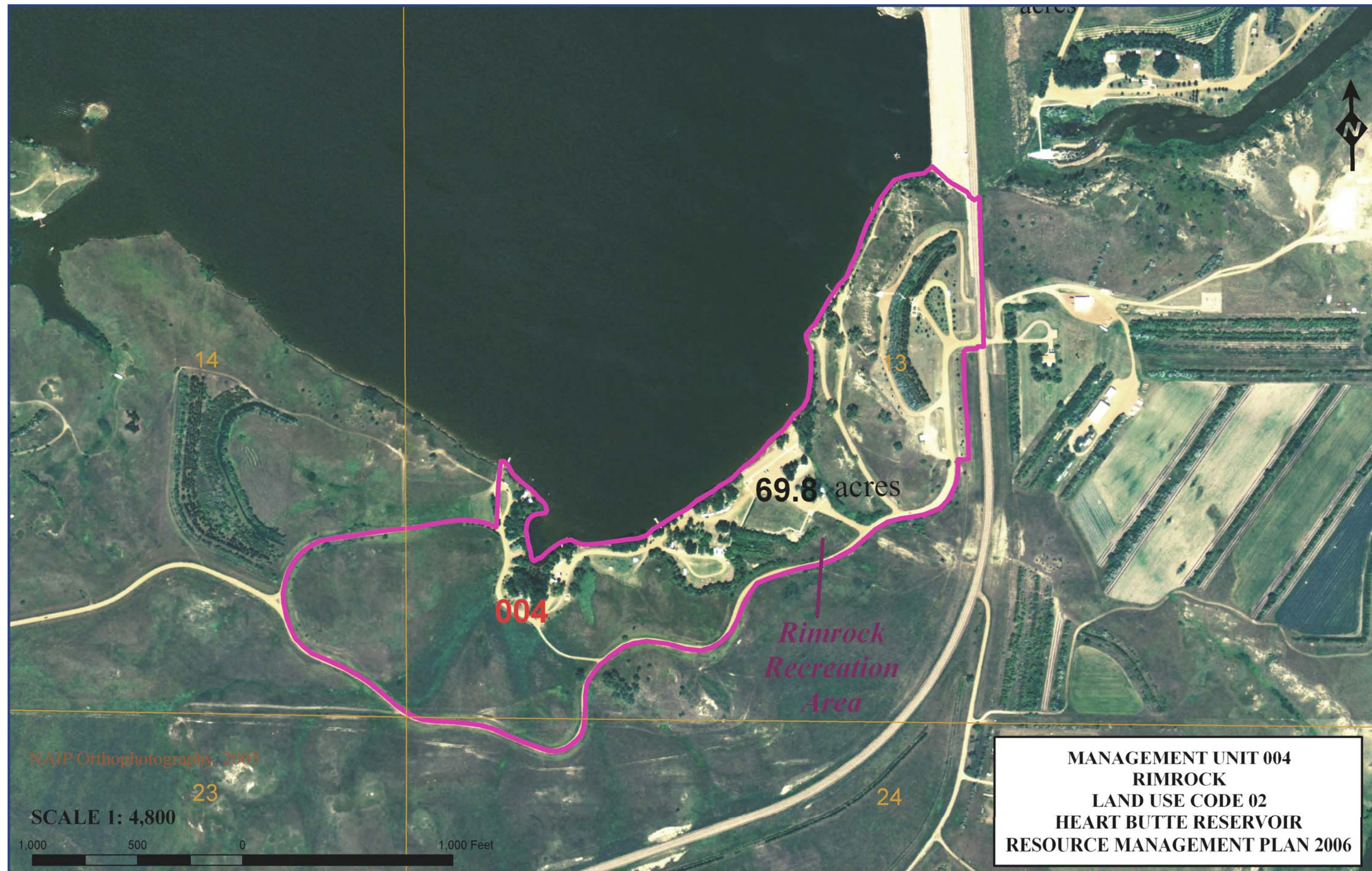
Replace 10 picnic tables

2011

Re- gravel roads

Long range planning

In 2004 a recreational survey was conducted on the reservoir. The top 3 facilities users want to see developed at Rimrock Recreation Area are electrical campsites, bath house, and fish cleaning station. Other notables were playground equipment and hiking/biking trail. If these facilities are developed visitation may increase. Additional camp pads may have to be added to accommodate additional use. Relocation of the concession to this area to make the concession more viable has been discussed. Rimrock Recreation Area offers more opportunity for financial gain with a little investment by the concessionaire. A commercial services plan would have to be completed to see if this idea is feasible. **Separate NEPA compliance would be undertaken at that time.**



MU 013 Hawebesi Recreation Area

Management Unit Number(MU): 013
Hawebesi Recreation Area (includes SSTA
public area)

Land use code: 02

1.1 Goal

To manage the unit's land and vegetation resources to provide safe and convenient public recreation opportunities.

1.2 Location

The area is west of the Heart Butte Dam and is known as Hawebesi Recreation Area. 3.7 acres in Sections 10 and 15 of T. 136 N., R. 89 W. Refer to the map in appendix for exact location.

1.3 Recreation and use

Recreation activities are fishing, swimming, picnicking and camping.

1.4 Vegetation

See general vegetation description in section 3.1.5.

This management unit has been identified as containing Smooth Cliffbrake- fern by the Natural Heritage Database. This habitat is ranked "Apparently Secure" by the Nature Conservancy District. (See Section 3.1.7, page29).

1.5 Facilities Inventory

This area has one vault toilet and one day use shelter. Another vault toilet is located at the South Side Trailer Area (SSTA) public use area.

1.6 Historical Background

The MU is managed primarily as a recreation area. There are no Accessible Disability Act (ADA) facilities in this area; those with special needs are directed to Schatz's Point.

RMP Five Year Plan

MU 013 (Hawebesi Recreation Area)

1. Annual Reclamation maintenance
 - a. Make any needed repairs to toilets, shelter and fire rings
 - b. Water seal picnic tables (repair as needed)
 - c. Spray noxious weeds
 - d. Mow SSTA public use area
 - e. Repair and add rock as needed to shoreline rip/rap. (**Appropriate NEPA compliance and 404 permit maybe needed**)

2. Annual Contractor Services
 - a. Campground Maintenance Contract
 - (1) Clean toilets
 - (2) Clean 6 picnic tables
 - (3) Clean out 6 fire-rings
 - (4) Mow 1 acre of grass at Hawebesi Recreation Area (as needed)
 - b. Garbage Collection Contract

2007

Place picnic table and fire ring in former lot 32 to make it available for public camping.
Plant a few shade trees at SSTA

2008

Contract to have toilet vaults pumped

2009-2011

Perform annual maintenance (see above).

Long range planning

In 2004 a recreational survey was conducted on the reservoir. The top three facilities users wanted to see developed at Hawebesi Recreation Area are electrical campsites, a bath house, and a fish cleaning station.



10

*Hawebesi
Recreation
Areas*

2.3
acres

013

1.4 acres

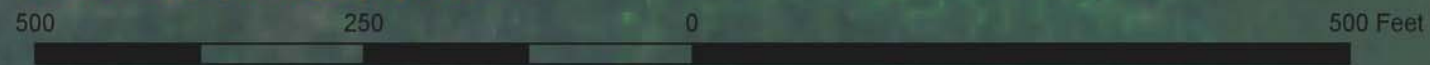
013

15

**MANAGEMENT UNIT 013
HAWEBESI (includes SSTA public area)
LAND USE CODE 02
HEART BUTTE RESERVOIR
RESOURCE MANAGEMENT PLAN 2006**

NAIP Orthophotography, 2005

SCALE 1: 1,600



MU 015 Schatz's Point Recreation Area

Management Unit Number (MU): 015
Schatz's Point Recreation Area

Classification: 02

1.1 Goal

To manage the unit's land and vegetation to provide safe and public recreation opportunities.

1.2 Location

The area is south and west of the Heart Butte Dam and is known as Schatz's Point Recreation Area.

66.1 acres in Sections 9 and 16 of T. 136 N., R. 89 W.

Refer to the map in appendix for exact location.

1.3 Recreation and use

Recreation activities are fishing, swimming, picnicking, boating and camping.

1.4 Vegetation

See general vegetation description in section 3.1.5.

Leafy spurge and Canada thistle are present in the unit.

1.5 Facilities Inventory

This area has 3 restroom facilities (one ADA compliant). One boat ramp and one courtesy dock are available for use (ADA compliant). This area has two shelters. Schatz's Point Recreation Area has 21 camping sites (one ADA compliant), no electric or water. There is one potable water well with hand pump is available for public use.

1.6 Historical Background

The MU is managed primarily as a recreation area. Accessible Disability Act (ADA) facilities have been constructed in recent years to be used by challenged recreation users.

RMP Five Year Plan

MU 015 (Schatz's Point Recreation Area)

1. Annual Reclamation maintenance
 - a. Put in and take out one dock (make repairs as needed)
 - b. Water proof picnic tables (repair as needed)
 - c. Repair toilets, shelters and fire rings as needed.
 - d. Blade the roads
 - e. Set and remove bay buoy
 - f. Spray noxious weeds

2. Annual Contractor Services
 - a. Garbage Collection Contract (2 dumpsters)
 - b. Campground Maintenance Contract
 - (1) Clean three comfort stations
 - (2) Clean 25 picnic tables
 - (3) Pressure wash 2 dumpsters
 - (4) Clean out 21 fire-rings
 - (5) Mow 8 acres of grass (as needed)
 - (6) Pick up trash from grounds

2007

Annual maintenance.

2008

Contract to have toilet vaults pumped out.

2009

Stabilize shoreline by hidden shelter.

2010

Determine a campground host site and begin construction of the site to include:

- a. Install a septic tank with or without a drain field.
- b. Bring electricity to the site and install plug-ins.
- c. Bring water in to the site and install hook-ups.
- d. **This action will require separate NEPA/NHPA**

Replace 5 picnic tables. Replace 5 fire rings.

2011

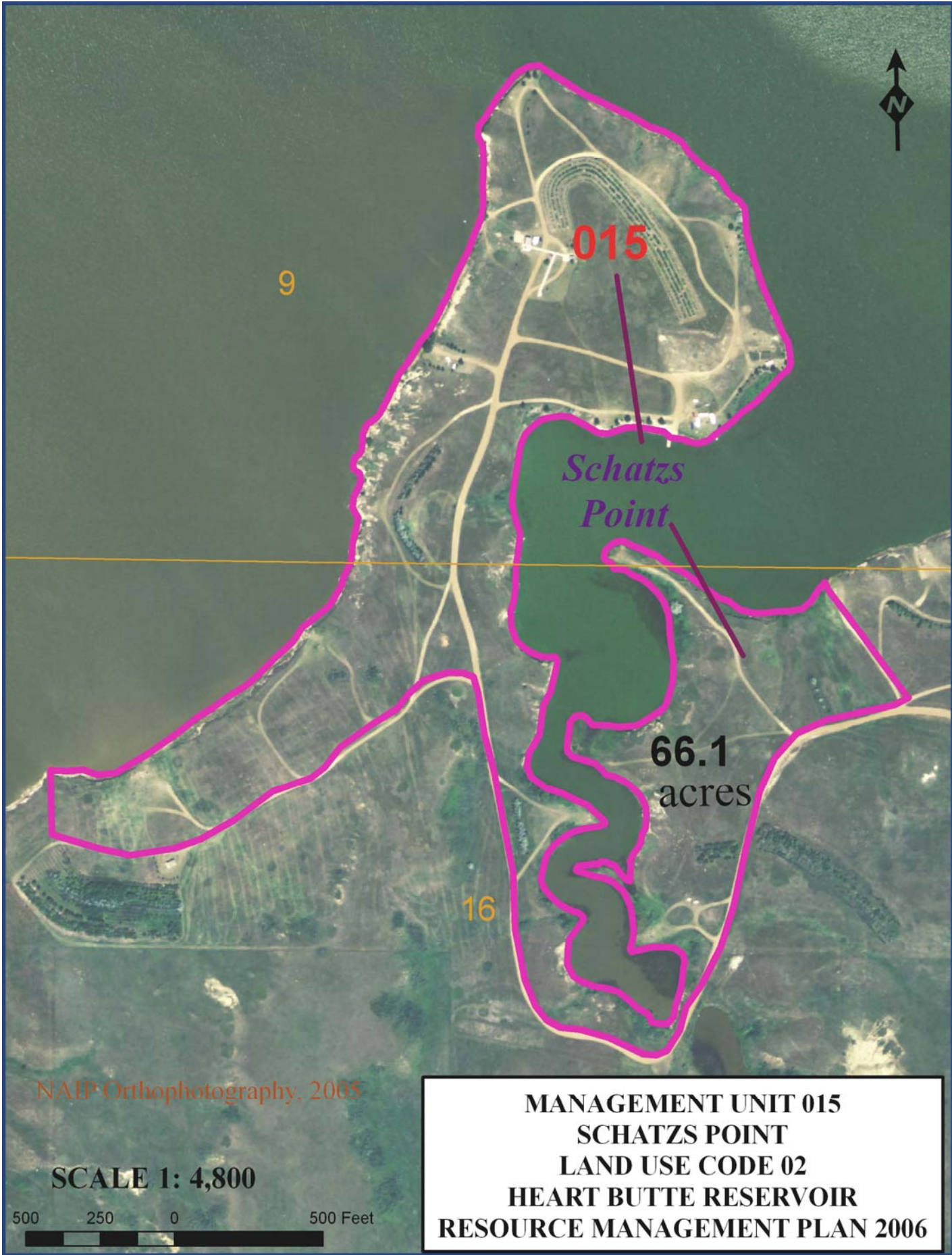
Complete the construction of the campground host campsite.

