
5-MILE ZONE PROTECTIVE AND REGULATORY PUMPING UNIT RESOURCE MANAGEMENT PLAN/ ENVIRONMENTAL ASSESSMENT

YUMA COUNTY, ARIZONA



PREPARED FOR

BUREAU OF RECLAMATION
LOWER COLORADO REGION
YUMA AREA OFFICE
YUMA, ARIZONA

PREPARED BY

BUREAU OF RECLAMATION
TECHNICAL SERVICE CENTER
DENVER, Colorado

April 2004

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

The mission of the Bureau of Reclamation 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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REGULATORY PUMPING UNIT
RESOURCE MANAGEMENT PLAN/
ENVIRONMENTAL ASSESSMENT**

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Finding of No Significant Impact

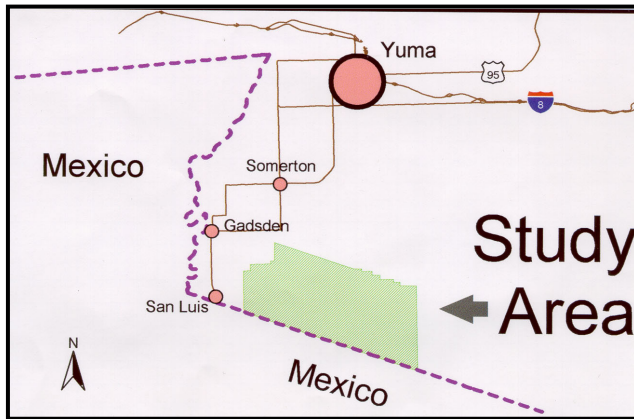
5-Mile Zone Protective and Regulatory Pumping Unit Resource Management Plan Yuma, Arizona

INTRODUCTION

This finding of no significant impact (FONSI) describes the Bureau of Reclamation's (Reclamation) environmental conclusions regarding a proposal to implement a resource management plan (RMP) in the 5-mile-zone. Reclamation prepared the *5-Mile Zone Protective and Regulatory Pumping Unit Resource Management Plan/Environmental Assessment* (RMP/EA) to evaluate the potential environmental effects of four alternatives, including a no action alternative in accordance with the provisions of the National Environmental Policy Act (NEPA). This FONSI is a separate companion document to the final RMP/EA.

Because the alternatives developed for the RMP portion of the document are general in nature, the environmental assessment (EA) portion of the document (NEPA portion) is programmatic in nature. Thus, Reclamation will complete site-specific NEPA compliance that is tiered to the final RMP/EA and this FONSI before implementation of any ground-disturbing actions covered under the RMP.

The 5-mile zone is a 5-mile-wide, 13-mile-long strip of land about 10 miles south of Yuma, Arizona, in the extreme southwestern part of the State. In 1944, the United States and Mexico signed a treaty (Treaty) requiring the United States to annually deliver 1.5 million acre-feet of Colorado River water to Mexico. In August 1973, to resolve salinity problems, the two countries reached a permanent solution in the form of Minute No. 242 of the International Boundary and Water Commission (IBWC Minute 242). IBWC Minute 242 includes the provision that the United States shall deliver approximately 140,000 acre-feet of water to Mexico annually at the southern international boundary to partially satisfy its Treaty obligations and that each country shall limit groundwater pumping within 5 miles of the international boundary near San Luis, Arizona, to 160,000 acre-feet annually. In June 1974, the Congress passed the Colorado River Basin Salinity Control Act, Public Law (P.L.) 93-320, to enable the United States to comply with its obligations under IBWC Minute 242. Section 103(a) of this act authorized the United States to construct, operate, and maintain well fields within the 5-mile zone that are capable of providing sufficient water to Mexico. These well fields are located on Reclamation lands commonly called Reclamation's 5-mile zone Protective and Regulatory Pumping Unit (PRPU).



Location and Boundary of the Study Area.

The study area includes those lands within the 5-mile zone that are east of Avenue H and are under the jurisdiction of Reclamation. Other lands within the 5-mile zone are owned or managed by the Bureau of Land Management, State of Arizona, city of San Luis, or private landowners and are not considered in this RMP/EA.

PURPOSE AND NEED

The purpose of the RMP is to establish a 10-year plan detailing the management framework to conserve, protect, enhance, develop, and use the natural and cultural resources within the study area.

The RMP is needed to provide decisionmakers with consistent direction and guidance ensuring that management of the natural and cultural resources within the study area is compatible with the authorized purposes of Title I of the Colorado River Basin Salinity Control Act of 1974, P.L. 93-320, as amended by P.L. 96-336 and IBWC Minute 242. Further, the RMP is needed to provide decisionmakers and planners with consistent direction and guidance in resolving land and water use issues and concerns within the study area related to conflicts between the need to accommodate development in San Luis, Arizona, address increasing public demand, and the management of cultural and natural resources.

