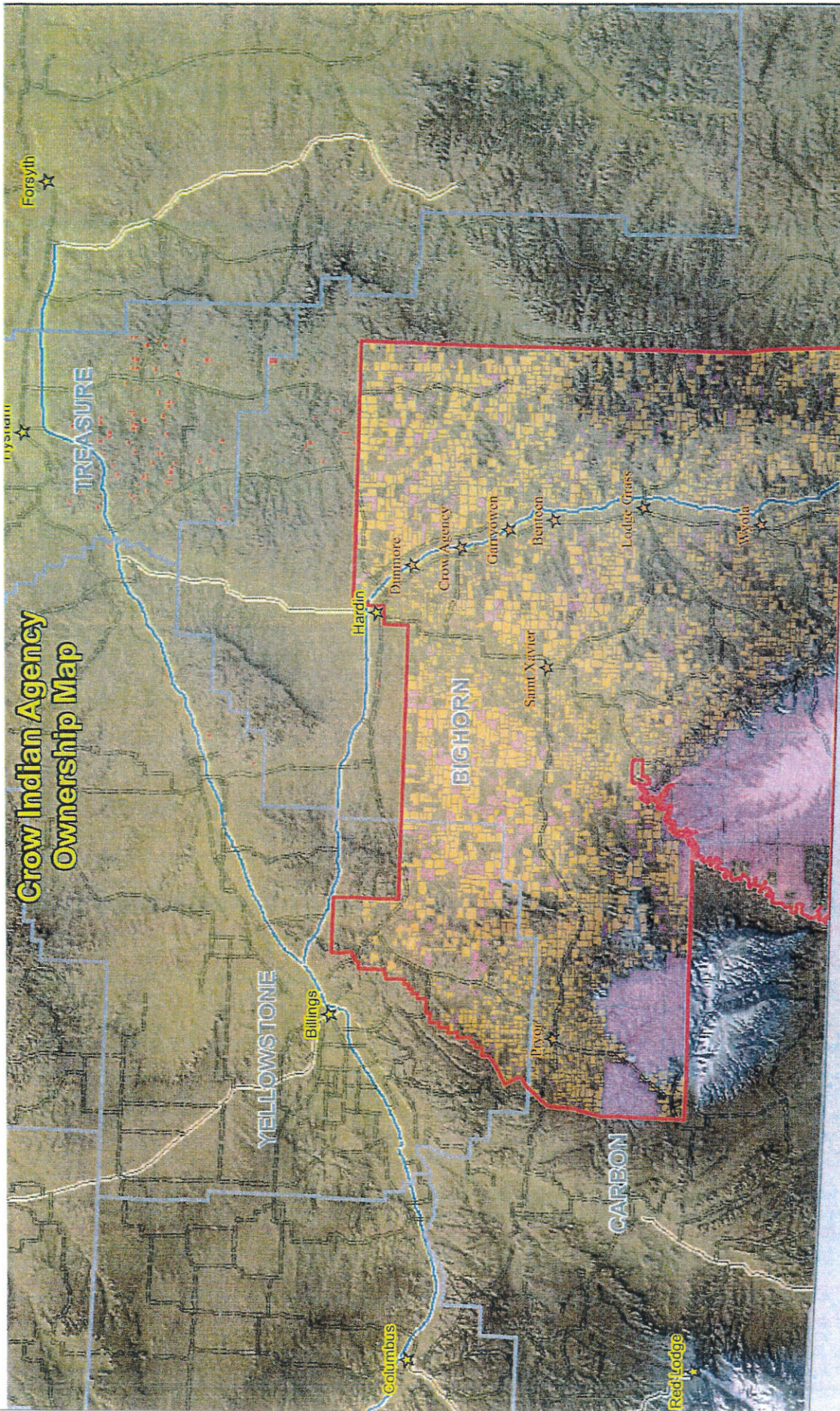


Crow Indian Agency Ownership Map



Crow Indian Reservation
2.2 Million Acres

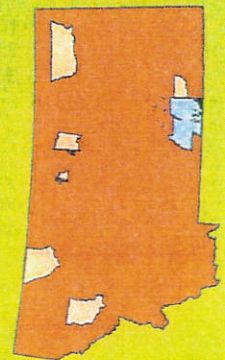


Map prepared by
Ken Bixby Regional GIS Tech.
3/11/2010

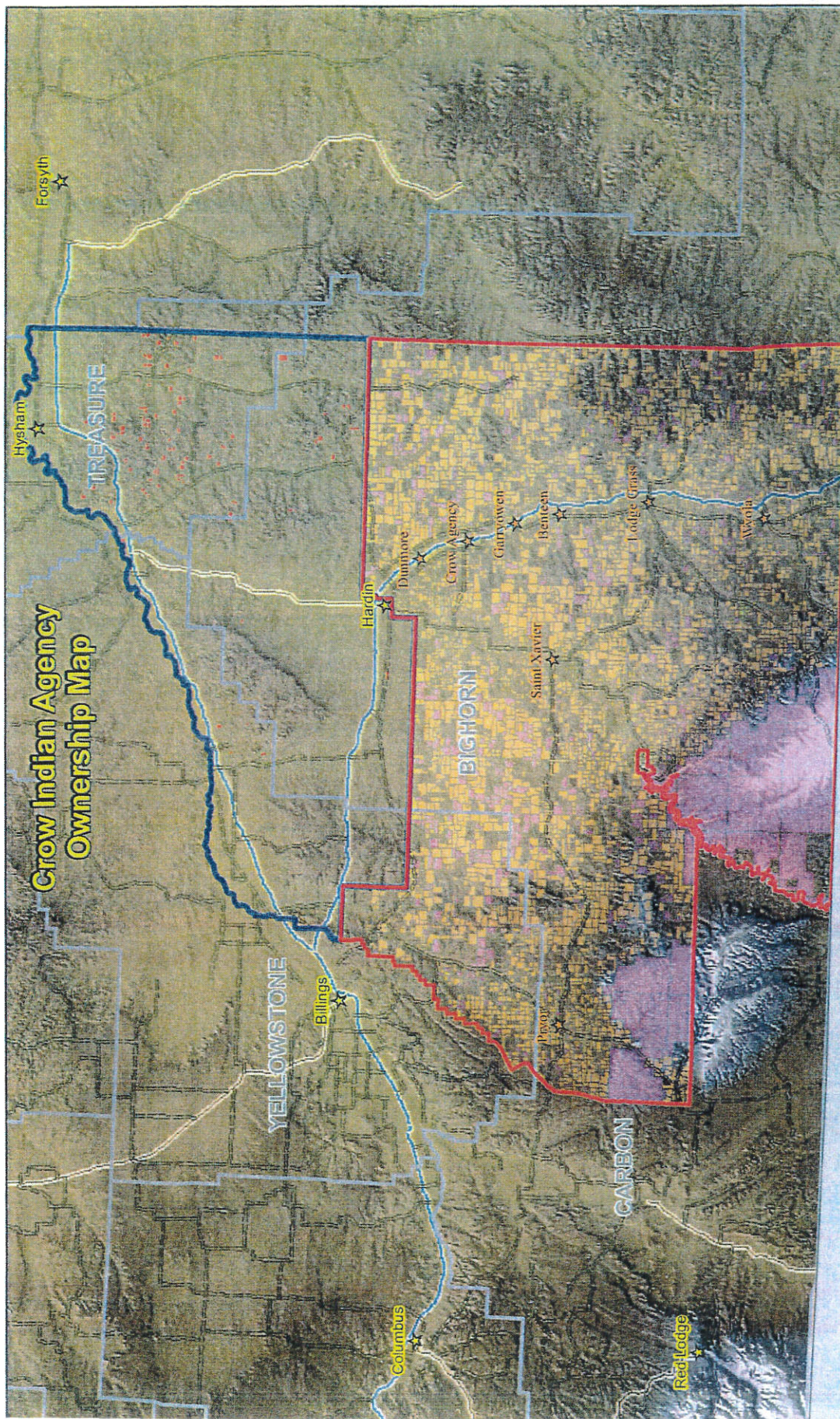
Roads

- Interstate
- Highway
- Local roads