Advertise for and award the campground host position (volunteer).

Delineate and number campsites (install numbered posts).

Long range planning

In 2004 a recreational survey was conducted on the reservoir. The top 3 facilities users want to see developed at Schatz's Point Recreation Area are electrical campsites, bath house, and fish cleaning station. Other development notables were playground equipment and shelter belts. If these facilities are developed, use may increase and additional camp pads may have to be added to accommodate the demand. **(Additional NEPA compliance may be required)**



MU 027 Koehlers Point Recreation Area

Management Unit Number(MU): 027
Koehlers Point Recreation Area

Classification: 02

1.1 Goal

To manage the unit's land and vegetation to provide safe and convenient public recreation opportunities.

1.2 Location

Koehler's Point Recreation Area is north and west of the Heart Butte Dam.
9.2 acres in Section 7 of T. 136 N., R. 90 W.
Refer to the map in appendix for exact location.

1.3 Recreation and Use

Recreation activities are fishing, swimming, picnicking and camping.

1.4 Vegetation

See general vegetation description in section 3.1.5.

1.5 Facilities Inventory

This area has 1 restroom facility, one boat ramp with courtesy dock and 2 campsites with fire rings. There is no electric or potable water.

1.6 Historical Background

The MU is managed primarily as a recreation area. This area has no ADA facilities; challenged recreation users are directed to Crappie Creek Recreation Area.

RMP Five Year Plan

MU 027(Koehlers Point Recreation Area)

1. Annual Reclamation maintenance
 - a. Put in and take out one dock (make repairs as needed)
 - b. Waterproof picnic tables.
 - d. Blade the roads
 - e. Make any needed repairs to toilet and fire rings
 - f. Spray noxious weeds (spurge, thistle, etc.)

2. Annual Contractor Services
 - a. Garbage Collection Contract (0 dumpsters)
 - b. Campground Maintenance Contract
 1. Clean one comfort station
 2. Clean 3 picnic tables
 3. Clean out 2 fire rings
 4. Mow 1 acre of grass (as needed)

2007

Annual maintenance

2008

Contract to have toilet vault pumped out.

2009

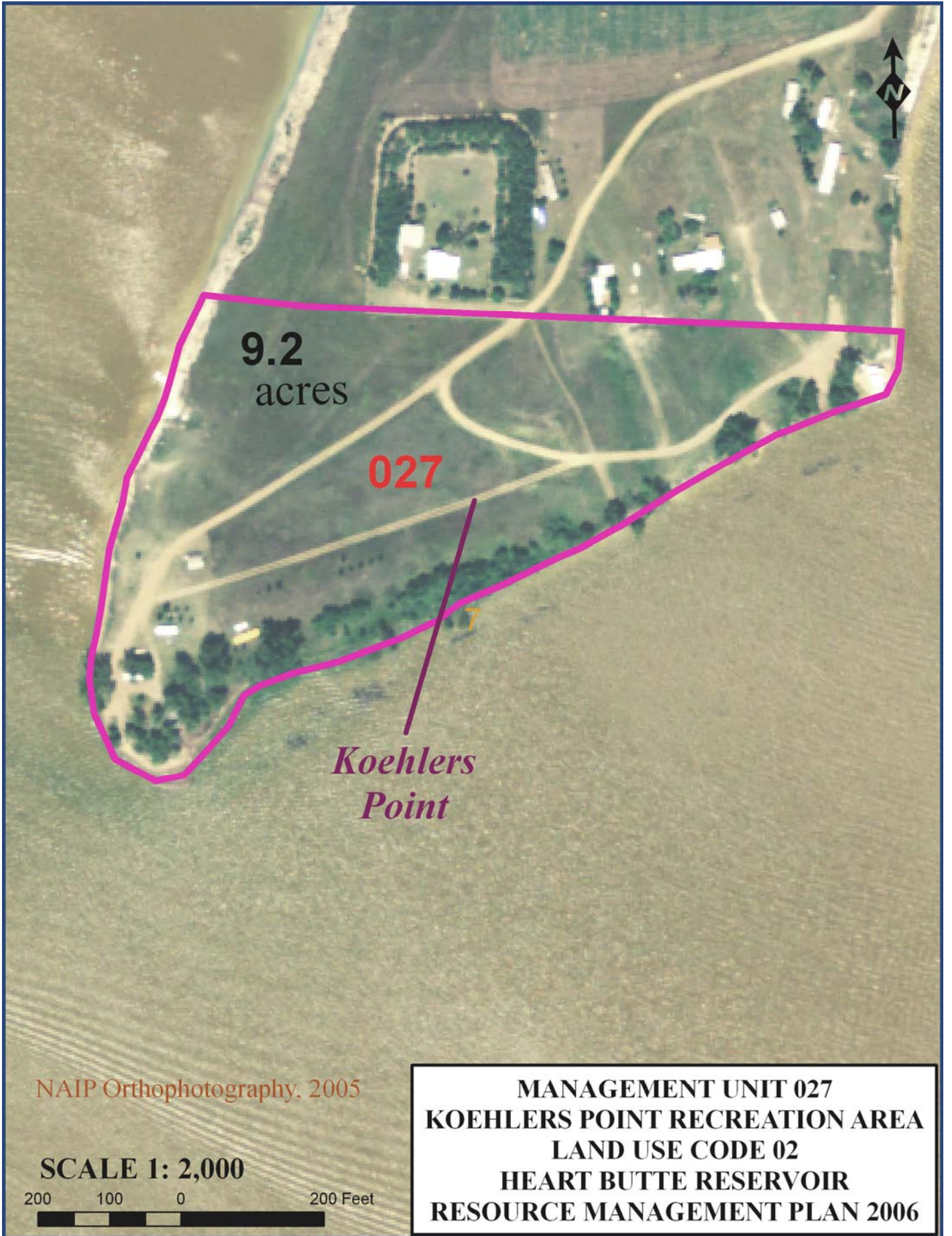
Add one fire ring and picnic table (create additional campsite)

2010-2011

Annual maintenance

Long range planning

In 2004 a recreational survey was conducted on the reservoir. The top 2 facilities users want to see developed at Koehlers Point Recreation Area are more campsites (fire rings), and additional trees for shelter.



NAIP Orthophotography, 2005

SCALE 1: 2,000

200 100 0 200 Feet

**MANAGEMENT UNIT 027
KOEHLERS POINT RECREATION AREA
LAND USE CODE 02
HEART BUTTE RESERVOIR
RESOURCE MANAGEMENT PLAN 2006**

Rattlesnake Point Recreation Area

Management Unit Number(MU): 029
Rattlesnake Point Recreation Area

Classification: 02

1.1 Goal

To manage the unit's land and vegetation to provide safe and public recreation opportunities.

1.2 Location

Rattlesnake Point Recreation Area is north and west of the Heart Butte Dam.

15.9 acres in Section 9 of T. 136 N., R. 89 W.

Refer to the map in appendix for exact location.

1.3 Recreation and use

Recreation activities are fishing, swimming, picnicking and camping. .

1.4 Vegetation

See general vegetation description in section 3.1.5.

1.5 Facilities Inventory

This area has no restroom facilities. Rattlesnake Point Recreation Area has 2 camping sites, no electric or water. Users are required to take out what they bring in. Reclamation does not provide garbage collection.

1.6 Historical Background

The MU is managed primarily as a recreation area. This area has no Accessible Disability Act (ADA) facilities. Challenged recreation users are directed to Crappie Creek Recreation Area.

RMP Five Year Plan

MU 029 (Rattlesnake Point Recreation Area)

1. Annual Reclamation maintenance
 - a. Waterproof picnic tables.
 - b. Mow grass as needed
 - c. Spray noxious weeds

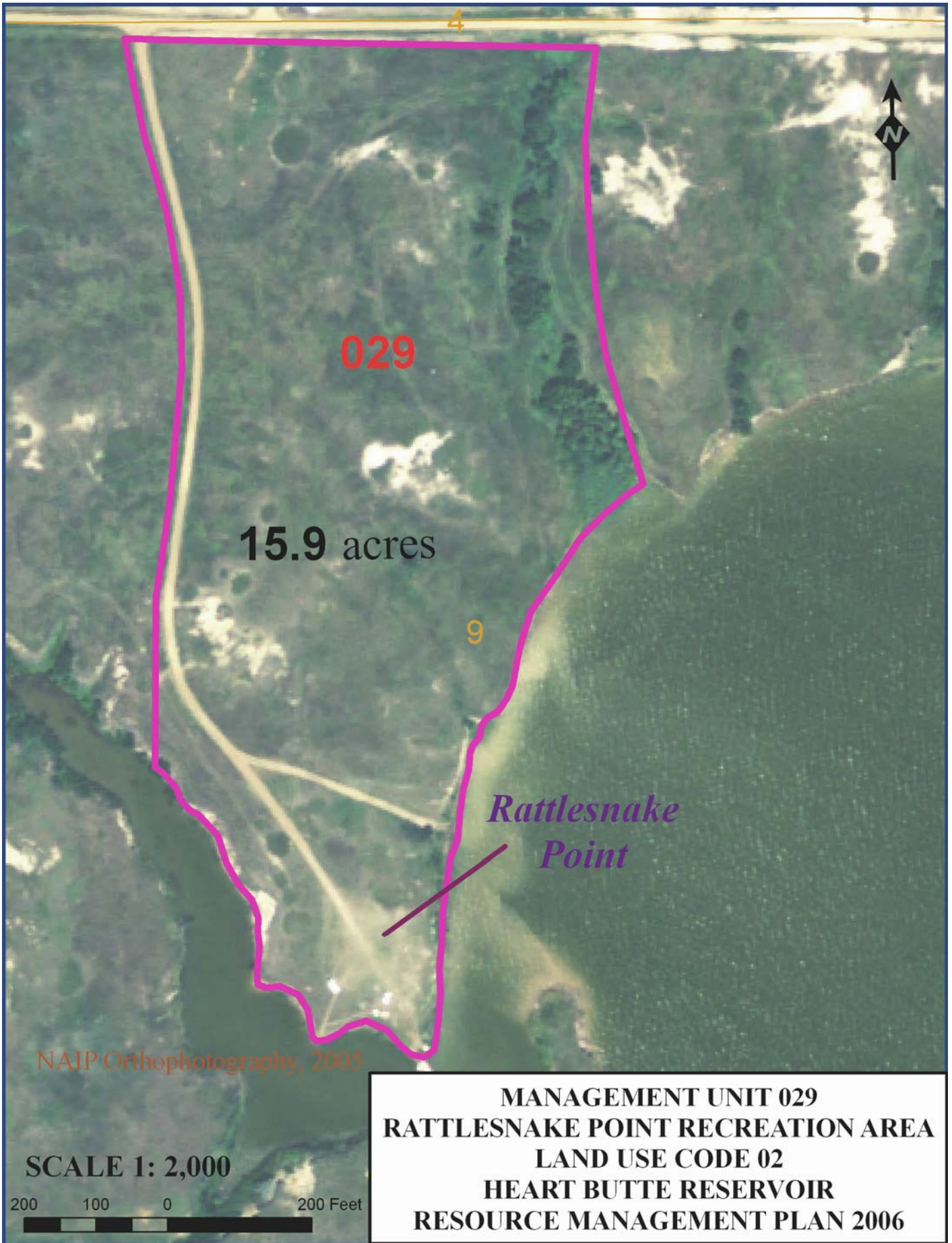
2. Annual Contractor Services
 - b. Campground Maintenance Contract
 1. Clean 2 picnic tables
 2. Clean out 2 fire-rings

2007 – 2011

No development activities are anticipated.

Long range planning

In 2004 a recreational survey was conducted on the reservoir. The top 3 facilities users want to see developed at Rattlesnake Point Recreation Area are additional campsites, improved road maintenance, and shelter belts. If these facilities were developed additional camp pads may have to be added to accommodate the additional use.



4

029

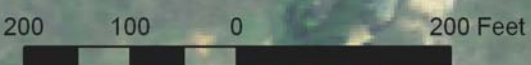
15.9 acres

9

*Rattlesnake
Point*

NAIP Orthophotography, 2005

SCALE 1: 2,000



**MANAGEMENT UNIT 029
RATTLESNAKE POINT RECREATION AREA
LAND USE CODE 02
HEART BUTTE RESERVOIR
RESOURCE MANAGEMENT PLAN 2006**

MU 030 Crappie Creek Recreation Area

Management Unit Number(MU): 030
Crappie Creek Recreation Area

Classification: 02

1.1 Goal

To manage the unit's land and vegetation to provide safe and convenient public recreation opportunities.

