

Lower Colorado River Multi-Species Conservation Program



Balancing Resource Use and Conservation

Big Bend Conservation Area LCR MSCP Conservation Area Specific Fire Management and Law Enforcement Strategy



January 2010

Lower Colorado River Multi-Species Conservation Program Steering Committee Members

Federal Participant Group

Bureau of Reclamation
U.S. Fish and Wildlife Service
National Park Service
Bureau of Land Management
Bureau of Indian Affairs
Western Area Power Administration

Arizona Participant Group

Arizona Department of Water Resources
Arizona Electric Power Cooperative, Inc.
Arizona Game and Fish Department
Arizona Power Authority
Central Arizona Water Conservation District
Cibola Valley Irrigation and Drainage District
City of Bullhead City
City of Lake Havasu City
City of Mesa
City of Somerton
City of Yuma
Electrical District No. 3, Pinal County, Arizona
Golden Shores Water Conservation District
Mohave County Water Authority
Mohave Valley Irrigation and Drainage District
Mohave Water Conservation District
North Gila Valley Irrigation and Drainage District
Town of Fredonia
Town of Thatcher
Town of Wickenburg
Salt River Project Agricultural Improvement and Power District
Unit "B" Irrigation and Drainage District
Wellton-Mohawk Irrigation and Drainage District
Yuma County Water Users' Association
Yuma Irrigation District
Yuma Mesa Irrigation and Drainage District

Other Interested Parties Participant Group

QuadState County Government Coalition
Desert Wildlife Unlimited

California Participant Group

California Department of Fish and Game
City of Needles
Coachella Valley Water District
Colorado River Board of California
Bard Water District
Imperial Irrigation District
Los Angeles Department of Water and Power
Palo Verde Irrigation District
San Diego County Water Authority
Southern California Edison Company
Southern California Public Power Authority
The Metropolitan Water District of Southern California

Nevada Participant Group

Colorado River Commission of Nevada
Nevada Department of Wildlife
Southern Nevada Water Authority
Colorado River Commission Power Users
Basic Water Company

Native American Participant Group

Hualapai Tribe
Colorado River Indian Tribes
The Cocopah Indian Tribe

Conservation Participant Group

Ducks Unlimited
Lower Colorado River RC&D Area, Inc.



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**Lower Colorado River
Multi-Species Conservation Program
Bureau of Reclamation
Lower Colorado Region
Boulder City, Nevada
<http://www.lcrmscp.gov>**