- secondary

- Allotted
- Tribal
- Other Government
- Crow Ceded Area Ownership



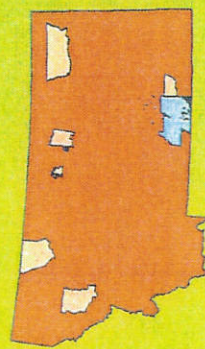
Crow Indian Agency Ownership Map



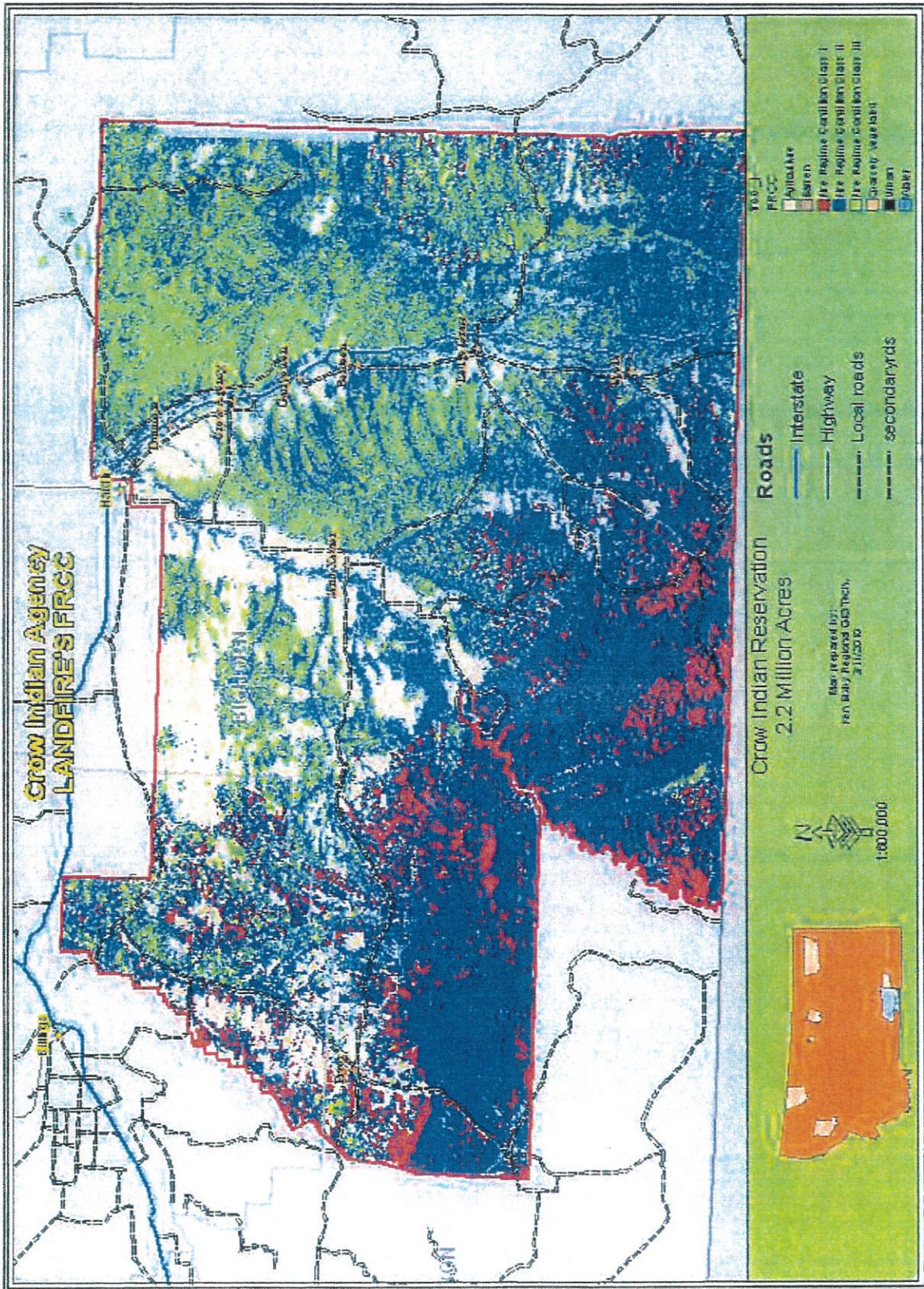
- Allotted
- Tribal
- Other Government
- Crow CEDED Area Boundary
- Crow Ceded Area Ownership