1.2 Location

Crappie Creek Recreation Area is north and west of the Heart Butte Dam.
49.2 acres in Sections 3 and 10 of T. 136 N., R. 89 W.
Refer to the map in appendix for exact location.

1.3 Recreation and use

Recreation activities are fishing, swimming, picnicking and camping.

1.4 Vegetation

See general vegetation description in section 3.1.5.

This management unit has been identified as containing Needle-and-Thread Mixed Prairie by the Natural Heritage Database. This habitat is ranked "Imperiled" by the Nature Conservancy District. (See Section 3.1.7, page29).

1.5 Facilities Inventory

This area has three restroom facilities (two ADA compliant). A boat ramp with courtesy dock is available for use. This area has three shelters; one shelter is for day use only (ADA). Crappie Creek Recreation Area has 37 camp sites, including one ADA compliant. There are no electric or water hook-ups. Two potable water wells with hand pumps are available for use.

1.6 Historical Background

The MU is managed primarily as a recreation area. ADA facilities have been constructed over the last few years, to be used by challenged recreation users.

RMP Five Year Plan

MU 030 (Crappie Creek Recreation Area)

1. Annual Reclamation maintenance
 - a. Installation and removal of dock (make repairs to dock and landing as needed)
 - b. Water proof picnic tables (make any needed repairs).
 - c. Blade the roads
 - d. Place and remove bay buoy
 - e. Check shoreline rip/rap and repair as needed. (**Verify with 600 Division and check for 404 permit**)
 - f. Make any needed repairs to toilets, shelters, fire rings, etc.
 - g. Spray noxious weeds (spurge, dandelion, etc.)

2. Annual Contractor Services
 - a. Garbage Collection Contract (3 dumpsters)
 - b. Campground Maintenance Contract
 1. Clean three comfort stations
 2. Clean 36 picnic tables
 3. Pressure wash 3 dumpsters
 4. Clean out 37 fire-rings
 5. Mow 6 acres of grass (as needed)
 6. Pick-up trash from grounds

2007

Construct Information Kiosk.

2008

Delineate with numbered posts.

Contract to have toilet vaults pumped out.

2009

Replace 10 picnic tables.

Re-gravel roads.

2010

Determine location of a campground host site and begin construction of the site to include:

- a. Install a septic tank with or without a drain field.
- b. Bring electricity to the site and install plug-ins.
- c. Bring water in to the site and install hook-ups.
- d. **This action will require separate NEPA/NHPA**

2011

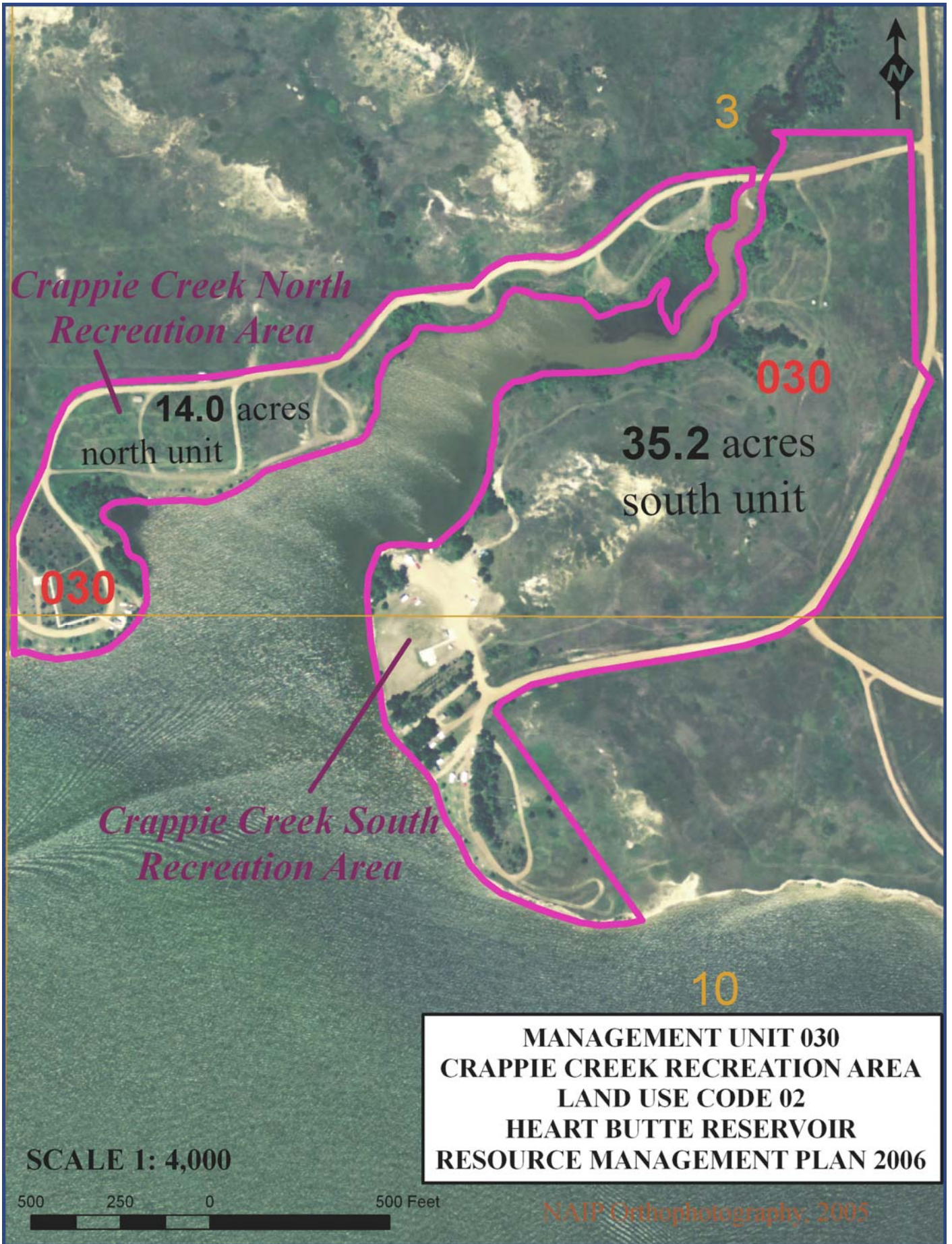
Complete the construction of the campground host campsite.

Advertise for and award the volunteer campground host position.

Replace 10 fire rings.

Long range planning

In 2004 a recreational survey was conducted on the reservoir. The top 3 features that users wanted to see developed at Crappie Creek Recreation Area were electrical campsites, a bath house, and a fish cleaning station. Other developments desired were playground equipment and a hiking/biking trail. Use may increase as a result of additional accommodations. Additional camp pads could be provided in response.



MU 036 Northshore Concession Area

Management Unit Number (MU): 036
Northshore Concession Area

Classification: 02

1.1 Goal

To manage the unit's land and vegetation to provide safe and convenient public recreation opportunities.

1.2 Location

Northshore Concession Area is north and west of the Heart Butte Dam.
13.4 acres in Section 13 of T. 136 N., R. 89 W.
Refer to the map in appendix for exact location.

1.3 Recreation and use

Recreation activities are fishing, swimming, picnicking and camping.

1.4 Vegetation

See general vegetation description in section 3.1.5.

This management unit has been identified as containing Horizontal Juniper Shrubland and Needle-and-Thread Mixed Prairie by the Natural Heritage Database. This habitat is ranked as "Vulnerable" and "Imperiled", respectively, by the Nature Conservancy District.(See Section 3.1.7, page29).

1.5 Facilities Inventory

This area has 1 restroom facility, and one fish cleaning station. One boat ramp with courtesy dock and boat fuel dock are available for use. This area has no picnic shelters but has picnic tables for day use. The area has a concession which provides gas, bait, beverages, and food. Two designated camp sites, with electric and water may be available through the concessionaire. The concession may also provide limited boat slips for rent.

1.6 Historical Background

The MU is managed primarily as a recreation area. Accessible Disability Act (ADA) facilities have been constructed in the past few years to be used by challenged recreation users.

RMP Five Year Plan

MU 036 (Northshore Concession Area)

1. Annual Reclamation maintenance
 - a. Put in and take out two docks (make repairs as needed)
 - b. Waterproof picnic tables.
 - c. Mow grass as needed
 - d. Blade the roads
 - e. Set up, maintain and winterize fish cleaning station.
 - f. Set and remove bay buoy and buoy line.

2. Annual Contractor Services
 - a. Garbage Collection Contract (1 dumpster)
 - b. Campground Maintenance Contract
 1. Clean comfort station
 2. Pressure-wash dumpster

2007

Annual maintenance

2008

Contract to have toilet vault pumped out.

2009

Annual maintenance

2010

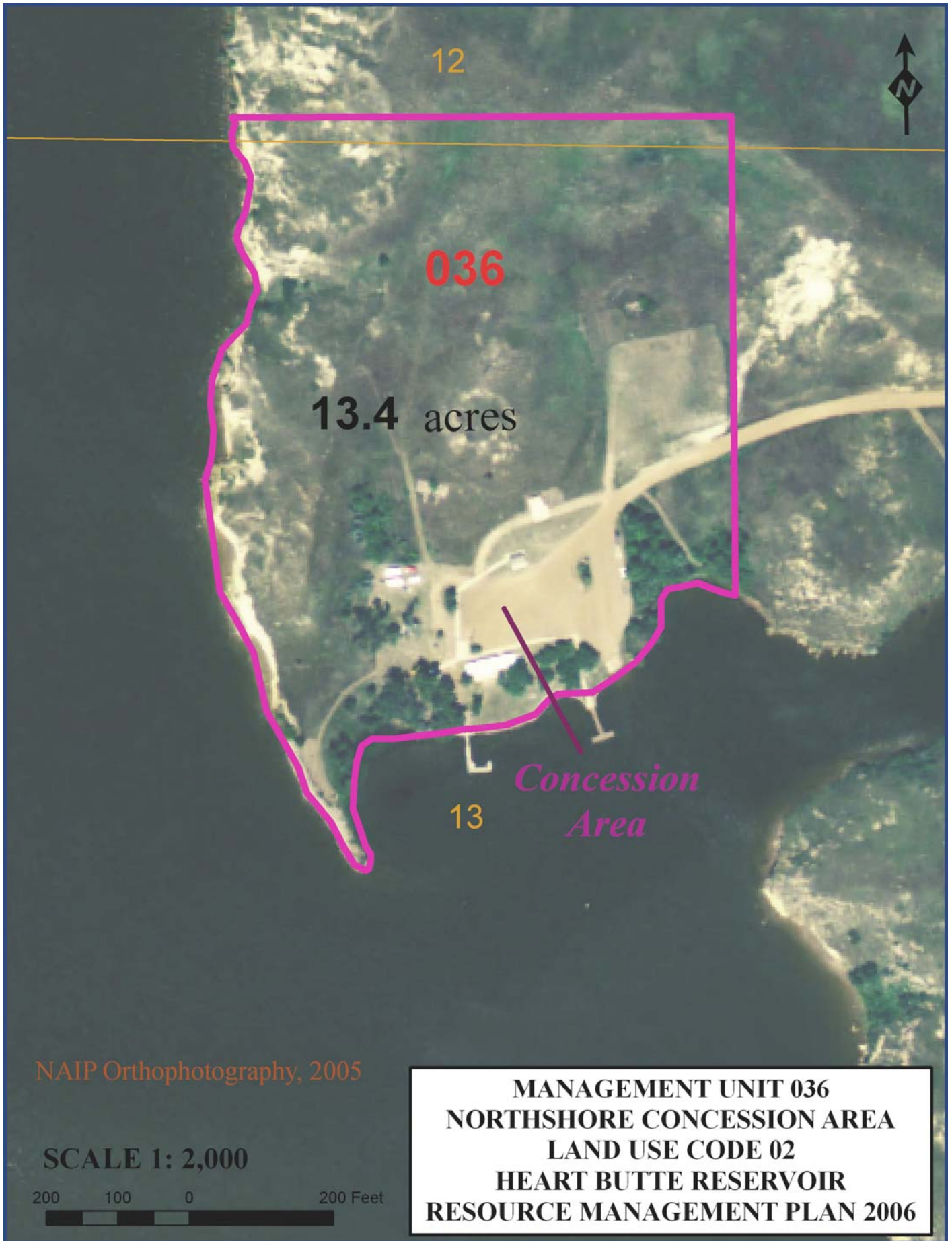
New concession contract

2011

Annual maintenance

Long range planning

In 2004 a recreational survey was conducted on the reservoir. The top 3 facilities users want to see developed at Northshore Concession Area are electrical campsites, bath house, and playground equipment. Other development notables were planting trees and hiking/biking trail. If these facilities were developed additional camp pads may have to be added to accommodate the additional use. Relocation of the concession to the Rimrock Recreation Area may make the concession more viable. Rimrock Recreation Area offers more opportunity for financial gain with a little investment by the concessionaire. A commercial services plan would have to be completed to see if this idea is feasible. **Separate NEPA compliance would be undertaken at that time.**



NAIP Orthophotography, 2005

SCALE 1: 2,000

200 100 0 200 Feet

**MANAGEMENT UNIT 036
NORTHSHORE CONCESSION AREA
LAND USE CODE 02
HEART BUTTE RESERVOIR
RESOURCE MANAGEMENT PLAN 2006**

MU 038 Downstream Recreation Area

Management Unit Number (MU): 038
Downstream Recreation Area

Classification: 02

1.1 Goal

To manage the unit's land and vegetation to provide safe and convenient public recreation opportunities.