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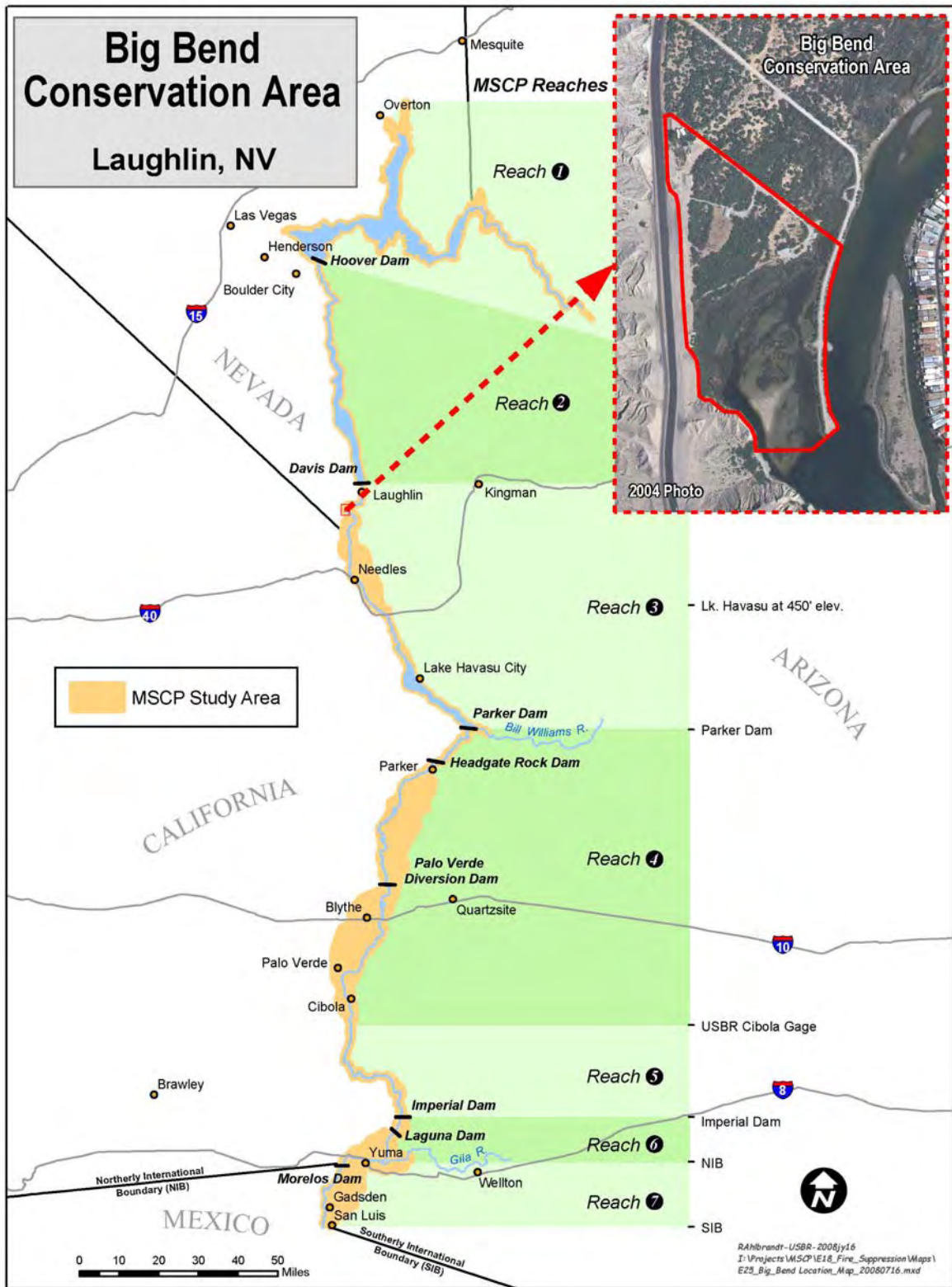
EXECUTIVE SUMMARY

Fire Management and Law Enforcement Strategy Big Bend Conservation Area

This document provides an overview of fire management and law enforcement strategies for the LCR MSCP Big Bend Conservation Area. Law enforcement authorities and agreements are discussed, as are fuel conditions, recommended suppression responses, safety considerations, and the like. For both law enforcement and wildland fire management, contact information for appropriate land managers and cooperators is provided. Short term and long term recommendations are provided for fire management operations.

Three critical points should be emphasized in the arena of fire management.

1. The greatest threat to the LCR MSCP habitat units at the Big Bend Conservation Area is wildfire itself. Given the potential fuel conditions, extreme weather conditions (e.g. red flag days), and an ignition, wildfire could sweep through the habitat before initial attack resources could even arrive at the site. Several recommendations are made for fuels management which would reduce the potential for wildfire of this intensity.
2. With less severe burning conditions, initial attack resources may arrive in time to conduct suppression activities. The second greatest threat to the LCR MSCP habitat is the damage which might be inflicted unintentionally by the activity of suppression resources. Several recommendations are made, some of which are common industry standards, of ways to reduce the potential adverse impact of suppression operations.
3. Given the probable short duration of fires in the LCR MSCP conservation area, the most effective means of ensuring consideration of stakeholder concerns and constraints in fire suppression operations is to convey those concerns and recommended constraints to the land managing agency, the Southern Nevada Water Authority, and subsequently to fire management and law enforcement first responders.



VICINITY MAP – BIG BEND CONSERVATION AREA



BIG BEND CONSERVATION AREA – LCR MSCP HABITAT AREA

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1.0 INTRODUCTION

The Lower Colorado River Multi-Species Conservation Program (LCR MSCP) is a multi-stakeholder, federal and non-federal partnership responding to the need to balance the use of lower Colorado River (LCR) water resources and the conservation of native species and their habitats in compliance with the Endangered Species Act. The LCR MSCP is a long-term (50-year) plan to conserve at least 26 species along the LCR from Lake Mead to the southerly International Boundary with Mexico through the implementation of a Habitat Conservation Plan (HCP). Most covered species are State and/or federally-listed special status species. The Bureau of Reclamation (Reclamation) is the entity responsible for implementing the LCR MSCP over the 50-year term of the program.