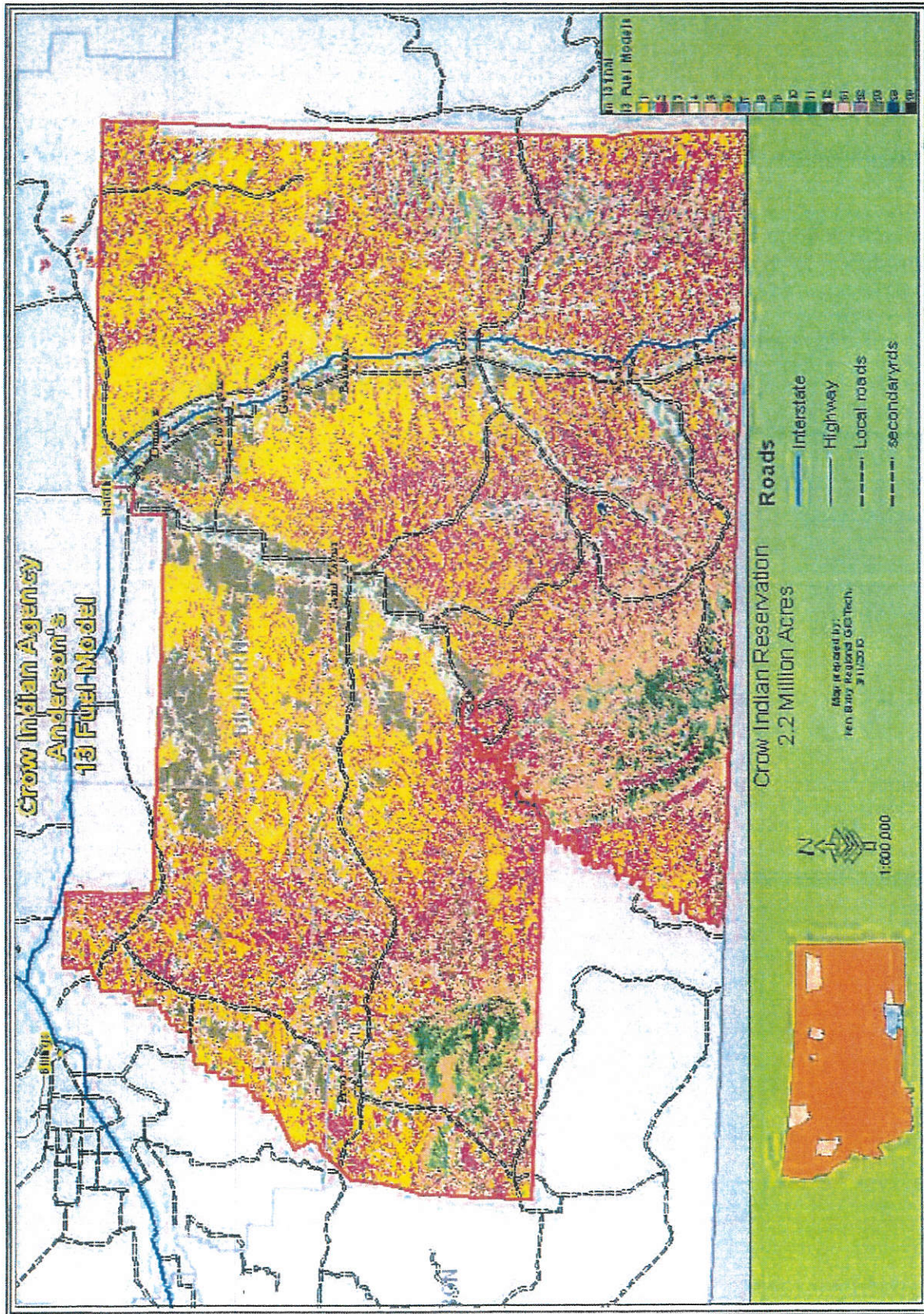
- ## Roads
- Interstate
 - Highway
 - Local roads
 - secondaryrds