1.2 Location

Downstream Recreation Area is east and directly below the Heart Butte Dam.
20.2 acres in Section 13 of T. 136 N., R. 89W. Refer to the map in appendix for exact location.

1.3 Recreation and use

Recreation activities are fishing, picnicking and camping.

1.4 Vegetation

Tree plantings have been added in the camping areas.

This management unit has been identified as containing Horizontal Juniper Shrubland and Needle-and-Thread Mixed Prairie by the Natural Heritage Database. This habitat is ranked as "Vulnerable" and "Imperiled", respectively, by the Nature Conservancy District. (See Section 3.1.7, page 29).

1.5 Facilities Inventory

This area has 3 restroom facilities. This area has several picnic shelters. Downstream Recreation Area has 23 camping sites, no electric or water. A pressurized potable water hydrant is available for public use.

1.6 Historical Background

The MU is managed primarily as a recreation area. ADA facilities have been constructed at this area over the last few years to be used by challenged recreation users.

RMP Five Year Plan

MU 038 (Downstream Recreation Area)

1. Annual Reclamation maintenance
 - a. Make any needed repairs to toilets, shelters, fire rings, etc.
 - b. Waterproof picnic tables (repair as needed)
 - c. Blade the roads
 - d. Trim trees as needed
 - e. Spray noxious weeds (spurge, dandelion, etc.)

2. Annual Contractor Services
 - a. Garbage Collection Contract (2 dumpsters)
 - b. Campground Maintenance Contract
 1. Clean 3 comfort stations
 2. Clean 30 picnic tables
 3. Pressure wash 2 dumpsters
 4. Clean out 23 fire-rings
 5. Mow 12 acres of grass (as needed)
 6. Pick-up trash from grounds

2007

Redesign campground layout.

Determine the location for a campground host site.

2008

Construct redesigned campground.

Contract to have toilet vaults pumped out.

2009

Begin construction of the campground host site to include:

- a. Install a septic tank with or without a drain field.
- b. Bring electricity to the site and install plug-ins.
- c. Bring water in to the site and install hook-ups.
- d. **This action will require separate NEPA/NHPA**

Replace 5 fire rings.

2010

Complete the construction of the campground host campsite.

Advertise for and award the campground host position (volunteer).

Replace 5 picnic tables.

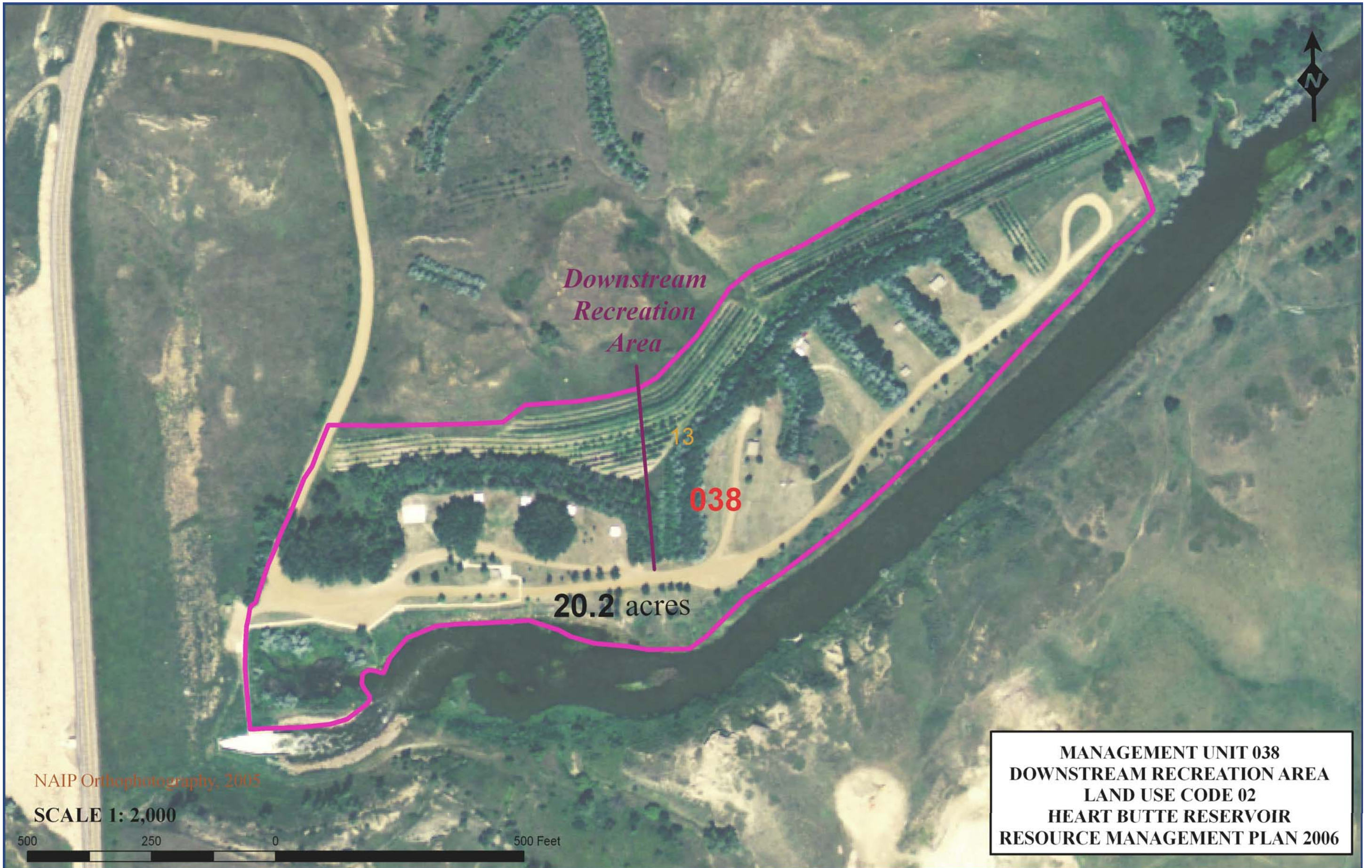
Add gravel to roads.

2011

No non-routine activities are planned.

Long range planning

In 2004 a recreational survey was conducted on the reservoir. The top 3 facilities users want to see developed at Downstream Recreation Area are electrical campsites, bath house, and Playground equipment. If these facilities are developed additional camp pads may have to be added to accommodate the additional use.



MU 039 Lake Tschida

Management Unit Number (MU): 039
Lake Tschida

Land Use Code: 02

1.1 Goal

Flood control storage and providing water for irrigation is the primary purpose for Lake Tschida. Secondary benefits include recreation and fish and wildlife.

1.2 Location

The water behind Heart Butte Dam and is known as Lake Tschida. Refer to the map in appendix for exact location.

1.3 Recreation and use

Recreation activities are swimming, boating, water skiing, fishing, ice fishing, and snowmobiling (on the lake only) in winter.

1.4 Vegetation

See general vegetation description in section 3.1.5.

1.5 Facilities Inventory

The glory hole is located in the southeast portion of the lake.

1.6 Historical Background

The lake was created by the construction of Heart Butte dam in 1949. The fishery is managed by the North Dakota Game and Fish Department (NDGFD).

RMP Five Year Plan

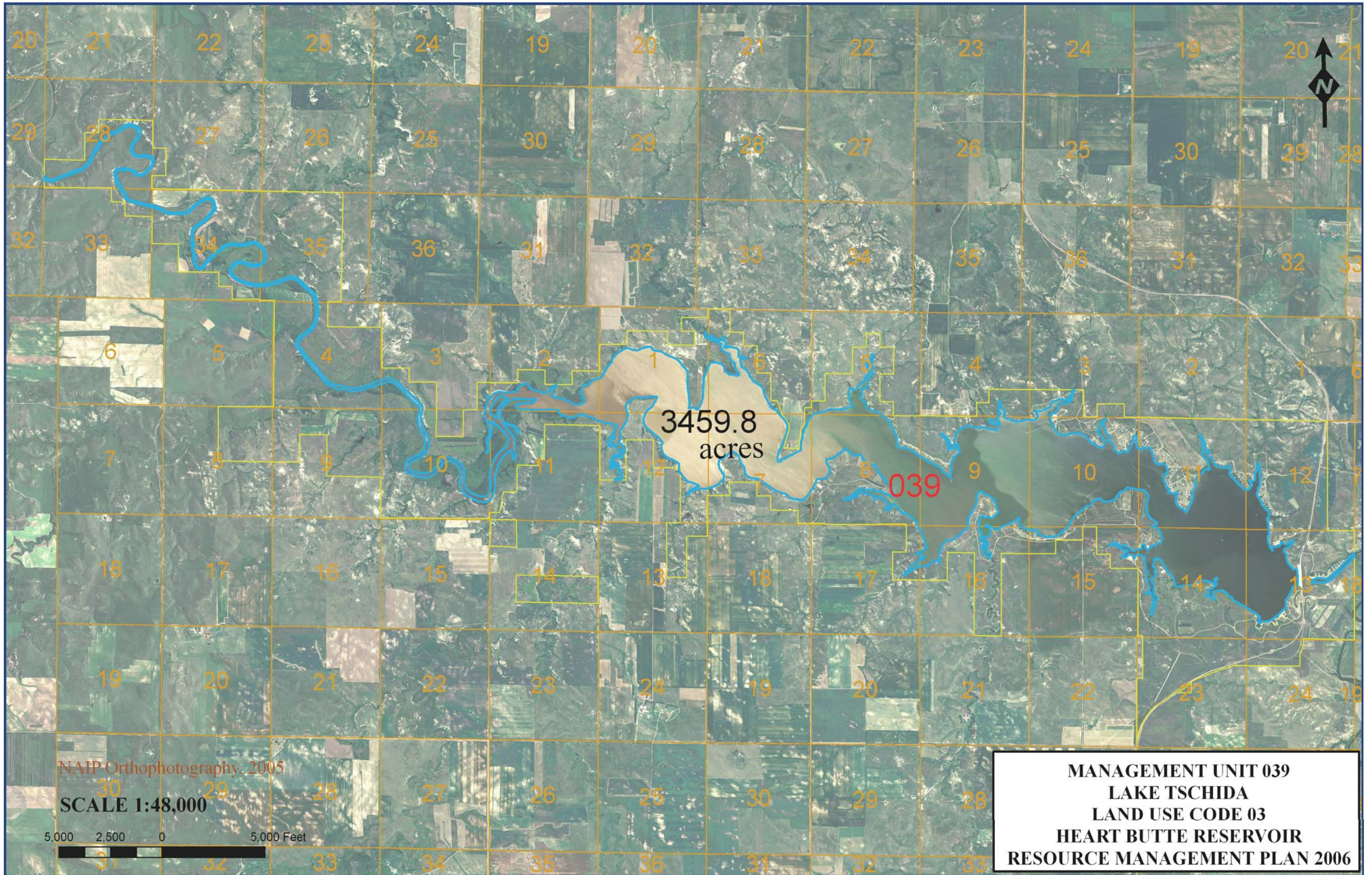
MU 039 (Lake Tschida)

2007-2011

The Reservoir will be managed in accordance with our authority.
Reclamation will follow NDGFD recommendations for fishery.

Long range planning

No long range plans at this time.



SECTION 9 GROUP USE UNITS MANAGEMENT AND DEVELOPMENT

MU 006	Boy Scouts Area
MU 007	Carson Wildlife Club
MU 008	Elgin Lions Club
MU 010	Farmers Union Camp
MU 012	Prairie Learning Center
MU 018	New Leipzig Town and Country Boosters Club

Environmental Commitments

Project revisions and project concepts that differ from those already considered under this Management Unit Packet will be considered under separate NEPA and NHPA compliance. Heart Butte Reservoir Manager must consult with DKAO Resources Division staff prior to altering approved project plans or amending approved project plans with additional project elements. Projects described in this Management Unit Packet that have not been considered under the Categorical Exclusion Checklist – DK600-06-58 or have been conceived following the completion of the Heart Butte RMP will be considered under separate NEPA analysis.

MU 006 Boy Scouts Area

Management Unit Number (MU): 006
Boy Scouts Area

Classification: 04

1.1 Goal

To manage the unit's land and vegetation to provide a diversity of wildlife and their associated habitat; this in turn provides public recreation opportunities.

1.2 Location

The area is located in the southeast portion of the Reservoir public land boundary, bordered on the north and west by Heart Butte Reservoir and the south and east by MU 005.

179.6 acres of Section 14 in T. 136 N., R. 89 W.

Refer to the map in the appendix for an exact location.

1.3 Recreation and Use

The entire area, with the exception of an approximately 10-acre area immediately east of the main lodge, will be open to the general public when scouting activities are not scheduled. The 10-acre tract will be reserved for small scout group activities without the need to schedule through Reclamation. Public use includes bird watching, camping, hiking, and shore fishing.