ALTERNATIVES CONSIDERED

Reclamation developed three action alternatives (i.e., alternatives that prescribe a change in resource management in the study area). In addition to the action alternatives, Reclamation also formulated a No Action Alternative, as required by the Council on Environmental Quality regulations implementing NEPA. The No Action Alternative describes the management of the study area if Reclamation does not implement an RMP for the 5-mile zone.

Four alternatives were considered in detail: the No Action Alternative (Alternative A), Natural Resources Conservation/Protection Alternative (Alternative B), Recreation, Community, and Commercial Development Alternative (Alternative C), and Natural Resources Conservation/Protection with Limited Recreation, Community, and Commercial Development (Alternative D).

Preferred Alternative

The Natural Resources Conservation/Protection with Limited Recreation, Community, and Commercial Development (Alternative D) was selected as the preferred alternative. Under the preferred alternative, Reclamation resource management policies and practices within the study area would change. Reclamation will authorize limited use and consider limited land exchanges/transfers within the study area to accommodate limited recreation, community, and commercial activities. These uses will be limited to maintain Reclamation's capability to meet water deliveries to Mexico, in accordance with Treaty obligations, and conserve flat-tailed horned lizard habitat, pursuant to the *2003 Flat-Tailed Horned Lizard Rangewide Management Strategy*. Chapter IV of the RMP/EA provides a detailed description of Alternative D.

ENVIRONMENTAL COMMITMENTS

Because the EA portion of the RMP is programmatic in nature, Reclamation recognized the difficulty of establishing site- or project-specific environmental commitments to avoid and mitigate, as appropriate, potential impacts to cultural and natural resources in the study area that may be associated with implementation of the RMP under Alternative D. Therefore, Reclamation developed and included comprehensive guidance and principles for establishing environmental commitments for inclusion in site- or project-specific NEPA documents that will be tiered to the final RMP/EA. Details pertaining to environmental commitments are included as a separate section in the RMP/EA and includes guidance specific to the following resource areas.

- ❖ Implement control measures to minimize impacts on **Air Quality**.
- ❖ Prevent **Soil** erosion related to proposed projects.
- ❖ Implement controls, limit **Land Use** conflicts, and avoid adverse impacts to cultural and natural resources.
- ❖ Monitor **Groundwater** levels and quality and establish best management practices, as needed, to avoid over withdrawals and degradation.
- ❖ Implement measures to support protection and recovery of the **Flat-Tailed Horned Lizard** and other **Special Status Species**, including consultation under the provisions of the **Fish and Wildlife Coordination Act** and the **Endangered Species Act**.
- ❖ Consider carrying capacity, strict design criteria, potential user conflicts, and bilingual concerns prior to development of **Recreation** facilities.
- ❖ Consult with the State Historic Preservation Officer and Indian tribes, and conduct **Cultural Resources** surveys prior to implementation of project specific activities.
- ❖ Based on consultation, determine measures to avoid impacts to **Indian Sacred Sites** and avoid, mitigate, or compensate for any adverse impacts to **Indian Trust Assets**.

SCOPING AND PUBLIC REVIEW

Throughout the development of this RMP/EA, Reclamation made a concerted effort to involve interested parties, including agencies, Indian tribes, special interest groups, and individuals, in the planning for the environmental, land, recreation, and wildlife resources within the study area.

The public scoping process for this RMP/EA included individual agency meetings and several open house forums. Press releases announcing the open houses were sent to local media. Bilingual assistance was available at the open houses, and Spanish documentation was provided during the public scoping process, when requested.

At each open house, Reclamation provided pertinent information to the public and solicited public issues and concerns about the existing and future management of the study area. Reclamation used the input garnered from public and interested agencies to formulate the four alternatives considered. Once the alternatives were developed, Reclamation sent descriptions to those on the mailing list and held an open house to seek further input. Reclamation considered all comments received during initial scoping and development of the alternatives.

On August 25, 2003, the draft RMP/EA was sent to those on the mailing list for review and comment. A detailed description of the public scoping process and proceedings are described in chapter 1, and copies of comment letters are included as an appendix to the RMP/EA. Comments received on the draft RMP/EA were considered in preparing the final RMP/EA. The final RMP/EA will be available on the internet and mailed to those on the distribution list. A news release announcing its availability will be sent to local media.

Reclamation will provide for future public involvement opportunities associated with implementing some of the management actions in the RMP through the PRPU study area working group and public involvement activities associated with future RMP-related NEPA compliance requirements.