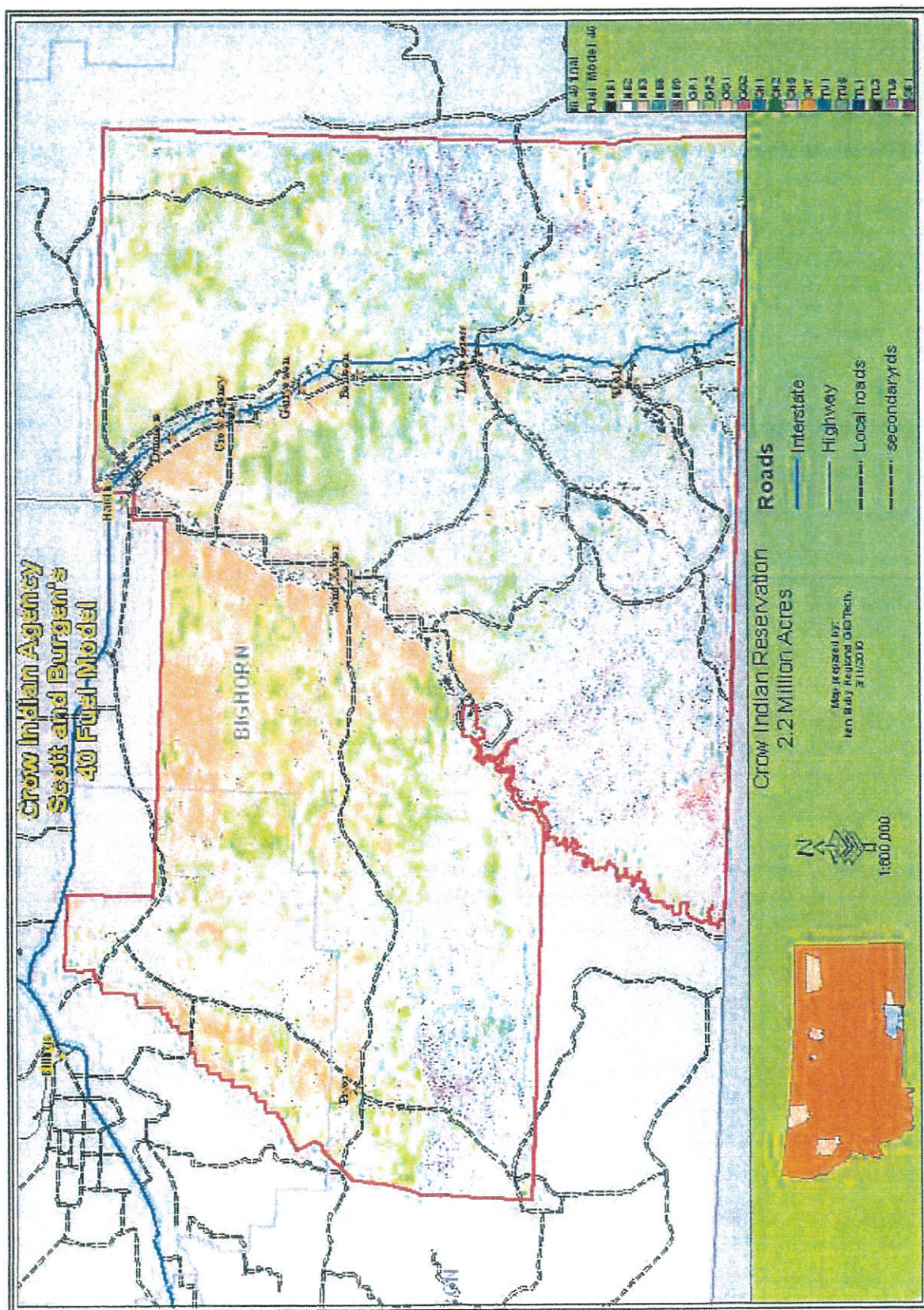
Crow Indian Reservation
2.2 Million Acres