The area is closed to hunting. Mature tree shelterbelts and planted wildlife food plots provide cover and food for resident wildlife, throughout the winter months.

Portions of the area requiring ground cover maintenance and litter removal may be contracted out to local landowners for grazing, and/or haying.

1.4 Vegetation

This MU contains a managed food plot and tree rows.

Leafy spurge is abundant in this unit.

This management unit has been identified as containing Horizontal Juniper Shrubland by the Natural Heritage Database. This habitat is ranked as "Vulnerable" by the Nature Conservancy District. (See Section 3.1.7, page29).

1.5 Facilities Inventory

Boy Scouts of America (BSA) facilities include a main lodge, storage building, chapel, archery range, several shelters and outhouses. ADA fishing pier and vault toilets are available for use by the public in this unit.

1.6 Historical Background

An agreement to permit BSA activities was issued by the North Dakota Game and Fish Department, the managing agency at that time, on April 23rd, 1957. It was a 24-year lease of 200

acres for \$1.00 per year. Beginning Jan. 1, 1979 the area was permitted between BSA and Reclamation. Five-year contracts for \$100.00 have been issued with no annual fee.

The MU was originally managed primarily for organized Boy Scouts activities. Public use of the area, with the exception of an approximately 10-acre area immediately east of the main lodge, has been permitted since mid 1990's when adjacent camping areas became overcrowded, especially during the memorial day and labor day holiday weekends.

The area also serves as a wildlife shelter as no hunting is permitted.

Extreme noxious weed infestation, primarily leafy spurge, has been controlled biologically with flea beetles in conjunction with spraying by Reclamation staff.

RMP Five Year Plan

Unit 006 (Boy Scouts Area)

2007 - 2011

Continue the haying permit that exchanges haying for planting wildlife food plots on public land. Reclamation staff will inspect the site annually for permit compliance, which includes safety related measures because this is a public used facility.

Perform noxious weed control operations.

Long range planning

Continue to perform noxious weed control operations.

An additional roll-in fishing pier may be purchased and installed in the west bay, is being considered if funding can be obtained (NDGFD match).



MU 007 Carson Wildlife Club

Management Unit Number (MU): 007
Carson Wildlife Club

Classification: 04

1.1 Goal

The Permittee shall continue to provide open membership public recreation opportunities at the site.

1.2 Location

The 4.1-acre area is located in the northeast portion of Section 15, T. 136 N., R. 89 W. MU 007 is bordered on the north by Heart Butte Reservoir, on the west and south by MU 011, and on the east by MU 005. Refer to the map in the appendix for an exact location.

1.3 Recreation and Use

The primary use of the premises is for organized group activities. The Permittee shall maintain an open membership policy granting short term use of the area to other individuals. Members shall pay a fee, to use the electricity and constructed facilities. Camping and shore fishing are two main uses at the site.

1.4 Vegetation

See general vegetation description in section 3.1.5.

This management unit has been identified as containing Smooth Cliffbrake –fern by the Natural Heritage Database. This habitat is ranked “Apparently Secure” by the Nature Conservancy District. (See Section 3.1.7, page29).

1.5 Facilities Inventory

Permitted facilities include:

A shelter,
A outhouse,
fire rings,
electrical hookups
and boat ramps.

There are no additional Reclamation facilities in this unit.

1.6 Historical Background

An agreement was first permitted January 20, 1977 between the Carson Wildlife Club and the Department to use 8 acres for group use activities @ \$75.00 per year. Reclamation began issuing the permit in January 1, 1979. The use fee in 2006 was \$145.00 per year. The use acreage for the permitted site was reduced to 4.1 acres in 2006 and the future use fee will be reduced to \$90.00.

RMP Five Year Plan

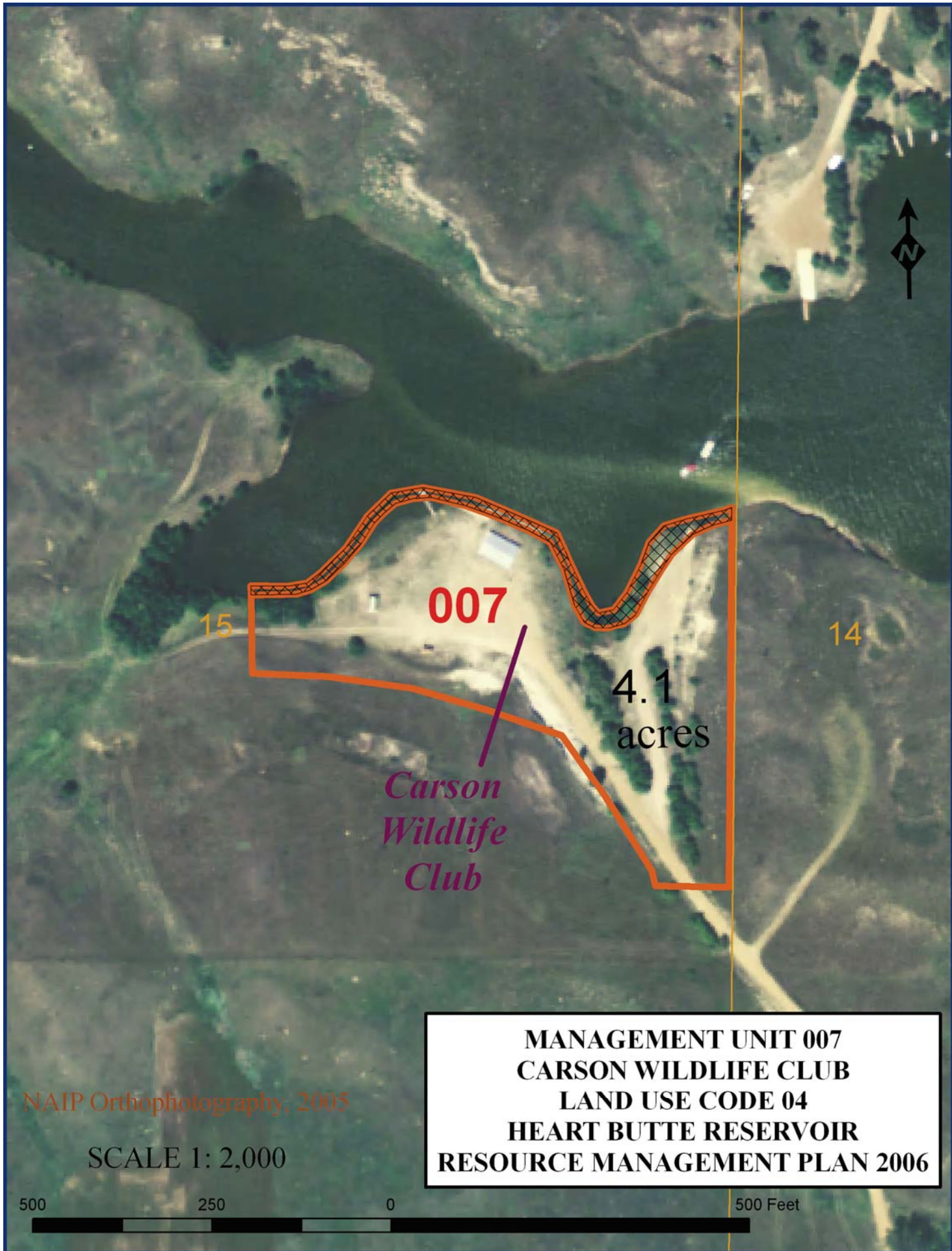
Unit 007 (Carson Wildlife Club)

2007 - 2011

Reclamation will conduct a permit compliance inspection each year to ensure public safety.

Long range planning

Continue as above.



MU 008 Elgin Lions Club

Management Unit Number (MU): 008
Elgin Lions Club

Classification: 04

1.1 Goal

The Permittee shall continue to provide open membership public recreation opportunities at the site.

1.2 Location

The 2.6 acre area is located in the northeast portion of Section 14, T. 136 N., R. 89 W. MU 008 is bordered on the north by MU 009, on the east and south by Heart Butte Reservoir .and on the west by MU 011. Refer to the map in the appendix for an exact location.

1.3 Recreation and Use

The primary use of the premises is for organized group activities. The Permittee shall maintain an open membership policy granting short term use of the area to other individuals. Members shall pay a fee, to use the electricity and constructed facilities. Camping and shore fishing are two main uses at the site.

1.4 Vegetation

See general vegetation description in section 3.1.5.

This management unit has been identified as containing Smooth Cliffbrake –fern by the Natural Heritage Database. This habitat is ranked “Apparently Secure” by the Nature Conservancy District. (See Section 3.1.7, page 29).

1.5 Facilities Inventory

Permitted facilities include: a shelter, ADA restroom, boat landing with dock, and electrical hookups.

There are no additional Reclamation facilities in this unit.

1.6 Historical Background

An agreement was first permitted January 20, 1977 between the Elgin Lions Club and the Department to use 5 acres for group use activities @ \$75.00 per year. Reclamation began issuing the permit in January 1, 1979. The use fee in 2006 was \$90.00 per year.

RMP Five Year Plan

Unit 008 (Elgin Lions Club)

2007 -2011

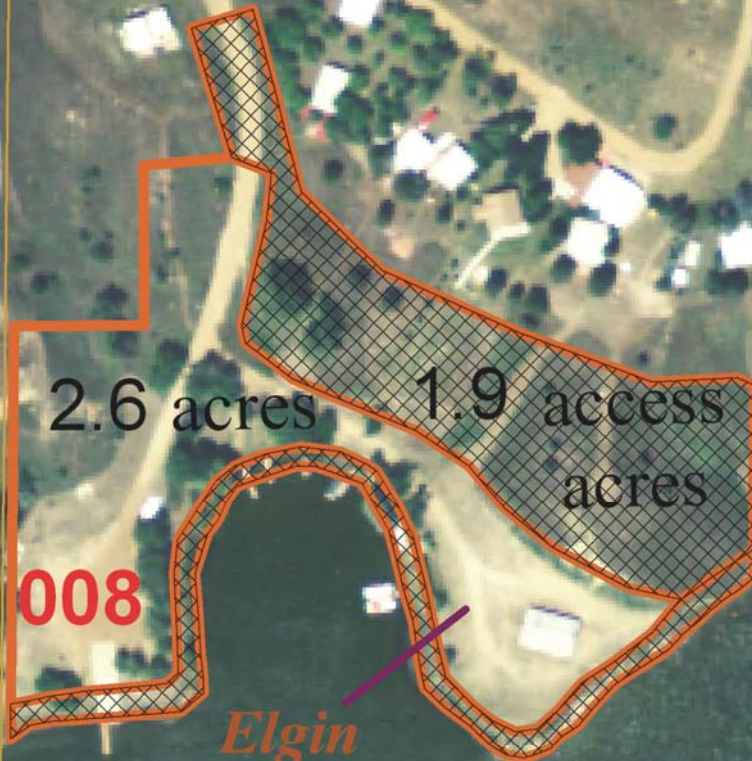
Reclamation will conduct a permit compliance inspection each year to ensure public safety.

Long Range Planning

Continue as above.

The Elgin Lions Club plans to riprap the shoreline. No firm date has been set.

Reclamation will require Elgin Lions Club to contact Bismarck Regulatory Office, (701)255-0015, regarding a 404 permit.



2.6 acres

1.9 access acres

008

*Elgin
Lions
Club*

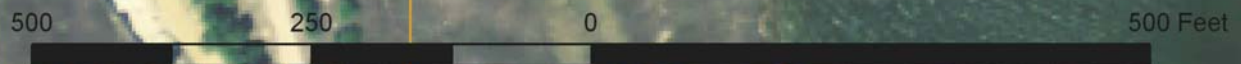
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14

**MANAGEMENT UNIT 008
ELGIN LIONS CLUB
LAND USE CODE 04
HEART BUTTE RESERVOIR
RESOURCE MANAGEMENT PLAN 2006**

NAIP Orthophotography, 2005

SCALE 1: 2,000



MU 010 Farmers Union Camp

Management Unit Number (MU): 010
Farmers Union Camp

Classification: 04

1.1 Goal

The Permittee shall continue to provide open membership public recreation opportunities at the site.

1.2 Location

The 17-acre unfenced area is located in the southeast portion of Section 10, T. 136 N., R. 89 W. MU 010 is bordered on the north by Heart Butte Reservoir and on the remainder by MU 011. Refer to the map in the appendix for an exact location.

1.3 Recreation and Use

The primary use of the premises is for organized youth activities. The Permittee provides an organized summer camp for youth. Camping, volleyball, basketball, softball, miniature golf, swimming and shore fishing are a few of the activities available. The Permittee is allowed to charge others to use its facilities and electricity.

1.4 Vegetation

See general vegetation description in section 3.1.5.

This management unit has been identified as containing Needle-and-Thread Mixed Grass Prairies by the Natural Heritage Database. This habitat is ranked “Imperiled” by the Nature Conservancy District. (See Section 3.1.7, page 29).

1.5 Facilities Inventory

Permitted facilities include:

two bunkhouses,
a counselor’s cabin,
mess hall
garage
and storage shed.

There are no Reclamation facilities in this unit.