According to the LCR MSCP Final Habitat Conservation Plan (HCP, December 2004), this document supports conservation measure CMM1: “Reduce risk of loss of created habitat to wildfire”. The intent is for Conservation Areas to identify protection measures to supplement the fire management plan(s) and directive(s) of affected local, State, Tribal, and federal agencies. The Conservation Areas will also supplement existing management plans with information that supports the containment of wildfire and facilitates rapid response to suppress fires (ref: HCP Section 5.6.3).

The purpose of the Conservation Area Specific Fire and Law Enforcement Strategy is to provide information that will contribute to protection of the functions and values of created covered species habitats over the term of the LCR MSCP. Further, the strategy identifies and describes local law and wildland fire contacts, roles and responsibilities, infrastructure, and techniques and measures for the specific area. The specific strategy will provide information regarding law enforcement jurisdictions, generally accepted fire management practices, and operational recommendations that would support the management efforts of the Southern Nevada Water Authority and associated jurisdictional authorities involved with the Big Bend Conservation Area.

1.1 Location, Reach, and Ownership

Big Bend Conservation Area is located in Reach 3, river mile 266.5. The conservation area is owned by the Southern Nevada Water Authority (SNWA). The site is an inholding within the Big Bend of the Colorado (Nevada) State Park. The 15 acres of open water is managed by the State of Nevada.

1.2 Project Description, Purpose, and Status

The Big Bend Conservation Area consists of approximately 15 acres of backwater within the Nevada portion of the Colorado River and approximately 15 acres of upland adjacent to the backwater. Due to the limited number of available backwaters within Reach 3 and increasing urban development in the surrounding areas, securing this property for native fishes is a priority of the LCR MSCP. Thus, the purpose of the project is to provide for long-term security of the property, provide protection of the backwater, and allow for potential future habitat restoration activities.

2.0 LAW ENFORCEMENT AUTHORITIES, STRATEGIES, AND CONTACT INFORMATION

2.1 Authorities

Reclamation Lands: Real property administered by the Secretary, acting through the Commissioner of Reclamation, including acquired and withdrawn land and water surface areas under the jurisdiction of the Bureau of Reclamation (16 USC 4601-32(1)).

Reclamation Projects: Any water supply or water delivery project constructed or administered by the Bureau of Reclamation under the Federal Reclamation laws, and Acts supplementary thereto and amendatory thereof (16 USC 4601 § 32(1)).

Law Enforcement Authority at Bureau of Reclamation of 2001: Public Law 107-69, 115 Stat. 593: P.L. 107-69 amended the Reclamation Recreation Management Act of 1992 in order to provide for the security of dams, facilities, and resources under the jurisdiction of Reclamation.

Activities Associated with Enforcing Federal Law: Enforcement of federal law on Reclamation lands and water bodies is governed by P.L. 107-69, Law Enforcement Authority at Bureau of Reclamation Facilities, and 43 CFR Part 422, Law Enforcement Authority at Bureau of Reclamation Projects. The Reclamation Law Enforcement Administrator and Regional Special Agent will be involved in determining when additional law enforcement resources are necessary to enforce federal laws on lands or water bodies under Reclamation jurisdiction. An interagency agreement between the Bureaus in the Department of the Interior provides for cross designation of Department law enforcement officers to provide law enforcement and investigative support in areas under their responsibility or control. Reclamation may enter into additional agreements to more fully detail the scope, objectives, and the range of responsibilities. Reclamation's Regional Special Agent and Regional Security Officer will be involved in planning and implementation of contracts, interagency agreements, and cooperative agreements for law enforcement services. The Law Enforcement Administrator is the Reclamation official authorized to enter into agreements that allow law enforcement personnel of any other federal agency with law enforcement authority (with the exception of the Department of Defense) or law enforcement personnel of any State or local government, including an Indian tribe, when deemed economical and in the public interest, through cooperative agreement or contract, to act as law enforcement officers to enforce federal laws and regulations within a Reclamation project or on Reclamation lands, with such enforcement powers as may be so assigned to them by the Secretary of the Interior. The length of term for these law enforcement agreements is limited to three (3) years. Generally, the closest available resource will be requested.