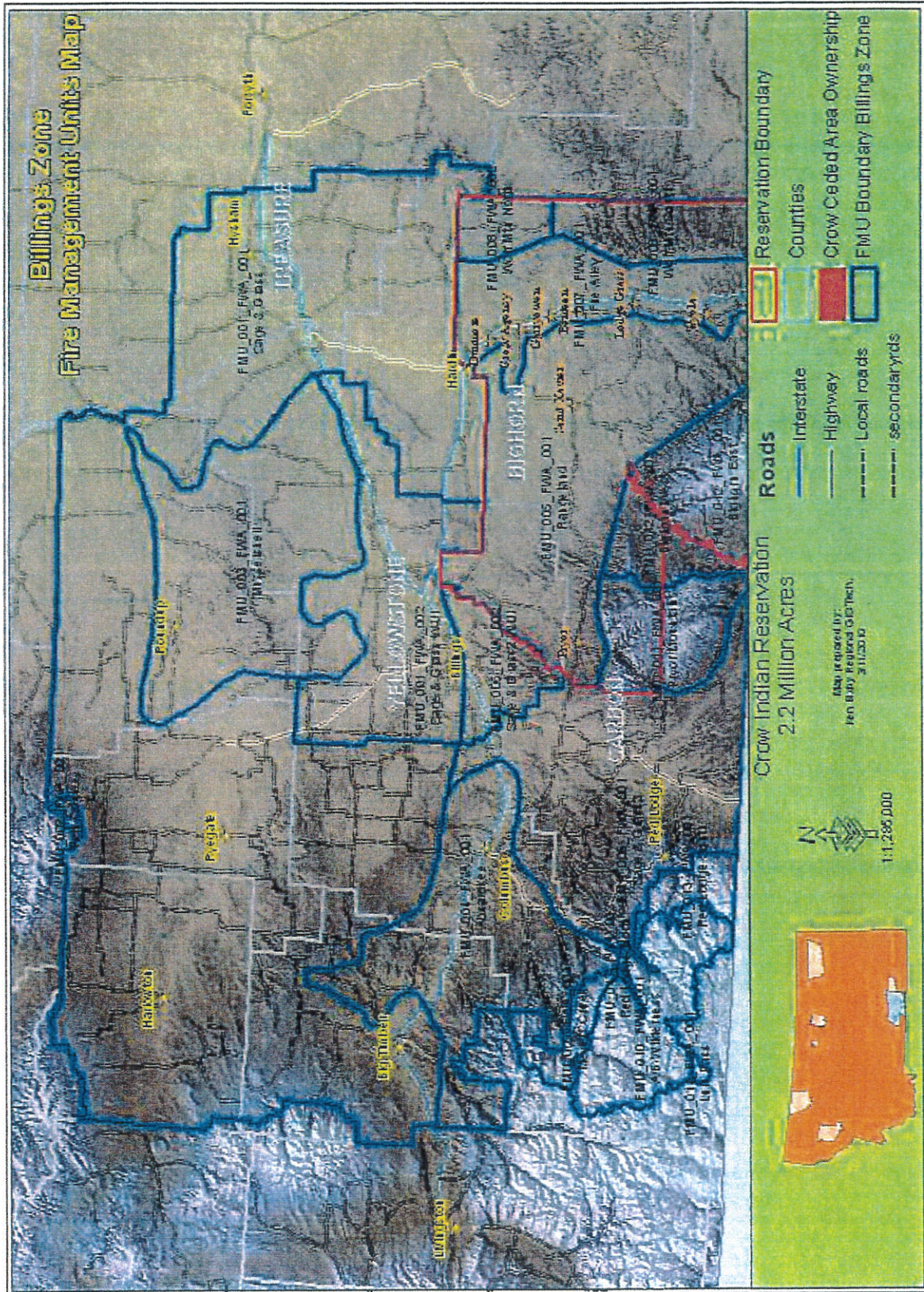


Map prepared by:
Ken Bixby Regional GIS Tech
3/11/2010















Crow Indian Reservation Management Compartments

Legend

- Chiefs
- Compartments
- Reservation Boundary



Map prepared by BIA/Crow Fuel's Program on February 15, 2010

APPENDIX B

FONSI



United States Department of the Interior

BUREAU OF INDIAN AFFAIRS

CROW AGENCY

P.O. Box 69

Crow Agency, MT 59022

October 4, 2010

FINDING OF NO SIGNIFICANT IMPACT

This Finding of No Significant Impact (FONSI) was completed in accordance with the National Environmental Policy Act of 1969 (NEPA), Council of Environmental Quality Regulations, Department of Interior procedures and Bureau of Indian Affairs (BIA) NEPA manual.

Proposed Action:

The Bureau of Indian Affairs proposes to adopt the 2010 revision of the Fire Management Plan for the Crow Indian Reservation. All activities associated with this plan have been addressed in the 2010 Environmental Assessment for the Fire Management Plan for the Crow Indian Reservation. This FONSI together with the EA constitute a complete record of the conservation planning and environmental impact analysis process for this proposal. The Fire Management Plan provides the operational guidance for conducting fire management activities.

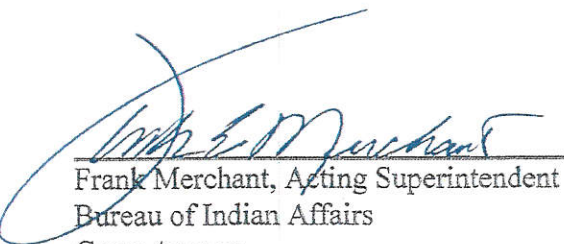
Comments were solicited from the public, Crow Tribal members, Crow Tribal Executive, Legislative, and Natural Resources Staff, and the BIA Rocky Mountain Regional Office. The preferred alternative supports a range of fire suppression management options based on benefits to the resource, as well as the use of prescribed fire for the treatment of hazardous fuels buildup, degraded habitat, and forest management.

There are no major adverse cumulative or secondary environmental effects of the actions proposed in the preferred alternative; therefore, an EIS is not required. The reasons supporting this finding are as follows:

1. The proposed actions support the goals and objectives of the Crow Tribe.
2. All fire management activities will be conducted in accordance with federal, state and tribal regulations.
3. By managing planned and unplanned fires for multiple resource objectives, using a range of suppression alternatives, ecological sustainability, forest productivity, and forage production for wildlife and domestic stock are expected to increase or not change negatively, and wildlife habitat should improve.