COORDINATION

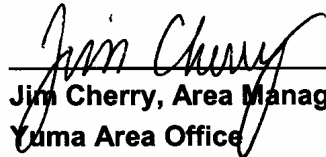
In the course of preparing the RMP/EA, Reclamation conducted consultation and coordination in accordance with the following laws and requirements. Chapter I of the RMP/EA provides detailed information pertaining to specific coordination efforts.

- ❖ National Historic Preservation Act of 1966, as amended
- ❖ Fish and Wildlife Coordination Act of 1958, as amended, and Endangered Species Act of 1973, as amended
- ❖ Indian Trust Assets
- ❖ Adjacent Landowners

FINDING

Reclamation analyzed, and the EA portion of the RMP/EA documented, the potential environmental and social impacts of the proposed action on the following: air quality, noise, soils, land use and transportation, groundwater, vegetation and wildlife, special status species, recreation, visual resources, economics, cultural resources, Indian sacred sites, Indian trust assets, and environmental justice. The results of the analysis determined that implementation of the 5-Mile Zone Protective and Regulatory Pumping Unit Resource Management Plan, as described under the Natural Resources Conservation/Protection Alternative (Alternative D), would not have significant impacts on the human and natural environment.

Approved:

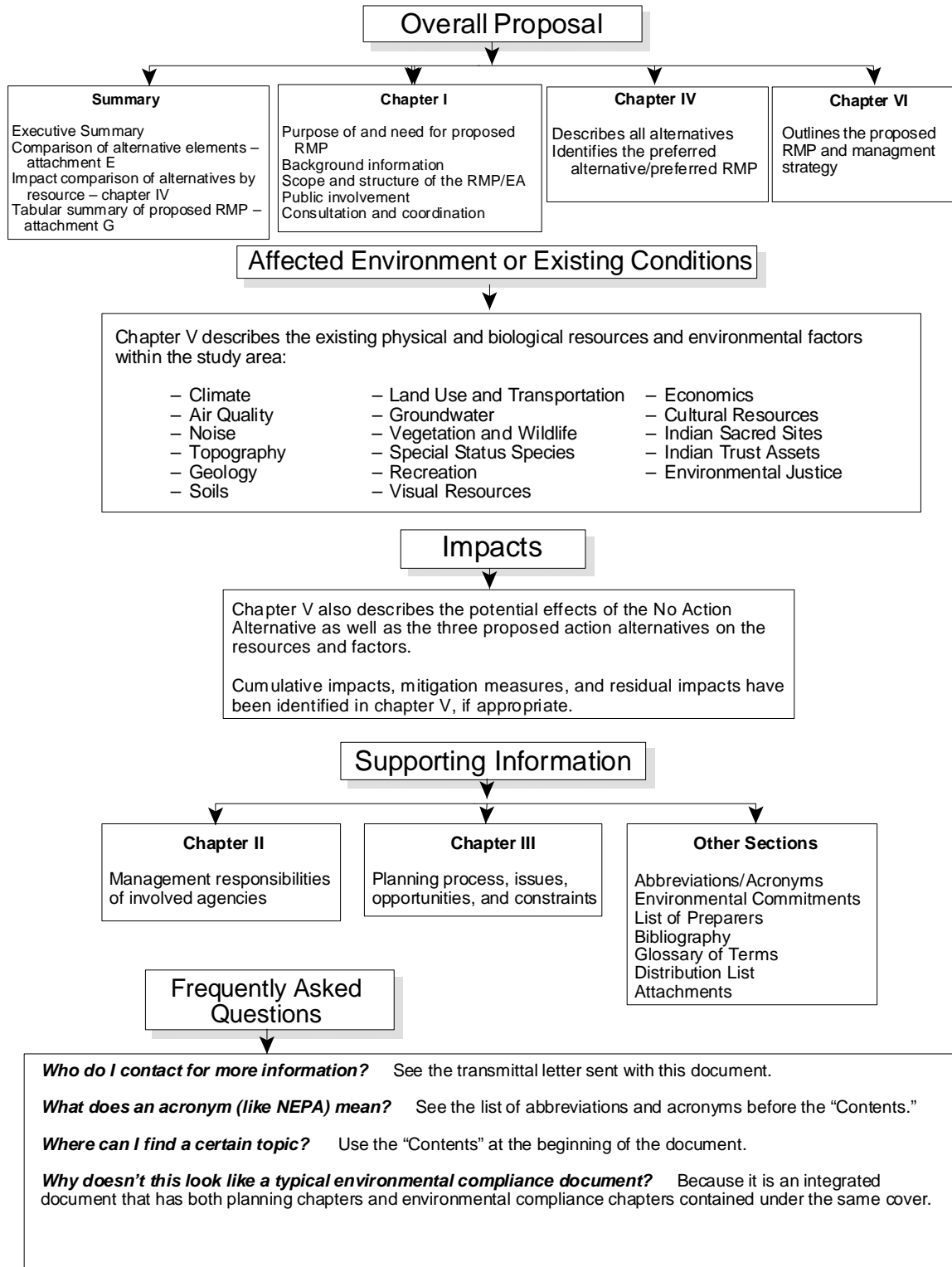


Jim Cherry, Area Manager
Yuma Area Office

3-18-04
Date

How to Read This Resource Management Plan/ Environmental Assessment

This resource management plan (RMP)/environmental assessment (EA) is an integrated planning and National Environmental Policy Act compliance document. The schematic below will help you locate the information you are most interested in.