Activities Associated with Enforcing State and Local Law: In most instances, responsibilities for enforcing State and local laws are the responsibility of the recreation managing partner and are addressed in the long-term management agreement. However, if Reclamation and its managing partner determine that additional resources are necessary to enforce State and local laws on Reclamation lands or water bodies, Reclamation will request those services from State, county, or local law enforcement agencies. In both instances, Reclamation's Regional Special Agent will be involved in planning and implementation of any contracts or agreements. Any such contracts

or agreements shall also be coordinated with the Regional Security Officer to ensure efficiency and consistency with contracts and agreements that have been made with the same entity for security of Reclamation facilities. These types of law enforcement contracts and agreements will be limited to not more than five years and may require some type of financial commitment by Reclamation or its partner. If additional law enforcement resources are necessary, Reclamation may assist in providing funding. Procurement contracts are the only instruments that can transfer funds to a State, county, or local law enforcement agency.

2.2 Jurisdiction and Agreements in Effect:

Las Vegas Metropolitan Police is the primary law enforcement response agency for the Big Bend Conservation Area in Laughlin, Nevada. The 15 acres of dry upland habitat are owned by the Southern Nevada Water Authority. Additional law enforcement assistance on the conservation area may be provided by State Park Rangers (at the adjacent Big Bend of the Colorado State Recreation Area), the Nevada Highway Patrol, and Nevada Department of Wildlife game wardens.

The Nevada Department of Wildlife, Division of Law Enforcement, is responsible for protecting Nevada's wildlife resources and ensuring the safety of the boating public, which includes enforcing the provisions of Nevada Revised Statutes and all other regulations that affect wildlife issues. Nevada game wardens have broad authority to enforce all wildlife and boating regulations on lands throughout the State including Big Bend Conservation Area.

2.3 Local Law Enforcement Contact Information

Big Bend Conservation Area, LCR MSCP Reach 3

- Location: Laughlin, Nevada
- Land Owner: Southern Nevada Water Authority, 702-862-3400
- Law Enforcement Contact: Las Vegas Metropolitan Police Department, Sgt. Bruce Harper, 702-298-2223

Additional Law Enforcement Assistance

- Nevada Department of Wildlife, Law Enforcement Division; Southern Region, Las Vegas, NV, 702-486-5127
- Nevada Highway Patrol, Laughlin Sub-Station, Sergeant Novelt Mack, 702- 298-7455
- Big Bend of the Colorado State Recreation Area, Alan Conklin, 702-298-1859

2.4 Applicable Legal Documents, Rules and Regulations:

- NV Revised Statues 501-504
- DM 413
- 43 CFR 422-423 [BOR]

3.0 EXISTING HABITAT AND WILDLAND FIRE RISK

3.1 Existing Habitat

Big Bend Conservation Area was established primarily to protect an existing 15-acre backwater from development. An adjacent upland parcel (a former Boy Scout Camp) was purchased by the Southern Nevada Water Authority. Together, these two parcels form the Big Bend Conservation Area.

The backwater area is fringed with marsh habitat. The upland parcel is a mix of mesquite and tamarisk.

Big Bend of the Colorado State Recreation Area borders the conservation area on the north, the Colorado River borders on the east and south. A paved highway borders the west side, with sparse upland vegetation west of the road.

3.2 Wildland Fire Hazard/Risk

The 13 Northern Forest Fire Laboratory (NFFL) Fuel Models were developed in the early 1980s to predict fire behavior during the peak of the fire season when wildfires pose greater control problems. The Standard (40) Fuel Models were developed in 2005 to improve the accuracy of fire behavior predictions outside of the severe period of the fire season, such as prescribed fire and fire use applications. Both are stylized mathematical models which consider characteristics such as fuel load, bulk density, fuel particle size, heat content, and moisture of extinction. Both assume homogeneous fuel beds and, when combined with weather and topographic inputs, yield fire behavior predictions for surface fires.