4. Archeological and cultural advisement requirements will be fulfilled to minimize the effects on cultural resources of unplanned fire, suppression, and prescribed burning activity.
5. Mitigating measures will be taken to minimize adverse impact on air quality, public health or safety, as suppression activities are monitored or increased to meet resource objectives.
6. The preferred alternative's quantified improved forest health will benefit water resources; potential minor adverse impacts to water resources from fire and suppression will be minimized.
7. Protective measures will be taken for Threatened or Endangered Species which may inhabit planned or unplanned fire areas.
8. Prior to certain management activities such as prescribed burning, NEPA compliance will be prepared and assessed for the particular land area of the proposed activity.

Any party affected by this FONSI may request an appeal from administrative actions in accordance with 25 C.F.R. Part 2.7, which requires a 30 day appeal period after the decision to proceed with the action is made, before the action may be implemented. The Notice of Appeal, including all supporting documentation, must be filed in the office of the official whose decision is being appealed within 30 days. A copy shall be filed through the Department of the Interior Board of Indian Appeals. A copy of the Notice of Appeal shall also be filed with the Chief, Environmental Services Staff, BIA, 1849 C Street NW, Washington, D.C. 20240-0001.


Frank Merchant, Acting Superintendent
Bureau of Indian Affairs
Crow Agency

10-04-2010
Date

APPENDIX C

Environmental Assessment

Bureau of Indian Affairs, Crow Agency
Fire & Aviation Management



Environmental
Assessment

FOR

Fire Management Plan
2010-2024



Abstract

The Bureau of Indian Affairs, Crow Agency is proposing to implement a new Fire Management Plan (FMP) for the Crow Indian Reservation located in south central Montana. This plan will specify a fire management course of action for the Crow Agency, as described in detail through a set of goals, objectives, and strategies.

This Environmental Assessment (EA) considers the biological, environmental, and socio-economic effects that implementation of the FMP's preferred alternative, and other management alternatives, will have on the most significant issues and concerns identified during the planning process.

Responsible Agency and Official:

Edward Parisian, Regional Director
Bureau of Indian Affairs, James Battin Federal Building, 316 North 26th Street, Billings, MT 59101

Additional Contacts for information regarding this Fire Management Plan and Environmental Assessment are:

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Debbie Scott, Deputy Superintendent of Trust Services
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Dale Glenmore, Fire Management Officer
Bureau of Indian Affairs, Crow Agency, P.O. Box 69, Crow Agency, MT 59022

Randy Pretty On Top, Prescribed Fire Specialist
Bureau of Indian Affairs, Crow Agency, P.O. Box 69, Crow Agency, MT 59022

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I. Purpose and Need for Action

This Environmental Assessment analyzes and considers the impacts of implementing short/long term alternatives for managing prescribed and unplanned wildland fire on the Crow Indian Reservation. The proposed appropriate management courses of action are described in goals, objectives, and strategies of the agency's Fire Management Plan (FMP) for fiscal years 2010-2024. The revision of management direction is needed to address current management issues, and to establish alternatives that may be taken in the use of fire as a management tool and appropriate responses to fire suppression efforts.

This Environmental Assessment (EA) was prepared using the guidelines of the National Environmental Policy Act (NEPA) of 1969. The Act requires examination of the effects on proposed actions on the natural and human environment. In the following sections, alternatives for future Agency fire management direction, the environmental consequences of each alternative, and the preferred management course of action are described.

In accordance with the Bureau of Indian Affairs (BIA), Indian Affairs Manual (IAM), Part 90, Chapter 1, every area of burnable vegetation must have an approved Fire Management Plan (FMP). Through implementing fire management principles and using the best available science, it is the agency's intent to implement a full range of fire management activities to achieve ecosystem sustainability, including its interrelated ecological, economic, and social components, to accomplish resource management objectives.

The 1995 Final Report of the Federal Wildland Fire Management Policy and Program Review provides guiding principles that are fundamental to the success of the Federal wildland fire management program and implementation of

review recommendations. These recommendations include Federal wildland fire policies in the areas of; safety, planning, wildland fire, prescribed fire, preparedness, suppression, prevention, protection priorities, interagency cooperation, standardization, economic efficiency, wildland/urban interface, and administration and employee roles.

The 2001 Federal Fire Management Policy update addresses 17 distinct items, the foremost being safety; all FMPs and fire management activities reflect this commitment. The Federal Wildland Fire Management Policy that now governs wildland fire management provides for a full range of responses, and the opportunity for wildland fires to be managed for multiple objectives including resource benefits. This policy represents a significant departure from past fire management practices. All ignitions occurring in wildland areas are now classified either as planned and unplanned fires. Unplanned wildland fires include most non-structure fires that occur in the wildland. Regardless of whether the origin is natural (generally lightning) or human (accident or arson), unplanned fires will receive a suppression response, in the absence of other specific management direction. Planned fires include any fire ignited by management actions to meet specific objectives, such as prescribed burns. Prior to the ignition of planned fires, a written, approved prescribed fire plan must exist and must fulfill NEPA requirements.