Executive Summary

The Bureau of Reclamation (Reclamation) prepared this resource management plan and environmental assessment (RMP/EA) for certain Reclamation lands within the 5-mile zone, a 5-mile-wide, 13-mile-long strip of land about 10 miles south of Yuma, Arizona, in the extreme southwestern part of the State. The Southerly International Boundary (SIB) between the United States and Mexico forms the 5-mile zone's southern boundary. The 5-mile zone's northern boundary parallels its southern boundary. From its western boundary, formed by the limitrophe section of the international boundary,¹ the 5-mile zone extends 13 miles southeast to the boundary of the Barry M. Goldwater Range.

Specifically, this planning effort addresses those lands within the 5-mile zone that are east of Avenue H and are under the jurisdiction of Reclamation (study area). The study area is commonly called Reclamation's Protective and Regulatory Pumping Unit (PRPU) and encompasses approximately 30,200 acres. Other lands within the 5-mile zone are owned or managed by the Bureau of Land Management (BLM), State of Arizona, city of San Luis, or private landowners. The city of San Luis is located in the southwestern portion of the 5-mile zone.

BLM will address, in a separate resource management plan, the Reclamation lands that it manages along the Colorado River.

PROPOSED FEDERAL ACTION

Preparation and implementation of an RMP is a Federal action that is intended to direct the management of resources within the study area to maximize overall public and resource benefits for the next 10 years. The National Environmental Policy Act (NEPA) requires Federal agencies to consider the potential effect(s) of a Federal action on the environment before implementing the proposed action. Therefore, Reclamation used a planning process and an appropriate level of environmental analysis to develop this RMP/EA. Once Reclamation adopts the RMP/EA, it will be used as the framework to manage lands within the study area.

PURPOSE OF AND NEED FOR ACTION

The purpose of this RMP is to establish a 10-year plan detailing the management framework to conserve, protect, enhance, develop, and use the natural and cultural resources within the study area.

¹ "Limitrophe" refers to the international boundary between the United States and Mexico formed by the Colorado River.

The RMP is needed to do the following:

- ~ Provide decisionmakers with consistent direction and guidance to successfully manage the natural and cultural resources within the study area.
- ~ Ensure management of the natural and cultural resources are compatible with the authorized purposes of Title I of the Colorado River Basin Salinity Control Act of 1974, Public Law 93-320, as amended by Public Law 96-336.
- ~ Resolve land and water use issues and concerns within the study area related to the growth of the city of San Luis, Arizona, and surrounding area.
- ~ Address the increasing demand for public use of the resources within the study area while protecting and enhancing the natural and cultural resources.

AUTHORITY

Title 28 of Public Law 102-575, Section 2805 (106 Statute 4690, Reclamation Recreation Management Act of October 30, 1992) provides Reclamation with authority to prepare resource management plans.

PUBLIC INVOLVEMENT

Throughout the development of this RMP/EA, Reclamation made a concerted effort to involve interested parties, including agencies, special interest groups, and individuals, in planning for the environmental, land, recreation, and wildlife resources within the study area.

CONSULTATION AND COORDINATION

Reclamation also conducted agency consultation and coordination in the course of developing this document, including consultations required by Section 106 of the National Historic Preservation Act of 1966, as amended, and its implementing regulations; the Fish and Wildlife Coordination Act of 1958, as amended; and the Endangered Species Act of 1973, as amended. Reclamation also consulted with the Bureau of Indian Affairs and area tribes about Indian trust assets within the study area. In addition, Reclamation contacted several adjacent landowners and gathered information about existing and future uses of those lands.

RESPONSIBILITIES OF DIFFERENT MANAGEMENT ENTITIES IN THE STUDY AREA

Reclamation maintains primary jurisdiction of the lands and associated resources within the study area; however, other entities may have some limited involvement in managing the study area. Some of these entities include the following.

International Boundary and Water Commission

The International Boundary and Water Commission (IBWC) is responsible for the demarcation of all international boundaries and any water or boundary issues. The IBWC is responsible for annual reports that address the amount of water pumped from Reclamation wells within the study area, as well as the amount of water pumped from wells by other entities and individuals within the study area.