The marsh habitat is best described by NFFL Fuel Model 3, a grass model. Neither the 13 NFFL Fuel Models nor the Standard (40) Fire Behavior Fuel Models developed by the Rocky Mountain Research Station closely fit the upland habitats. However, Fuel Model 6, a tall shrub model, may be the closest model to describe the tamarisk stand. In the context of the Rocky Mountain models, GR7 (a grass model) would best fit marsh habitats; SH5 (a shrub model) would seem to fit tamarisk stands with sparse understories.

Adjacent fuels which could constitute a hazard to the habitat areas are tamarisk stands. These are best described by shrub models NFFL FM6 or Standard FM SH5. Intense wildfire in these stands could result in fire spotting into the habitat areas.

Local firefighter experience may have identified other fire behavior models or appropriate modifications of standard models which better predict wildfire behavior in these riparian fuels. If so, it would be prudent to give preference to these local adaptations over stylized fuel models.

Fuels on the parcel are tamarisk, arrowweed, and mesquite with little understory vegetation, and cattails and rushes around the backwater. Wildland fire would spread readily through the upland habitat under severe conditions. If ignited, the marsh habitat would burn readily and could cast firebrands into adjacent areas.

Virtually all fires in the local area are human-caused. The configuration of the area—relative to water, roads, and the developed campground—makes surface fire spread from adjacent areas quite unlikely. Likely sources of ignition within the parcel include unattended (and illegal) campfires, lightning, fireworks from adjacent areas, and discarded smoking materials.

Values at risk include a block storage building, well house, and picnic shelters located on the upland property. The State Recreation Area campground is neatly maintained and probably not at risk. Water is readily available for suppression activities.

4.0 FIRE MANAGEMENT

4.1 Fire Management Goals and Objectives

- Safeguard public and firefighter safety.
- Utilize a variety of fuels management strategies to achieve management objectives.
- Avoid unacceptable effects of wildfire and suppression activities.
- Work closely with surrounding fire agencies to implement the fire and law enforcement strategy.

4.2 Suppression Response

The full range of suppression strategies is available to managers provided that selected options do not compromise firefighter and public safety, cost-effectiveness, benefits, and values to be protected.

The suppression strategy on the Big Bend Conservation Area would usually be to minimize fire size. That strategy may utilize a range of tactics including direct attack, parallel attack, and indirect attack with handcrews, engines, aircraft, and/or heavy equipment. Burning out fire lines, enhancing a defensible boundary, backfiring from strategic barriers, using existing natural barriers or constructed barriers, cold-trailing, and other activities may accompany the more standard tactics. An initial action may be simply monitoring fire behavior while deciding which tactics would be most effective. All of these actions are employed with the intention of safely suppressing the wildfire with minimal overall costs and damage to resources.

4.3 Interagency Cooperation

Federal and State agencies in Nevada have entered into Wildland Fire Management Joint Powers Master Agreements whereby they agreed to work cooperatively to improve efficiency by facilitating the coordination and exchange of personnel, equipment, supplies, services, and funds among the agencies for management of wildland fires, presidential declared emergencies, and disasters or other emergencies under the Federal Emergency Management Agency's authority.

4.4 Local Wildland Fire Resources

In 2006 the Bureau of Reclamation entered into an agreement with the Nevada Bureau of Land Management to provide a full range of fire management services for Reclamation owned lands. It is assumed that the LCR MSCP will enter into a similar agreement. Services include wildfire suppression, prevention, patrol, and planning. The Las Vegas BLM fire suppression program relies on four (4) heavy engine modules, an exclusive use helicopter module and severity-ordered single engine air tankers to implement the full range of appropriate management response options to wildland fires.

Contact information:

- BLM Las Vegas Fire: Kevin Oliver 702-515-5135 (o) 702-335-3191 (c).
- Clark County Fire Department: Chief Leary, 702-455-7311.

Please see Section V- A Fire Management Plan Southern Nevada for a more detailed description of the Fire Organization including staffing, equipment and budget.

Clark County Fire Department

The Clark County Fire Department has primary responsibility for all fire suppression actions occurring in Clark County, Nevada, including wildland fire management. The Clark County Fire Department is linked to the 911 system. The non-emergency number for the Fire Department in Las Vegas, Nevada, is 702-455-7311. The primary contact is Chief Leary.