This EA constitutes the requisite NEPA documentation and compliance for the FMP. Specific needs of the FMP include:

- * Wildland fires are managed with the analysis and appropriate response as directed by the FMP.
- * Minimize burned area due to high values to be protected, threats to life or property, or other social, political, and

- economic considerations that outweigh potential environmental benefits.
- * Implement a wildland fire suppression decision-making process that evaluates and compares alternative strategies regarding safety, environmental, social, economic, political, and resource management objectives.
- * Meet current Congressional, Departmental and Bureau policy and direction for the requirement of a FMP.
- * Plan for use of prescribed fire to restore the historic role of fire to fire-dependent or fire-adapted habitats.
- * Use prescribed fire or other appropriate management tools (mechanical) to reduce hazardous fuels to protect improvements, and reduce risk of fire escape to adjacent land ownerships.

II. Management Alternatives

This section describes the alternatives to be considered, including the proposed action and three alternatives. This section also summarizes the environmental consequences of the alternatives and defines the differences between the alternatives.

Alternative A: (No Action) – Full suppression of all wildland fires.

This alternative would reflect aggressive suppression of all wildland fires regardless of the potential benefits of fire to natural resources. This alternative would also preclude the use of prescribed fire to benefit resources or reduce hazard fuels. A Fire Management Plan describing this policy would be prepared, approved and implemented.

Alternative B: (Preferred) – Prescribed burning would be utilized as a management tool. All wildland fires will be suppressed utilizing an appropriate response.

This alternative would allow for flexibility when considering management options. There are many benefits to the use of prescribed burning which, when combined with other management techniques such as mechanical treatments, allows for superior habitat management results. A considerable amount of effort will be expended in restoring ponderosa pine (*Pinus ponderosa*) timber stands to their historic fire regime. The use of prescribed fire allows for the successful re-establishment and restoration of these timber stands. Not only can time and money be saved, but the effects of fire management will meet habitat objectives in this fire dependent ecosystem better than any other method. Without the proper site preparation and pre-ignition controls involved in prescribed burning, wildland fires will have a greater likelihood of adversely affecting life, personal property, facilities, infrastructure and/or endangered species.

With this alternative, all wildland fires will be suppressed utilizing an appropriate response as fire behavior and environmental conditions dictate. An appropriate response includes the full range of suppression options, chosen based on qualitative and quantitative progress toward multiple management objectives specified in the Fire Management Plan. Responses are dictated by the range of potential objectives, combined with the program's capabilities to safely suppress a fire. Suppression action decisions will be aided by the 2009 introduction of the online interagency Wildland Fire Decision Support System, (WFDSS), which offers tools in decision analysis and reporting, and a range of documented response options.

Wildland fires not in urban interface zones will be suppressed utilizing Minimum Impact Suppression Techniques (MIST).

Criteria that would assist in choosing strategies of less than full suppression would include:

- No danger to human life or health.
- Not danger to private or government-owned property.
- Benefits must outweigh damage to natural resources.
- Must not have any negative impact on endangered, threatened or rare species.
- Must be capable of containment with resources immediately available.

Alternative C: No prescribed burning will be used. All wildland fires will be suppressed utilizing an appropriate management response.

This alternative prevents the use of prescribed burning as a management tool, but is otherwise identical to Alternative B. A Fire Management Plan describing this policy would be prepared, approved and implemented.

Alternatives considered but eliminated from detailed analysis: *No suppression.*

A fourth potential management alternative, of no suppression of wildland fires, is not considered further in this document, due to the overwhelming impact upon public safety of dealing with wildfires without options for active management including suppression activity.

Comparison of the Alternatives/ Issues

A comparison of the three alternatives, based on the objectives of the Fire Management Plan, is difficult to quantify since the results depend

upon when and where unplanned fires occur. Wildfires will occur and will burn lands within the Reservation regardless of which alternative is applied.

Fire effects such as the amount of area burned, the severity of the fire on the landscape, and other effects described in this document do not necessarily depend on the alternative chosen, nor on the length of time a fire burns; rather, they depend on the available fuels, short- and long-term weather patterns, and topography for each fire event.

In other words, a quantitative analysis of the effects of each alternative would have to discuss the data for fire effects at all different fuels, weather, and topographic variations on the Reservation. These factors at a minimum might include the 13 fuel models and myriad ecological communities and human land use patterns present on the Reservation; weather factors affecting fire behavior such as seasons, climate patterns, current and expected weather; and physiographic factors such as localized fire effects histories, and local patterns of weather observations based on topography.

Past Reservation fires have varied greatly in their environmental effects based on confluences of these factors. This document attempts to make the best possible predictions of each alternative's fire effects in a mostly qualitative way.