United States Border Patrol

The primary mission of the United States Border Patrol is the detection and apprehension of illegal aliens and smugglers of aliens at or near the international land boundary.

Arizona Game and Fish Department

The Arizona Game and Fish Department (AGFD) has management authority of the State's wildlife, which is held in trust for the citizens of the State of Arizona.

Yuma Area Water Resources Management Group

The Yuma Area Water Resources Management Group (YAWRMG) includes representatives from major water entitlement holders, suppliers, and managers in the greater Yuma area. The group includes irrigation districts, municipalities, and governmental agencies, such as Reclamation. YAWRMG's objective is to more effectively manage and use the water resources available to the greater Yuma area while meeting treaty water quality and salinity requirements with Mexico.

Flat-Tailed Horned Lizard Interagency Coordinating Committee

This committee developed a Flat-Tailed Horned Lizard Management Strategy (Rangewide Management Strategy) (last revised in May 2003) for the flat-tailed horned lizard in the United States. Reclamation manages the approximately 16,000 acres of flat-tailed horned lizard critical habitat (Yuma Desert Management Area) within the study area pursuant to this Rangewide Management Strategy.

ADJACENT LAND USES

Federal, State, and local government entities manage lands adjacent to and near the study area. BLM, the U.S. Air Force, and the U.S. Navy administer Federal lands adjacent to and near the study area. BLM manages the lands for multiple use and is responsible for managing a wide variety of renewable and nonrenewable resources. As an agency, some of the resources it manages are soils, water, grazing, minerals, wildlife species and habitat, recreation, off-highway vehicles, and heritage resources. The Air Force and the Navy administer lands that primarily support national defense purposes. They administer other lands to manage and protect natural and cultural resources.

The State of Arizona administers several sections of lands adjacent to or within the study area. These lands are used primarily for open space, recreation activities such as hunting, and for agriculture through leases with private parties.

Local government entities, such as the city of San Luis, city or county of Yuma, or private nonprofit organizations, such as the Greater Yuma Port Authority, manage other lands adjacent to the study area. These lands are used primarily for residential and industrial uses while maintaining adequate open space for public recreation.

LAND USE PLANNING PROCESS

Reclamation followed an established land use planning process to prepare this RMP/EA. This process focuses on resolving issues that arise over the use and management of public lands and resources. A planning issue can be defined as an unrealized opportunity, an unresolved conflict or problem, an effort to implement a new management program as a result of new initiatives or laws and regulations, or a resource or public use value being lost. Not all issues are related to resource management; therefore, an RMP/EA cannot resolve all issues; some must be resolved administratively.

For this RMP/EA, Reclamation identified issues concerning the conflicting demands for consumptive and non-consumptive uses of the land. The primary challenge is to protect natural and cultural resources while allowing uses that have a minimum effect on these resources. Reclamation used three areas of investigation to identify planning issues, opportunities, and constraints:

- ~ Public involvement
- ~ Collection and evaluation of existing resource data
- ~ Review of its internal programs and policies

Similar issues were grouped into issue categories. This RMP/EA addresses the following seven issue categories:

- ~ Land use

- ~ Water use
- ~ Partnerships
- ~ Natural and cultural resources management
- ~ Public information and education
- ~ Recreation management
- ~ Health and safety

MANAGEMENT OPPORTUNITIES

Management opportunities exist within the study area to protect, enhance, and interpret the natural resources; to provide a range of recreation opportunities and facilities, while not adversely affecting existing natural resources; and to evaluate, protect, and interpret cultural resources for public education and enjoyment. Partnership, interpretation, and cost-share funding opportunities are also available.

MANAGEMENT CONSTRAINTS

When agencies address management changes and other actions, they are constrained by their respective legislative authorities, budgets, personnel, current policies, and environmental limitations. The ability of land management agencies to manage environmental and recreational resources will always depend on maintaining sufficient personnel and on the ability of the agencies to obtain adequate funding to operate and maintain facilities and programs, as well as to protect and enhance existing opportunities and resources.

ALTERNATIVES

Reclamation developed three action alternatives (i.e., alternatives that prescribe a change in resource management in the study area). In addition to the action alternatives, Reclamation also formulated a No Action Alternative, as required by the Council on Environmental Quality regulations implementing NEPA. The No Action Alternative describes the management of the study area if an RMP were not implemented.

Under Alternative A (No Action Alternative), Reclamation resource management policies and practices within the study area would not change. Management actions to implement programs and policies would occur on a case-by-case basis to meet Federal, State, and local laws and regulations. Reclamation's capability to meet its water delivery obligations to Mexico would be maintained. Land use authorizations, such as licenses, leases, and permits, would be issued, as currently, on a case-by-case basis.