Las Vegas Interagency Dispatch Center

The Las Vegas Interagency Dispatch Center (LVIDC) is located in Las Vegas, Nevada. As the name implies, LVIDC is an interagency dispatch center managed by the Bureau of Land Management. LVIDC dispatches equipment and personnel for several wildland fire management agencies in the Western Great Basin. LVIDC is the focal point for mobilizing firefighting resources between units within the dispatch area responsibility, coordinating incoming resources into the dispatch area, dispatching resources mobilized out of the dispatch area, and collecting and disseminating fire intelligence information within dispatch area and with the Western Great Basin Coordination Center, Reno, NV. LVIDC is linked to the 911 system. The non-emergency number for LVIDC is 702-515-5300.

An interagency agreement is in place that states that the closest available forces will be dispatched to a wildland fire. The LVIDC processes all requests for air resources and other fire suppression forces, including Incident Management Teams, for the Lower Colorado River.

The Nevada Division of Forestry

The Nevada Division of Forestry (NDF) has direct wildland fire protection responsibility for 8.7 million acres of forest, range, and watershed lands in Nevada, and has established a partnership with Clark County. The NDF has primary responsibility for wildland fire suppression on all state lands, including Big Bend of the Colorado State Recreation Area. Their non-emergency number is 702-872-5483.

Department of the Interior Agencies

Firefighters assigned to the Bureau of Land Management's Southern Nevada District located in Las Vegas, Nevada, are responsible for fire management activities on BLM-administered lands in Clark County, Nevada. The Southern Nevada District fire suppression resources are dispatched through the LVIDC. The non-emergency number for the BLM is 702-515-5000. The primary contact is Greg Marfil, Fire Management Officer.

The Bureau of Indian Affairs maintains a fire suppression force at Fort Mohave, which is dispatched through the Ft. Mohave Mesa Fire Department. The Fire Duty Officer can be contacted at 702-535-4911.

The BIA Fort Yuma and Colorado River Agencies and the BLM Yuma District have a Memorandum of Understanding that establishes how they will cooperatively work within their joint response area.

Generally, the NDF and/or BIA suppression forces are secondary responders.

4.5 Suppression Constraints Specific to Big Bend Conservation Area

Suppression constraints would include the following:

- Avoid using retardants within 300 feet of open water.

5.0 FIREFIGHTER AND PUBLIC SAFETY

5.1 Safety Considerations

Climatic conditions, such as low humidity, high temperatures, and warm, dry winds can combine with heavy dry fuels to produce high intensity wildfires that spread rapidly and are difficult to suppress. Due care and caution must be exercised at all times when taking suppression action on a wildland fire within or threatening the Big Bend Conservation Area.

Wildland firefighters emphasize the basic tenants of firefighter safety: the 10 Fire Orders, 18 Watch Out Situations, the Common Denominators of Fire Behavior on Tragedy Fires, and LCES (Lookouts, Communications, Escape routes, and Safety zones). The potential fire behavior conditions that exist on the LCR, particularly the potential for high rates of spread and profuse spotting, make it imperative that firefighters fully understand and embrace all the elements of fireline safety. A complete summary of fire fighter safe practices is available in Chapter 5 of the Fireline Handbook (NWCG Handbook, PMS 410-1).

Firefighter and public safety is the first priority of the wildland fire management program. When evaluating an appropriate management response, the Incident Commander should consider risks to public and firefighter safety, recognizing that no natural or cultural resource, home, or item of property is worth a human life. Incident Commanders should develop and establish incident objectives, strategies, and operational tactics that ensure firefighter and public safety.

Site specific safety concerns for the Big Bend Conservation Area include:

- The potential for extreme fire behavior with rapid rates of spread, which may be exacerbated by medium and long range spotting.
- There is only one means of ingress and egress that has heavy vegetation on both sides of the road.
- Smoke management issues on or near the Colorado River.
- Venomous snakes and insects may be present.

5.2 Medical Facilities and Ambulance Services

The University Medical Center, located in Las Vegas, Nevada, is the closest Level I trauma center, Level II pediatric trauma, and Lions burn care center. The non-emergency number for the trauma center is 702-383-2661.

Non-critical patients are transported to Mohave Valley Medical Center, 1225 Hancock Road, Bullhead City, Arizona. The non-emergency number for the hospital is 928-763-2273. The medical director makes the decision as to where a patient is to be transferred and the method of transport.