Table 1: General effects of each alternative upon general environmental concerns

Concerns	Alternative A (Full suppression of all fires)	Alternative B (Range of suppression options, use of prescribed fire: Proposed Action)	Alternative C (Range of suppression options, no prescribed fire)
Firefighter Safety	Risks to firefighters would remain high during fire suppression operations in remote and difficult to access parts of the Reservation.	Risks to firefighters would be reduced when using modified suppression tactics, or when limiting response in remote areas when a fire poses limited risk to natural resources or property, and is managed for multiple objectives with minimal suppression.	Risks to firefighters would be reduced when using modified suppression tactics. However, lack of prescribed fires would allow continued fuels buildup leading to greater fire intensities in unplanned fires, with greater risks to firefighters.
Restoration of Role of Fire in Native Plant Communities	Fire as a natural process would be limited by active suppression to limit burned areas.	The role of fire as a natural process would be resumed.	Fire would have a role as a natural process. Lack of prescribed controlled burning would intensify fire's effects in areas where it had been excluded.
Introduction and Spread of Noxious Weeds	The potential for weeds to colonize areas disturbed by fire could be reduced if the total burned area were minimized by active suppression actions. On the other hand, suppression operations can inadvertently bring in weed seeds on firefighting equipment, and disturb soil to provide weed seedbeds.	The total area of short-term disturbance following fire will be greater in some fuel types and burn severities, if fires are not immediately suppressed. On the other hand, fire does not necessarily increase noxious weed cover, depending on species and season. Spring burning, as invasive weeds have begun to set seed, can reduce invasive populations.	The total area of short-term disturbance following fire will be greater in some fuel types and burn severities, if fires are not immediately suppressed. On the other hand, fire does not necessarily increase noxious weed cover, depending on species and season.

Concerns	Alternative A (Full suppression of all fires)	Alternative B (Range of suppression options, use of prescribed fire: Proposed Action)	Alternative C (Range of suppression options, no prescribed fire)
Cultural Properties	Suppression operations create short term intensive land use (aircraft, activity, line and camp construction) and leave long term physical scars (firelines, retardant drops, road ruts leading to further motorized intrusion). Land use mitigations include use of a resource advisor and of MIST tactics. Increased fire's negative effects might include exposure of and chemical or physical changes to artifacts.	The short and long term impacts of suppression operations would be minimized in culturally significant areas Prescribed burns receive a cultural inventory to identify and locate cultural properties before potential burning, which mitigates most negative effects of prescribed fire.	The role of fire as a natural process would be resumed. However, species composition changes resulting from past fire exclusion have created less diverse landscapes which are less resilient to further environmental change. Erosion increases which may increase looting of artifacts.
Effects on Fauna	Fire effects would not approach prehistoric norms, due to a combination of fuel buildups and resulting fire severity, yet less acreage burned overall at moderate intensities. Also, suppression operations may impact animal species that show stress in response of human activity in their habitat.	Fire would occur Reservation-wide at near-prehistoric frequencies and intensities, allowing fauna to interact with fire effects with species encountering less necessity for rapid adaptation to changes in habitat due to human-caused alterations of natural fire regimes..	The role of fire as a natural process would be resumed. However, changes in vegetation resulting from past fire exclusion have created less diverse landscapes which may be welcoming to fauna, due to lack of diversity of food types, shelter, and the resulting diminishment of available resources.
Air Quality	Smoke and the resulting impairment of visibility would be minimized by extinguishing fires as soon as possible.	Smoke and the resulting impairment of visibility could increase or be spread over a longer period of time as some fires are not immediately suppressed. Prescribed burn plans mitigate smoke impacts by allowing burning only when smoke will be diffused by transport winds.	Smoke and the resulting impairment of visibility could increase. Unplanned fires will burn more intensely in areas not pretreated with prescribed burns, causing worse short-term effects on airsheds and viewsheds.

Concerns	Alternative A (Full suppression of all fires)	Alternative B (Range of suppression options, use of prescribed fire: Proposed Action)	Alternative C (Range of suppression options, no prescribed fire)
Soils Effects	Fire-caused erosion would be minimized for a particular incident. Conversely, impacts of firefighting activities on the ground would be maximized. Use of aerial retardant follows federal guidelines to safeguard riparian and aquatic species. MIST tactics are suggested for each alternative. Other mitigation includes BAER and other rehabilitation work following a fire.	Prescribed fires minimize disturbance of surface layers compared to unplanned fires, and actively plan to prevent creation of hydrophobic or sterilized soils. Lessened suppression provokes less physical disturbance than Alternative A, but more than Alternative C, due to human operations on prescribed burns.	Unplanned fires typically burn with greater intensity than do prescribed fires, with greater effects on soils.

III. Affected Environment

This section of the environmental assessment describes the existing environment potentially affected by the proposed action.

3.1 Introduction

The Crow Indian Reservation covers over 2,226,000 acres or about 3,600 square miles, of which almost two-thirds are trust lands: lands for which the Bureau of Indian Affairs has a trust management responsibility, usually for multiple individual owners. About 137,300 acres are forested timberland in ponderosa pine, limber pine, lodgepole pine, and dense spruce/fir. Another 21,000 acres are juniper, aspen and cottonwood/hardwood woodlands. Forestlands are mainly on one of three mountain ranges rising from the prairie. The Wolf Mountains (and Sarpy hills) host mostly

ponderosa pine growing on sandstone. The Pryor Mountains are mostly overmature stands of lodgepole pine mixed with fir at higher elevations; both areas are roaded and have hosted timber sales. The Reservation's portion of the Big Horn Mountains rises above 9,000 feet, and access is protected for cultural uses. Remaining trust lands are mainly open grasslands devoted to range, wheat farming, or other agricultural uses. Habitation by a population of about 7,200 is concentrated in the Little Big Horn River, Bighorn River, and Pryor Creek valleys, mostly at a distance from forested lands. Most wildfires are human-caused in the valleys and are near structures. Away from population corridors of river valleys, unplanned fires are mainly lightning-caused, and rarely threaten homes.

Patterns of land ownership and responsibility on the Reservation are exceedingly complicated.