Under Alternative B (Natural Resources Conservation/Protection Alternative), Reclamation resource management policies and practices within the study area would change. Management actions would be implemented that would protect and enhance natural and cultural resources within the study area. In particular, flat-tailed horned lizard habitat protection would be maximized, pursuant to the 2003 Flat-Tailed Horned Lizard Rangewide Management Strategy. Reclamation's capability to meet its water delivery obligations to Mexico would be maintained. Existing second-party land uses would be scrutinized and eliminated when possible. Public access and recreational use within the study area would be limited to benefit natural and cultural resources. Recreational off-highway vehicle (OHV) use would be eliminated.

Under Alternative C (Recreation, Community, and Commercial Development Alternative), Reclamation resource management policies and practices within the study area would change. Public access and recreational use within the study area would be maximized. Opportunities for nature study, hiking, wildlife observation, camping and day use, and OHV use would be provided to the greatest extent possible, while adhering to the guidance and direction contained in the 2003 Flat-Tailed Horned Lizard Rangewide Management Strategy. Reclamation's capability to meet its water delivery obligations to Mexico would be maintained. Licenses, leases, permits, and other land use authorizations would be issued when compatible with public use of Reclamation lands. Areas deemed appropriate for community expansion, such as utility corridors, transportation routes, community open space, airport, landfills, sewage disposal sites, and recreation and leisure facilities, would be accommodated, as appropriate. Land exchanges or transfers within the study area would be encouraged.

Under Alternative D (Natural Resources Conservation/Protection with Limited Recreation, Community, and Commercial Development), Reclamation resource management policies and practices within the study area would change. Land use authorizations would be issued on a limited basis for recreation, community, and commercial developments while maintaining Reclamation's capability to meet its water delivery obligations to Mexico, protecting the natural and cultural resources, and conserving flat-tailed horned lizard habitat, pursuant to the 2003 Flat-Tailed Horned Lizard Rangewide Management Strategy. Land exchanges or transfers within the study area would be considered on a limited basis either to protect or enhance the natural or cultural resources in the eastern portion of the study area or to accommodate recreation, community, or commercial developments in the western portion of the study area.

EFFECTS OF THE ALTERNATIVES

No Action Alternative (Alternative A)

Under Alternative A (No Action Alternative), existing air quality conditions would continue. Continued unrestricted OHV use and new developments (roads and facilities) could lead to increased noise and increased wind erosion of soils.

Land use authorizations would continue to be issued on a case-by-case basis, which could lead to conflicting land uses; allow social, physical, environmental, or facility carrying capacities to be exceeded; adversely affect natural or cultural resources, or adversely affect Reclamation's ability to protect PRPU project purposes. Unrestricted OHV use would result in continued adverse effects. Construction of primary roads would be limited to those already under consideration and would meet the public's need and demand for access.

Under Alternative A, if groundwater were used to meet the water needs of new developments, the aquifer could be lowered. However, the quantities needed should not adversely affect Reclamation's ability to meet its water delivery obligations to Mexico, unless total pumpage for the 5-mile zone approaches 160,000 acre-feet per year, the limit stipulated by Minute No. 242 of the International Boundary and Water Commission. Moreover, if the water supply is obtained from outside the study area, groundwater within the study area should not be affected.

Wildlife and vegetation would continue to experience habitat loss and degradation, and special status species would continue to experience direct injuries, habitat loss, and degradation.

Public demand for developed and urban recreation facilities and opportunities would go unmet. Additionally, the quality of the recreational experience for those visitors seeking solitude and nature study most likely would decline, and opportunities to interpret the desert environment to further the appreciation and protection would go unrealized. Visual quality could be expected to gradually degrade. New development would continue to foster economic growth.

Adverse effects on cultural resources that might be occurring under existing, largely unregulated land uses would continue. Under normal circumstances, Indian sacred sites would not be affected. However, unauthorized public use would still have the potential to adversely affect these sites. Indian trust assets would not be affected.

Existing environmental justice conditions in the area would continue.

Natural Resources Conservation/Protection (Alternative B)

Alternative B would provide the maximum benefits for air quality among all the alternatives because of increased vegetative cover, fewer roads, and less development, leading to fewer airborne particulates. Noise levels would decrease because recreational OHV use would be eliminated and less development would be allowed.

The effects on soils would be the same as under Alternative A, except that eliminating recreational OHV use would decrease wind erosion of soil in denuded areas.

Fewer overall land uses would be allowed, and the community need for land uses and recreation would be less accommodated than under the other alternatives. Authorized land uses would be compatible with natural and cultural resources and should not adversely affect them.