1.6 Historical Background

There is no known record of the first permitted agreement between the Farmers Union Camp and the NDGFD. Reclamation began issuing the permit in January 1, 1979, for group use activities @ \$75.00 per year. The use fee in 2006 was \$160.

The area is operated as a summer camp for youth from across the entire State. The general public has access to the shoreline through the area.

RMP Five Year Plan

Unit 010 (Farmers Union Camp)

2007 -2011

Reclamation will conduct a permit compliance inspection each year to ensure public safety. Permittee may try to improve beach access by constructing a seasonal stairway/walkway – **this will require an approved project application and NEPA compliance.**

Long Range Planning

Continue inspections as above.



*Farmers
Union
Youth
Camp*



2.5
access
acres

10

17.1 acres

010

NAIP Orthophotography, 2005

SCALE 1: 2,000

**MANAGEMENT UNIT 010
FARMERS UNION YOUTH CAMP
LAND USE CODE 04
HEART BUTTE RESERVOIR
RESOURCE MANAGEMENT PLAN 2006**

500 250 0 500 Feet



MU 012 Prairie Learning Center

Management Unit Number (MU): 012
Prairie Learning Center

Classification: 04

1.1 Goal

The Permittee shall provide open membership public recreation opportunities at the site.

1.2 Location

The 5-acre fenced area is located in the southwest portion of Section 10, T. 136 N., R. 89 W. MU 012 is bordered on the northwest by Heart Butte Reservoir, and on the remainder by MU 011. Refer to the map in the appendix for an exact location.

1.3 Recreation and Use

The primary use of the premises is for organized youth activities. Camping, swimming, canoeing and shore fishing are main uses at the site. The Permittee may charge fees to use its managed facilities and electricity.

1.4 Vegetation

See general vegetation description in section 3.1.5.

This management unit has been identified as containing Needle-and-Thread Mixed Grass Prairies by the Natural Heritage Database. This habitat is ranked “Imperiled” by the Nature Conservancy District. (See Section 3.1.7, page 29).

1.5 Facilities Inventory

One cabin and one outhouse exist at the site.
There are no Reclamation facilities in this unit

1.6 Historical Background

The first known record of a permitted agreement occurred between the State Industrial School Site and the NDGFD on January 20, 1977. Reclamation began issuing the permit on January 1, 1979, for group use activities @ \$75.00 per year. The State Industrial School has changed its name to the Prairie Learning Center. The youth from the Center use the area. The use fee in 2006 was \$90.

RMP Five Year Plan

Unit 012 (Prairie Learning Center)

2007 -2011

Reclamation will conduct a permit compliance inspection each year to ensure public safety.

Long Range Planning

Continue inspections as above.

Prairie Learning Center proposes to work with the North Dakota Army National Guard to repair and rebuild their access road when funding is available. **Reclamation will require a review of North Dakota Army National Guard NEPA document and plans.**



10

5.1 acres

012

Prairie Learning Center

**MANAGEMENT UNIT 012
PRAIRIE LEARNING CENTER
LAND USE CODE 04
HEART BUTTE RESERVOIR
RESOURCE MANAGEMENT PLAN 2006**

NAIP Orthophotography, 2005

SCALE 1: 2,000

500 250 0 500 Feet

MU 018 New Leipzig Town and Country Boosters Club

Management Unit Number (MU): 018
New Leipzig Town and Country Boosters
Club

Classification: 04

1.1 Goal

The Permittee shall continue to provide open membership public recreation opportunities at the site.

1.2 Location

The 2.2-acre area is located in the central portion of Section 8, T. 136 N., R. 89 W. MU 018 is bordered on the north and east by MU019, by Heart Butte Reservoir, on the south and by MU017 on the west. Refer to the map in the appendix for an exact location.

1.3 Recreation and Use

The primary use of the premises is for organized group activities. The Permittee shall maintain an open membership policy granting short term use of the area to other individuals. Members shall pay a fee, to use the electricity and constructed facilities. The Permittee may charge others fees to use their managed facilities and electricity. Camping and shore fishing are two main uses at the site.

1.4 Vegetation

See general vegetation description in section 3.1.5

1.5 Facilities Inventory

A shelter, fire rings and boat landing with dock belong to the permittee.
There are no Reclamation facilities in this unit.

1.6 Historical Background

The first permitted agreement between the New Leipzig Town and Country Boosters Club and the NDGFD was issued January 20, 1977. Reclamation began issuing the permit in January 1, 1979, for group use activities @ \$75.00 per year. The use fee in 2006 was \$60.

RMP Five Year Plan

Unit 018 (New Leipzig Town and Country Boosters Club)

2007 -2011

Reclamation will conduct a permit compliance inspection each year to ensure public safety.

Long Range Planning

Continue inspections as above.



*New Leipzig
Town & Country
Boosters Club*

2.2 acres

018

access
acres

NAIP Orthophotography, 2005

**MANAGEMENT UNIT 018
NEW LEIPZIG TOWN & COUNTRY RECREATION AREA
LAND USE CODE 04
HEART BUTTE RESERVOIR
RESOURCE MANAGEMENT PLAN 2006**

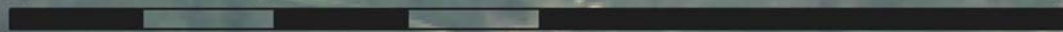
SCALE 1: 2,000

500

250

0

500 Feet



SECTION 10 CABIN AND TRAILER SITE UNITS MANAGEMENT AND DEVELOPMENT

MU 009	Cabin Area 4
MU 014	South Side Trailer Area
MU 019	Cabin Area 1
MU 032	Cabin Areas 2 and 3
MU 034	Trailer Areas 1 and 2

Environmental Commitments

Project revisions and project concepts that differ from those already considered under this Management Unit Packet will be considered under separate NEPA and NHPA compliance. Heart Butte Reservoir Manager must consult with Reclamation's DKAO Resources Division staff prior to altering approved project plans or amending approved project plans with additional project elements. Projects described in this Management Unit Packet that have not been considered under the Categorical Exclusion Checklist – DK600-06-58 or have been conceived following the completion of the Heart Butte Reservoir RMP will be considered under separate NEPA analysis.

MU 009 Cabin Area 4

Land use code: 05

Management Unit Number (MU): 009
Cabin Area 4

1.1 Goal

To manage the unit's land for 10 seasonal recreation cabin units by permit. The permit grants no vested property rights but affords only a limited license to occupy the land, pending a greater public use. The Permittee shall use the land in such a manner to promote acceptable conservation of the land. Safety and land based environmental health considerations are enforced subject to the terms and condition of a permit. The shoreline and access to the shoreline will, at all times, be open to the public.

1.2 Location

Cabin Area 4 is west of the Heart Butte Dam on the south side of the Reservoir. 9.5 acres plus 6.4 access acres in Section 14 of T. 136 N., R. 89 W. Refer to the map in appendix for exact location.

1.3 Recreation and use

Recreation activities are wildlife viewing, fishing, swimming, picnicking, sailing and boating.

1.4 Vegetation

See general vegetation description in section 3.1.5.

This management unit has been identified as containing Horizontal Juniper Shrubland by the Natural Heritage Database. This habitat is ranked "Vulnerable" by the Nature Conservancy District. (See Section 3.1.7, page 29).

1.5 Facilities Inventory

There are no additional Reclamation facilities in this unit.

1.6 Historical Background

The MU is managed primarily as a recreational homesite/camping area occupied by ten permittees. The permittees purchased electrical water and sewer facilities for their private homes constructed on public lands. The NDGFD began managing the cabin area for Reclamation in the 1950's. The NDGFD discontinued recreation management on May 25, 1979. Reclamation continued issuing permits. Permits have been renewed every 5 years to 10 occupants. A copy of the permit is located in the appendix.

Detailed plans or drawings, a schedule for completion, and requests to construct buildings or undertake cabin sit developments must be submitted by the Permittee to Reclamation at least 60 days prior to initiation of the proposed development activity.

RMP Five Year Plan

MU 009 (Cabin Area 4)

1. Administer the 10 cabin site permits.
 - a. Issue permits, collect annual fees, respond to customer correspondence dealing with Reclamation policy, directives and standards, and issue building and construction permits.
 - b. All ground disturbing construction activities to be conducted by the permittees or their contractors will require NEPA and NHPA compliance.**

2. Monitor use of the cabin sites
 - a. Verify that cabin sites are visibly marked with cabin lot number.
 - b. Conduct routine spot inspections of electrical hookups of water systems that provide reservoir water to cabin sites for domestic purposes.
 - c. Check that off-site encroachment of private trailers, campers, boats does not occur. Permittees can obtain off-site access permits from Reclamation by written request.

3. Reclamation will perform road maintenance on interior roads leading to the cabin sites. Work will consist of blading roads, vegetation control on the roads, graveling the road surface when needed, seeding side slopes, repairing erosion, repairing or replacing culverts, and other general maintenance activities. Approximately four blading trips are conducted annually.

2007

Administer cabin permits as required.

2008

Administer cabin permits as required.

2009

Administer cabin permits as required.
Conduct detailed inspection of cabin sites to ensure permit compliance.

2010

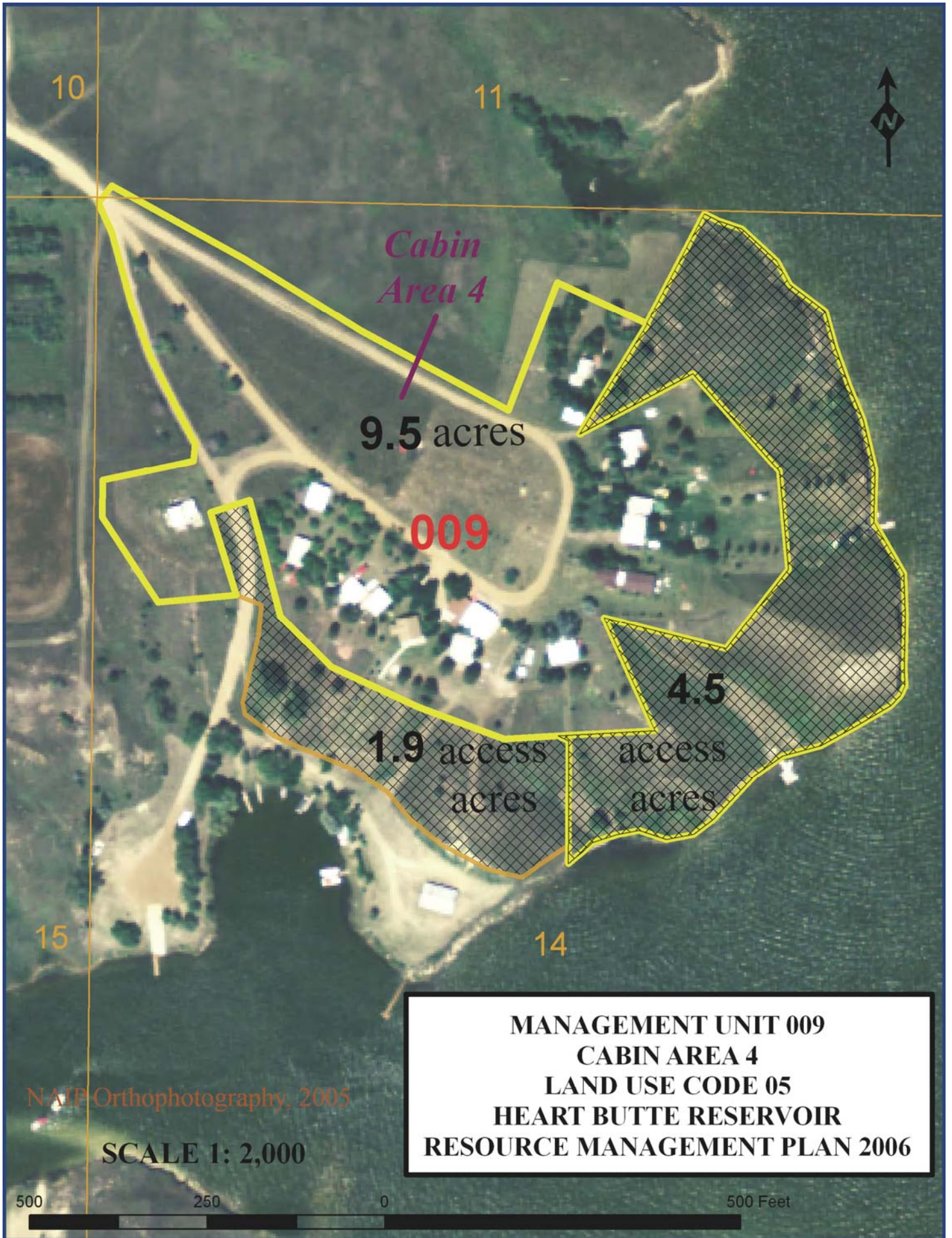
Administer cabin permits as required.
Renew cabin permits for an additional 5 years.

2011

Administer cabin permits as required.

Long Range Planning

Administer cabin permits as required.