6.0 FUELS MANAGEMENT

6.1 Non-Fire Fuels Management

If native riparian vegetation is reestablished, fuels management in the conservation area should consist primarily of reducing fine herbaceous fuels and maintaining fuel discontinuities.

6.2 Prescribed Fire

Use of prescribed fire to rejuvenate marsh habitats might be considered concurrent with removal of tamarisk from the upland area. Without removal of the tamarisk, there is an elevated risk of fire spreading onto the upland parcel, threatening the wooden structure and the adjacent Big Bend of the Colorado State Recreation Area (though Big Bend of the Colorado State Recreation Area is cutting and chipping tamarisk to reduce fuel loading).

7.0 WILDLAND FIRE PREVENTION/OUTREACH

Since a majority of all fires that occur on the Colorado River are human caused, any fire management planning effort should emphasize fire prevention. Once fire causes are evaluated, it is possible to determine when, where, and how to implement effective fire prevention programs that fall within one of four broad categories. These categories are:

1. Education—aimed at changing people’s behavior by awareness and knowledge.
2. Engineering—reducing or eliminating fire risks and hazards.
3. Enforcement—gaining compliance with fire regulations and ordinances.
4. Administration—planning, budgeting, and training.

The interagency fire community and local fire and emergency management organizations have a good system for determining the level of fire danger and deciding when fire restrictions are necessary. Notices and posters are printed and distributed by all fire management agencies.

The sources of ignition are often attributable to visitors recreating outside the habitat area. Traditional means to contact visitors may prove difficult because the many recreational users are focused on the Colorado River and may be entirely unaware of the habitat areas. In consideration of the demographics, the best locations to post fire danger warning signs and fire restriction notifications are in prominent locations where visitors might stop. This would include convenience stores, gas stations, marinas, launch ramps, boat repair shops, and other similar facilities at or near the river.

Attempts should be made to work with local and regional media to call attention to the wildfire threat facing resources along the LCR. The National Wildfire Coordination Group issued a Wildfire Prevention and Media Guide (PMS 458) that is available on the Internet at: <http://www.nwcg.gov/pms/docs/wpsandmedia.pdf>. This guide provides information and guidance to establish a media program. This tool would best be implemented using an interagency approach.

8.0 FIRE MANAGEMENT RECOMMENDATIONS

The following suggested tasks and actions are submitted by Wildland Fires Associates, and are not intended to change or re-direct existing management of the Big Bend Conservation Area.

8.1 Prevention

- Conduct prevention patrols during periods of very high fire danger or elevated human-caused risk (e.g. Fourth of July and fireworks).
- Work with nearby campground staff and hosts at the State Recreation Area to encourage them to contact visitors to emphasize fire safety and prevention.
- Issue press releases and distribute materials, where appropriate, informing the public about the benefits of prescribed fire as opposed to the adverse impacts of wildland fire.
- Public contact should be made through outreach with adjacent landowners to explain the fire management program, to emphasize prevention of human-caused wildfires, and to identify actions that landowners can take to minimize the risk of wildfire on their property.
- Post appropriate signage during periods of high fire danger.
- Encourage land management agencies to restrict open fires and specify the use of propane stoves during periods of high fire danger.
- Continue to work with the National Ad Council to air Public Service Announcements featuring Smokey Bear on local radio stations, including Spanish language stations and implement a program that calls attention to the impacts of wildfires to resources along the LCR.

8.2 Preparedness (Presuppression)

Administrative:

- Conduct patrols using a variety of means, including trucks, engines, aircraft, and/or boats during periods of extreme fire danger.

Fuels Management:

- Periodically clear established firebreaks in nearby tamarisk stands to preserve their usefulness for burning out in advance of a wildfire.
- Establish additional constructed firebreaks in adjacent tamarisk stands. These firebreaks would not of themselves stop fire spread in the habitat, but they would provide firefighters a tactical position from which to burn out.
- Consider use of prescribed fire to rejuvenate decadent marsh areas.

8.3 Suppression

Constraints:

- Avoid using retardants within 300 feet of open water.

Strategies and Tactics:

- None identified.

8.4 Other

- Remove non-functional power line and power poles to reduce the likelihood of a lightning ignited fire.
- Investigate wildfires to determine cause.