Alternative B would provide for no secondary road construction and maintenance, and public demand for access would be minimally met.

Effects on groundwater availability would be similar to Alternative A. If the Hillander "C" tract were to be exchanged or transferred and removed from agricultural production, groundwater quality in the area would improve.

Alternative B would provide maximum benefits for vegetation and wildlife because of improved habitat protection and restoration, and the factors that cause mortalities and injuries of special status species would be reduced because of habitat protection and enhancement measures.

Public demand for developed, dispersed, and urban recreation facilities and opportunities, including OHV use, would go unmet. Many recreation users could be displaced to other areas. Interpretation and management of natural and cultural resources would emphasize proper use of the resources and protect resources by restricting access. This alternative would best protect the visual quality of the study area.

Land transfers or exchanges could result in decreased agricultural production and, thus, could adversely affect the agricultural sector of the economy. Eliminating existing land use authorizations could adversely affect the regional economy, depending on the type of authorization.

Alternative B would benefit cultural resources and Indian sacred sites because eliminating recreational OHV use would reduce unauthorized incursions onto the land. Intensive surveys for cultural resources also would be required. Indian trust assets would not be affected.

Any decrease in agricultural production could adversely affect minority farm workers. Water stations could benefit illegal immigrants, as well as others needing water in the study area.

Recreation, Community, and Commercial Development (Alternative C)

Alternative C would result in the greatest potential adverse effect on air quality among all the alternatives because of development of more unsurfaced roads and parking areas and increased industrial and vehicular emissions.

Alternative C also would have the greatest adverse effect on noise levels among all the alternatives because of development of new facilities and increased vehicle use of new and existing roads and OHV areas.

The effects on soils would be the same as under Alternative A; in addition, increased protection would be needed to prevent soil erosion during construction of facilities.

The comprehensive land use strategy under Alternative C would maximize recreation, community, or commercial development, which would provide the maximum benefit to nearby communities. Less land would be protected for natural and cultural resources. Primary and secondary road development would be allowed within the study area, which would allow public demand and need for access to be fully met.

If new developments rely on groundwater, groundwater availability potentially could decrease, and groundwater quality could be adversely affected. However, if the Hillander "C" tract were to be exchanged or transferred and removed from agricultural production, groundwater quality in the area would improve.

Vegetation and wildlife would be adversely affected under Alternative C because the factors that cause mortalities, injuries, habitat loss, and degradation would significantly increase.

Public demand for all types of recreation facilities and opportunities, including urban recreation and open space, would be most fully met. However, users seeking solitude, OHV users, and hunters could be displaced to other areas. Carrying capacities may be exceeded to the point that user conflicts may increase. This alternative would have the greatest adverse effect on visual quality among all the alternatives.

The comprehensive land use strategy would encourage commercial development but provide management guidance, which would provide more security for would-be investors than Alternative A and would benefit the commercial and recreation services sectors of the economy. Land transfers or exchanges and new land use authorizations could adversely affect the agricultural sector of the economy. However, these adverse effects could be offset by gains to the commercial and recreation services sectors of the economy.

Although regulated, OHV use still could result in incursions onto the land which could adversely affect cultural resources and Indian sacred sites. However, these adverse effects could be offset by intensive surveys for cultural resources and an OHV use plan. Effects on Indian trust assets would be the same as under Alternative A.

Effects on environmental justice would be similar to those under Alternative B. In addition, there would be potential for short-term employment for minority or low-income individuals.

Natural Resources Conservation/Protection with Limited Recreation, Community, and Commercial Development (Alternative D) (Preferred Alternative)

Alternative D would have a greater adverse effect on air quality than Alternative B but a less adverse effect than Alternative C. Alternative D would provide for less construction

of unsurfaced roads for recreational access and community and commercial development than Alternative C but more than for Alternative B. Limited development also would mean that adverse effects on noise levels would be less than under Alternative C.

The effect on soils would be the same as under Alternative C except that eliminating recreational OHV use would decrease wind erosion of the soil in denuded areas.

The comprehensive land use strategy under Alternative D would emphasize limited recreation, community, and commercial development throughout the study area, which would benefit nearby communities slightly less than Alternative C but more than Alternative B.

Construction of primary roads and the effects of this construction would be the same as under Alternatives A and B. Secondary roads would be constructed to provide access to campgrounds, day use facilities, and trailheads. Therefore, the environmental effects resulting from the construction of secondary roads would be greater than under Alternatives A or B and the same as under Alternative C. Public demand and need for access would be met.

The effects on groundwater availability would be less than under Alternative C and greater than under Alternatives A and B. The effects on groundwater quality would be the same as under Alternatives B and C.

Alternative D would substantially improve habitat protection and enhancement and would substantially reduce the factors that cause mortalities and injuries, as well as habitat loss and degradation.