10

11



Cabin Area 4

9.5 acres

009

1.9 access acres

4.5 access acres

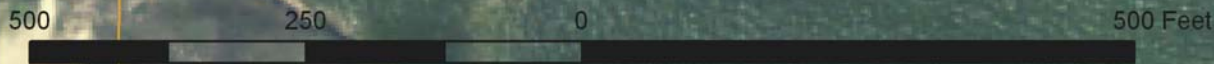
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14

NAIP Orthophotography, 2005

SCALE 1: 2,000

**MANAGEMENT UNIT 009
CABIN AREA 4
LAND USE CODE 05
HEART BUTTE RESERVOIR
RESOURCE MANAGEMENT PLAN 2006**



MU 014 South Side Trailer Area

Management Unit Number (MU): 014
South Side Trailer Area

Land use code: 05

1.1 Goal

To manage the unit's land for 32 seasonal recreation trailer units by permit. The permit grants no vested property rights but affords only a limited license to occupy the land, pending a greater public use. The Permittee shall use the land in such a manner to promote acceptable conservation of the land. Safety and land based environmental health considerations are enforced subject to the terms and condition of a permit. The shoreline and access to the shoreline will, at all times, be open to the public.

1.2 Location

South Side Trailer Area is west of the Heart Butte Dam on the south side of the Reservoir. 13.9 acres plus 16.2 access acres in Sections 9, 15 &16, of T. 136 N., R. 89 W. Refer to the map in appendix for exact location.

1.3 Recreation and use

Recreation activities include wildlife viewing, fishing, swimming, picnicking, sailing and boating.

1.4 Vegetation

See general vegetation description in section 3.1.5.

This management unit has been identified as containing Smooth Cliffbrake-fern by the Natural Heritage Database. This habitat is ranked "Apparently Secure" by the Nature Conservancy District. (See Section 3.1.7, page 29).

1.5 Facilities Inventory

Reclamation maintains one outhouse for public use in the public area across the road from trailer lot 20.

1.6 Historical Background

The MU is managed primarily as a recreational home site/camping area occupied by thirty two permittees. The permittees purchased electrical water and sewer facilities for their private homes constructed on public lands. The NDGFD began managing the cabin area for Reclamation in the 1950's. The NDGFD discontinued recreation management on May 25, 1979. Reclamation continued issuing permits. Permits have been renewed every 5 years to 10 occupied users. A copy of the permit is located in the appendix.

Detailed plans or drawings, a schedule for completion, and requests to construct buildings or undertake cabin sit developments must be submitted by the Permittee to Reclamation at least 60 days prior to initiation of the proposed development activity.

RMP Five Year Plan

MU 014 (South Side Trailer Area)

1. Administer the 32 trailer site permits.
 - a. Issue permits, collect annual fees, respond to customer correspondence dealing with Reclamation policy, directives and standards, and issue building and construction permits.
 - b. **All anticipated ground disturbing construction activities to be conducted by the Permittees or their contractors will require NEPA and NHPA compliance.**

2. Monitor use of the cabin sites
 - a. Verify that cabin sites are visibly marked with cabin lot number.
 - b. Conduct routine spot inspections of electrical hookups of water systems that provide reservoir water to cabin sites for domestic purposes.
 - c. Check that off-site encroachment of private trailers, campers, boats does not occur. Permittees can obtain off-site access permits from Reclamation by written request.

3. Reclamation will perform road maintenance on interior roads leading to the cabin sites. Work will consist of blading roads, vegetation control on the roads, graveling the road surface when needed, seeding side slopes, repairing erosion, repairing or replacing culverts, and other general maintenance activities. Approximately four blading trips are conducted annually.

2007 & 2008

Administer cabin permits as required.
No additional work planned.

2009

Administer cabin permits as required.
Conduct detailed inspection of cabin sites to ensure permit compliance.

2010

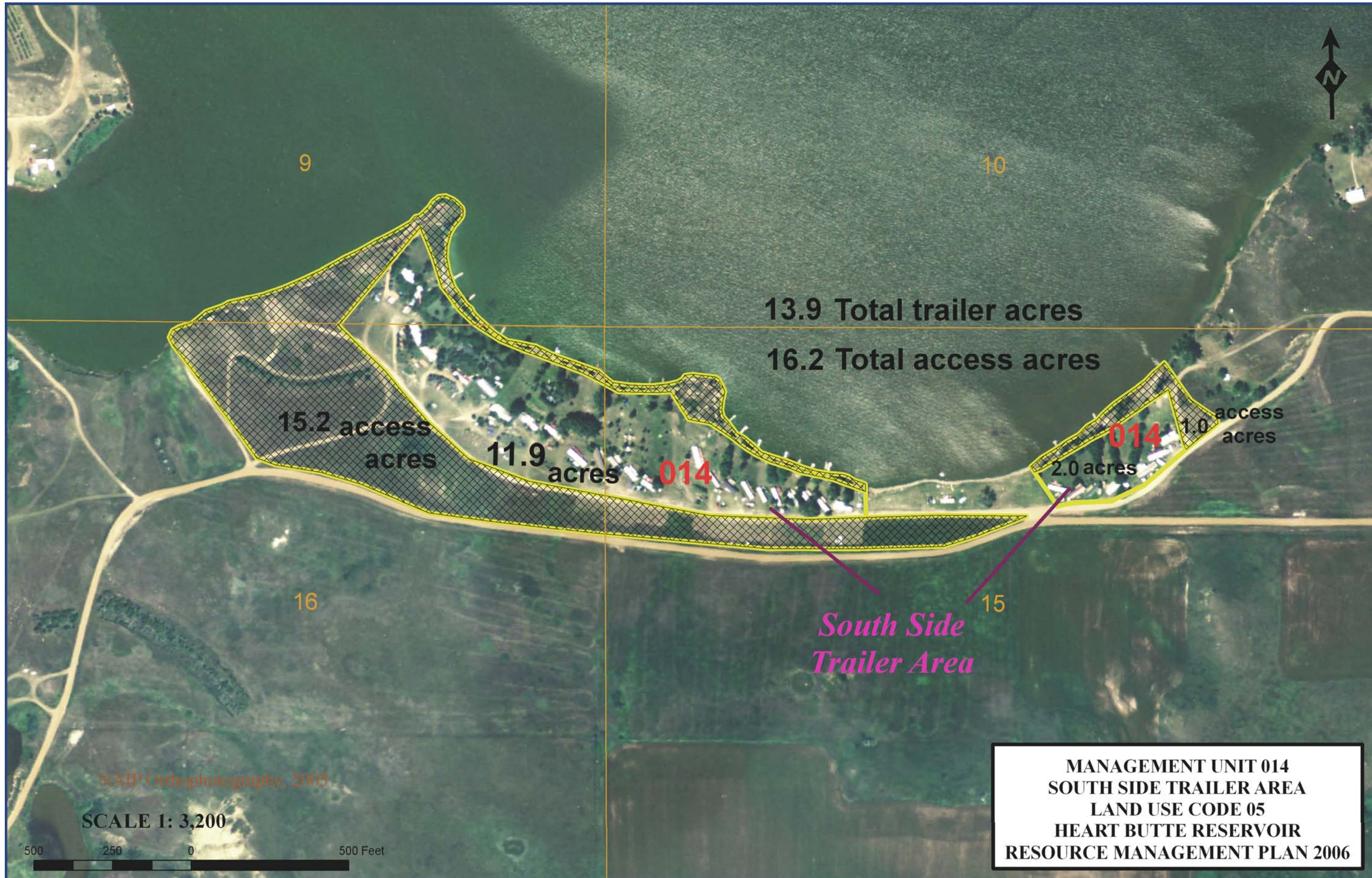
Administer cabin permits as required.

2011

Administer cabin permits as required.

Long Range Planning

Roads will need additional gravel from time to time.



MU 019 Cabin Area 1

Management Unit Number (MU): 019
Cabin Area 1

Land use code: 05

1.1 Goal

To manage the unit's land for 19 seasonal recreation cabin units by permit. The permit grants no vested property rights but affords only a limited license to occupy the land, pending a greater public use. The Permittee shall use the land in such a manner to promote acceptable conservation of the land. Safety and land based environmental health considerations are enforced subject to the terms and condition of a permit. The shoreline and access to the shoreline will, at all times, be open to the public.

1.2 Location

Cabin Area 1 is west of the Heart Butte Dam on the south side of the Reservoir.

17.1 acres plus 24.6 access acres in Section 8, of T. 136 N., R. 89 W.

Refer to the map in appendix for exact location.

1.3 Recreation and use

Recreation activities include wildlife viewing, fishing, swimming, picnicking, sailing and boating.

1.4 Vegetation

See general vegetation description in section 3.1.5.

1.5 Facilities Inventory

There are no additional Reclamation facilities in this unit.

1.6 Historical Background

The MU is managed primarily as a recreational home site/camping area occupied by nineteen permittees. The permittees purchased electrical water and sewer facilities for their private homes constructed on public lands. The NDGFD began managing the cabin area for Reclamation in the 1950's. The NDGFD discontinued recreation management on May 25, 1979. Reclamation continued issuing permits. Permits have been renewed every 5 years to 19 occupied users. A copy of the permit is located in the appendix.

Detailed plans or drawings, a schedule for completion, and requests to construct buildings or undertake cabin sit developments must be submitted by the Permittee to Reclamation at least 60 days prior to initiation of the proposed development activity.

RMP Five Year Plan

MU 019 (Cabin Area 1)

1. Administer the 19 cabin site permits.
 - a. Issue permits, collect annual fees, respond to customer correspondence dealing with Reclamation policy, directives and standards, and issue building and construction permits.
 - b. **All anticipated ground disturbing construction activities to be conducted by the permittees or their contractors will require NEPA and NHPA compliance.**
2. Monitor use of the cabin sites
 - a. Verify that cabin sites are visibly marked with cabin lot number.
 - b. Conduct routine spot inspections of electrical hookups of water systems that provide reservoir water to cabin sites for domestic purposes.
 - c. Check that off-site encroachment of private trailers, campers, boats does not occur. Permittees can obtain off-site access permits from Reclamation by written request.
3. Reclamation will perform road maintenance on interior roads leading to the cabin sites. Work will consist of blading roads, vegetation control on the roads, graveling the road surface when needed, seeding side slopes, repairing erosion, repairing or replacing culverts, and other general maintenance activities. Approximately four blading trips are conducted annually. Reclamation will also perform noxious weed control in public areas.

2007

Administer cabin permits as required.

Implement haying for food plot contract in public areas (hay every 4 years).

2008

Administer cabin permits as required.

2009

Administer cabin permits as required.

Hay public areas for the first time

Conduct detailed inspection of cabin sites to ensure permit compliance.

2010

Administer cabin permits as required.

Renew cabin permits for an additional 5 years.

2011

Administer cabin permits as required.

Long Range Planning

Continue to administer and monitor cabin permits.

Continue to hay every 4 years.

Continue to monitor area for noxious weeds and control as needed.