Public demand for most types of recreation facilities and opportunities would be partially met, including the demand for urban recreation and open space. Some recreationists could be displaced. Alternative D would have less of an adverse effect on visual resources than Alternative C because fewer recreation and land use facilities would be developed, resulting in fewer intrusions on the natural landscape but a greater adverse effect than Alternatives A or B. Rehabilitation of closed OHV use areas would enhance visual quality.

The effect of Alternative D on the economy of the study area would be similar to that of Alternative C, except that net gains in the commercial and recreation service sectors of the economy may be less.

The effect on cultural resources and Indian sacred sites would be the same as under Alternative B. The effects on Indian trust assets would be the same as under Alternative A.

The effects on environmental justice would be the same as under Alternative C.

PLAN SELECTION

Reclamation followed a formal planning process in preparing this planning and environmental compliance document. After analyzing the four alternatives (or management plans), Reclamation selected Alternative D (Natural Resources Conservation/Protection with Limited Recreation, Community, and Commercial Development) as the preferred management plan. The management actions should be implemented within the 10-year planning period of the RMP; however, implementation depends on, among other things, cooperation of other involved entities, cost-sharing efforts, available funding, and the success of the proposed study area working group in resolving conflicts and providing valuable input to Reclamation in its effort to prioritize the actions for funding and implementation.

Reclamation has the primary stewardship responsibility to manage the lands under its jurisdiction in accordance with existing laws, regulations, policies, and guidelines. A primary step in the planning process was to identify goals and objectives and associated management actions needed to resolve identified problems, as well as to identify actions and opportunities that would not conflict with existing laws, regulations, policies, and guidelines. In addition, many of the goals and objectives and actions were formulated in response to basic land management principles and concepts.

The basic challenge was to select those combinations of goals, objectives, and management actions that were widely accepted by the public and agency personnel, and that could be implemented without serious conflicts, within the environmental resource limitations, within the planning life of the RMP, and consistent with existing laws, regulations, policies, and guidelines, as well as with PRPU project purposes.

The RMP assumes that Reclamation will follow existing and future Federal laws, regulations, and Executive orders when managing lands within the study area.

Acronyms and Abbreviations

Act	Colorado River Basin Salinity Control Act of 1974, as amended	mg/L	Milligrams per liter
ADEQ	Arizona Department of Environmental Quality	MLWA	Military Lands Withdrawal Act
ADOT	Arizona Department of Transportation	NAFTA	North American Free Trade Agreement
AGFD	Arizona Game and Fish Department	NEPA	National Environmental Policy Act
APE	Area of potential effect	NHPA	National Historic Preservation Act
ASH	Area Service Highway	OHV	Off-highway vehicle
BIA	Bureau of Indian Affairs	OIG	Office of the Inspector General
BLM	Bureau of Land Management	O&M	Operation and maintenance
BMGR	Barry M. Goldwater Range	P.L.	Public Law
Border Patrol	U.S. Border Patrol	ppm	Parts per million
CA	Conservation Agreement	PRPU	Protective and Regulatory Pumping Unit
CD	Compact disc	Rangewide Management Strategy	2003 Flat-Tailed Horned Lizard Rangewide Management Strategy
CEQ	Council on Environmental Quality	Reclamation	Bureau of Reclamation
CFR	Code of Federal Regulations	RMP/EA	Resource management plan/ environmental assessment
CSP	Commercial Services Plan	Service	U.S. Fish and Wildlife Service
DHS	Department of Homeland Security	SHPO	State Historic Preservation Officer
District	Hillander "C" Irrigation District	SIB	Southerly International Boundary
DM 613	<i>Departmental Manual 613</i>	SIP	State Implementation Plan
EPA	Environmental Protection Agency	SR195	State Route 195
ESA	Endangered Species Act	Stat.	Statute
FWCA	Fish and Wildlife Coordination Act	study area	Protective and Regulatory Pumping Unit
GIS	Geographic Information System	TDS	total dissolved solids
GSA	General Services Administration	TEA-21	Transportation Equity Act for the 21 st Century
GYPA	Greater Yuma Port Authority, Inc.	team	A Reclamation interdisciplinary team
IBWC	International Boundary and Water Commission	toolbox	Toolbox for the Great Outdoors
IBWC 242 Minute	Minute No. 242 of the International Boundary and Water Commission	treaty	1944 Water Treaty
INA	Immigration and Nationality Act	T&E	Threatened and endangered
Land Use Plan	Lower Colorado River Land Use Plan	U.S.C.	United States Code
MA	Management area	YAWRMG	Yuma Area Water Resources Management Group
MCAS	Marine Corps Air Station	YMPO	Yuma Metropolitan Planning Organization

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