MANAGEMENT UNIT 019
CABIN AREA 1
LAND USE CODE 05
HEART BUTTE RESERVOIR
RESOURCE MANAGEMENT PLAN 2006

21.5 access
acres

1.2

019

019

2.3

019

*Cabin
Area 1*

8

17.1 Total cabin acres

24.6 Total access acres

6.8

019

1.3

3.1

access
acres

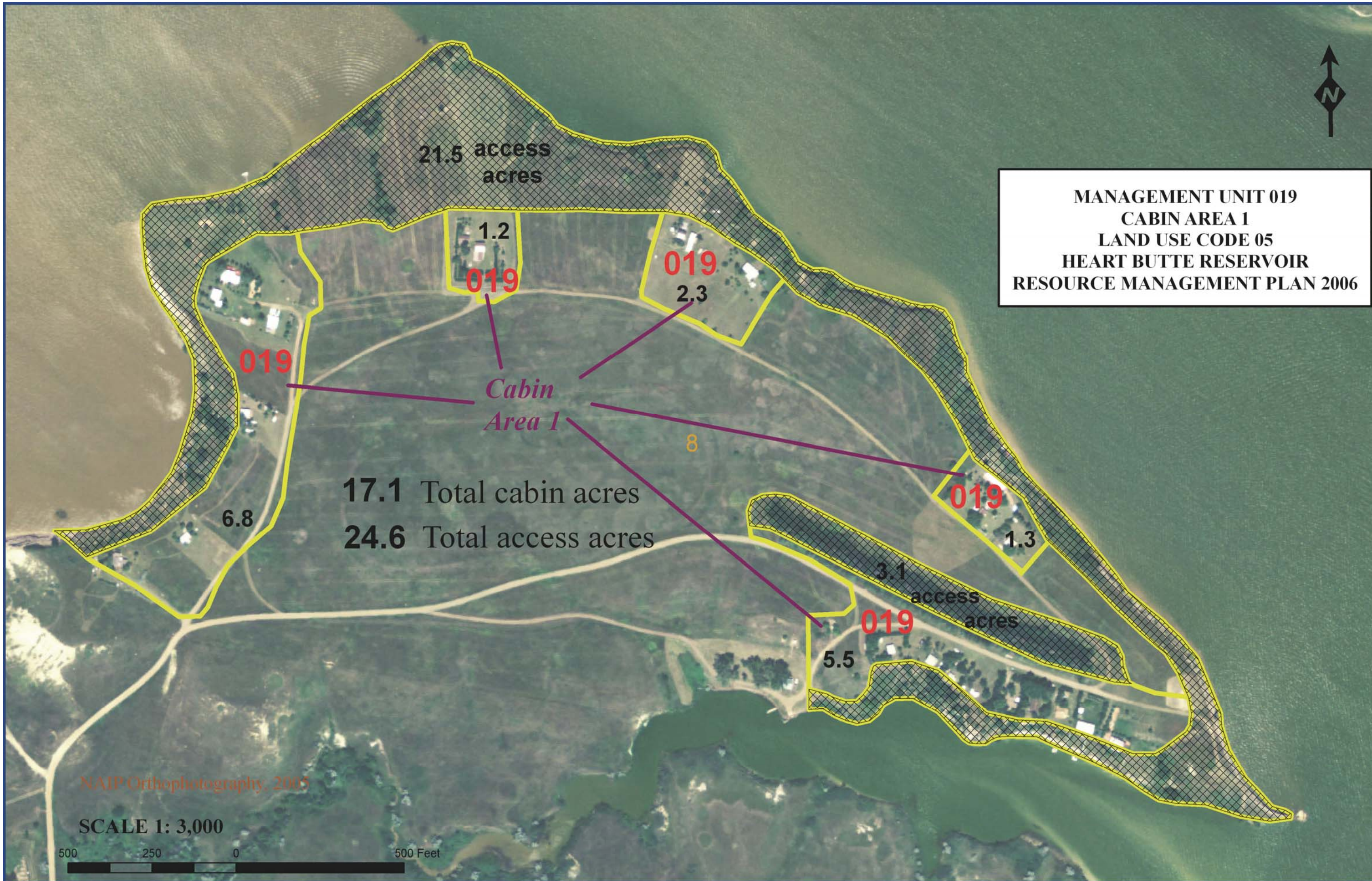
019

5.5

NAIP Orthophotography, 2005

SCALE 1: 3,000

500 250 0 500 Feet



MU 032 Cabin Areas 2& 3

Management Unit Number (MU): 032
Cabin Areas 2 & 3

Land use code: 05

1.1 Goal

To manage the unit's land for 81 seasonal recreation cabin units by permit. The permit grants no vested property rights but affords only a limited license to occupy the land, pending a greater public use. The Permittee shall use the land in such a manner to promote acceptable conservation of the land. Safety and land based environmental health considerations are enforced subject to the terms and condition of a permit. The shoreline and access to the shoreline will, at all times, be open to the public.

1.2 Location

Cabin Area 2 and Cabin Area 3 are west of the Heart Butte Dam on the North side of the Reservoir.

138.8 acres plus 39.6 access acres in Sections 10 and 11, of T. 136 N., R. 89 W.

Refer to the map in appendix for exact location.

1.3 Recreation and use

Recreation activities include wildlife viewing, fishing, swimming, picnicking, sailing and boating.

1.4 Vegetation

See general vegetation description in section 3.1.5.

This management unit has been identified as containing Needle-and-Thread Mixed Grass Prairies by the Natural Heritage Database. This habitat is ranked "Imperiled" by the Nature Conservancy District. (See Section 3.1.7, page 29).

1.5 Facilities Inventory

There are no additional Reclamation facilities in this unit.

1.6 Historical Background

The MU is managed primarily as a recreational home site/camping area occupied by eighty one permittees. The permittees purchased electrical, water, and sewer facilities for their private cabins constructed on public lands. The NDGFD began managing the cabin area for Reclamation in the 1950s. The NDGFD discontinued recreation management on May 25, 1979. Reclamation continued issuing permits. Permits have been renewed every 5 years to 29 occupied users in Cabin Area 2 and 52 occupied users in Cabin Area 3. A copy of the permit is located in the appendix.

Detailed plans or drawings, a schedule for completion, and requests to construct buildings or undertake cabin sit developments must be submitted by the Permittee to Reclamation at least 60 days prior to initiation of the proposed development activity.

RMP Five Year Plan

MU 032 (Cabin Area 2 and 3)

1. Administer the 81 cabin site permits.
 - a. Issue permits, collect annual fees, respond to customer correspondence dealing with Reclamation policy, directives and standards, and issue building and construction permits.
 - b. All ground disturbing construction activities to be conducted by the permittees or their contractors will require NEPA and NHPA compliance.**
 - c. Repair and add rock as needed to shoreline rip/rap.

2. Monitor use of the cabin sites
 - a. Verify that cabin sites are visibly marked with cabin lot number.
 - b. Conduct routine spot inspections of electrical hookups of water systems that provide reservoir water to cabin sites for domestic purposes.
 - c. Check that off-site encroachment of private trailers, campers, boats does not occur. Permittees can obtain off-site access permits from Reclamation by written request.

3. Reclamation will perform road maintenance on interior roads leading to the cabin sites. Work will consist of blading roads, vegetation control on the roads, graveling the road surface when needed, seeding side slopes, repairing erosion, repairing or replacing culverts, and other general maintenance activities. Approximately four blading trips are conducted annually.

2007 -2008

Administer cabin permits as required.

2009

Administer cabin permits as required.

Conduct detailed inspection of cabin sites to ensure permit compliance.

2010

Administer cabin permits as required.

Renew cabin permits for an additional 5 years.

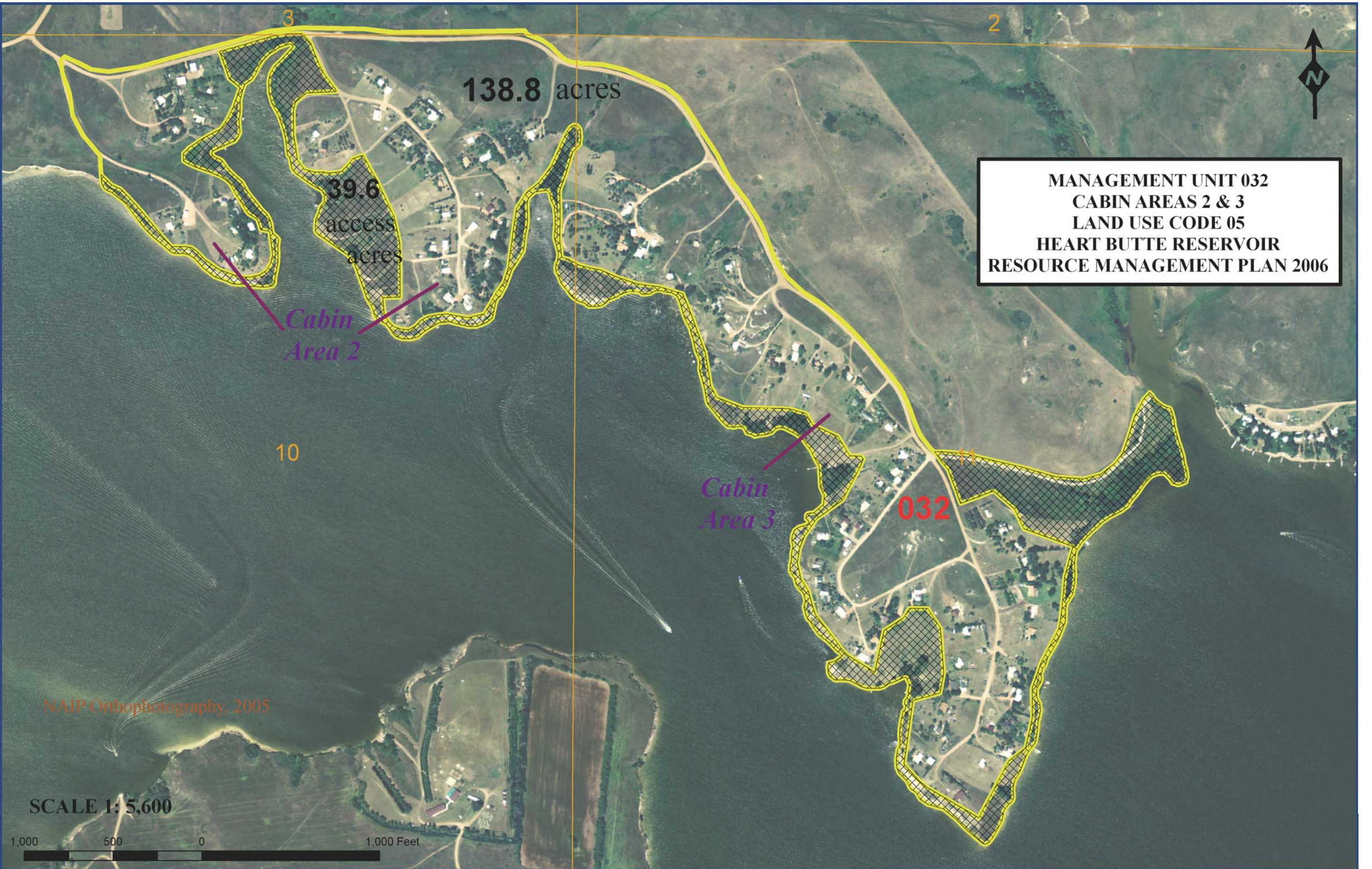
2011

Administer cabin permits as required.

Long Range Planning

Administer cabin permits as required.

Re-graveling roads.



MANAGEMENT UNIT 032
CABIN AREAS 2 & 3
LAND USE CODE 05
HEART BUTTE RESERVOIR
RESOURCE MANAGEMENT PLAN 2006

138.8 acres

39.6
access
acres

Cabin
Area 2

Cabin
Area 3

032

10

NAIP Orthophotography, 2005

SCALE 1: 5,600

1,000 500 0 1,000 Feet

MU 034 Trailer Areas 1 & 2

Management Unit Number (MU): 034
Trailer Areas 1 & 2

Land use code: 05

1.1 Goal

To manage the unit's land for 82 seasonal recreation trailer units by permit. The permit grants no vested property rights but affords only a limited license to occupy the land, pending a greater public use. The Permittee shall use the land in such a manner to promote acceptable conservation of the land. Safety and land based environmental health considerations are enforced subject to the terms and condition of a permit. The shoreline and access to the shoreline will, at all times, be open to the public.

1.2 Location

Trailer Areas 1 and 2 are west of the Heart Butte Dam on the north side of the Reservoir. 36.9 acres plus 19.7 access acres in Sections 11 & 12, of T. 136 N., R. 89 W. Refer to the map in appendix for exact location.

1.3 Recreation and use

Recreation activities include wildlife viewing, fishing, swimming, picnicking, sailing and boating.

1.4 Vegetation

See general vegetation description in section 3.1.5.

1.5 Facilities Inventory

Reclamation maintains three vault toilets and one potable water well for public use within this unit.

1.6 Historical Background

The MU is managed primarily as a recreational home site/camping area occupied by eighty two permittees. The permittees purchased electrical water and sewer facilities for their private trailer homes placed on public lands. The NDGFD began managing the trailer areas for Reclamation in the 1950s. The NDGFD discontinued recreation management on May 25, 1979. Reclamation continued issuing permits. Permits have been renewed every 5 years to 39 occupied users in Trailer Area 1 and to 43 occupied users in Trailer Area 2. A copy of the permit is located in the appendix.

Detailed plans or drawings, a schedule for completion, and requests to construct buildings or undertake cabin sit developments must be submitted by the Permittee to Reclamation at least 60 days prior to initiation of the proposed development activity.

RMP Five Year Plan

MU 034 (Trailer Areas 1 & 2)

1. Administer the 82 trailer site permits.
 - a. Issue permits, collect annual fees, respond to customer correspondence dealing with Reclamation policy, directives and standards, and issue building and construction permits.
 - b. **All anticipated ground disturbing construction activities to be conducted by the permittees or their contractors will require NEPA and NHPA compliance.**
 - c. Repair and add rock as needed to shoreline rip/rap.

2. Monitor use of the cabin sites
 - a. Verify that cabin sites are visibly marked with cabin lot number.
 - b. Conduct routine spot inspections of electrical hookups of water systems that provide reservoir water to cabin sites for domestic purposes.
 - c. Check that off-site encroachment of private trailers, campers, boats does not occur. Permittees can obtain off-site access permits from Reclamation by written request.

3. Reclamation will perform road maintenance on interior roads leading to the cabin sites. Work will consist of blading roads, vegetation control on the roads, graveling the road surface when needed, seeding side slopes, repairing erosion, repairing or replacing culverts, and other general maintenance activities. Approximately four blading trips are conducted annually.

2007

Pull two public water well hand pumps and cap wells.

2008

No work anticipated.

2009

Conduct detailed inspection of cabin sites to ensure permit compliance.

2010-2011

No work anticipated.

Long Range Planning

Re-gravel roads.



36.9 Total trailer acres
19.7 Total access acres



*Northside
Trailer
Area 2*

*Northside
Trailer
Area 1*

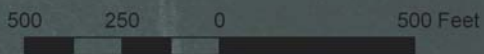
**MANAGEMENT UNIT 034
TRAILER AREAS 1 & 2
LAND USE CODE 05
HEART BUTTE RESERVOIR
RESOURCE MANAGEMENT PLAN 2006**

NAIP Orthophotography, 2005

SCALE 1: 3,600

14

13



SECTION 11 APPENDICES

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- R. Law Enforcement Contract
- S. Bibliography

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