



SAVING THE LAST GREAT PLACES ON EARTH

## SCOTT M. MATHESON WETLANDS PRESERVE Wildfire Response Plan

**TO REPORT A FIRE CALL**  
**Grand County Sheriff's Office Dispatch – 911**  
**Secondary Contacts**

**The Nature Conservancy Moab Project Office – 259-4629**  
**Damian Fagan TNC Resource Advisor – 259-7205 (home)**  
**Sue Bellagamba TNC Resource Advisor – 259-7607 (home)**

**Submitted by:**

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TNC Colorado/Green Rivers Area Program Manager

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Date

**Reviewed by:**

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Moab Valley Fire Protection District Chief

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Date

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Utah Division of Forestry, Fire and State Lands, Area Manager  
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Date

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TNC Fire Manager

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Date

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Utah Division of Wildlife Resources

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Date

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Wildfire Response Plan**

**Table of Contents**

I.	Introduction	2
II.	Scott M. Matheson Wetlands Preserve	2
	A. Conservation Targets	3
	B. Altered Fire Regime	3
III.	Protection and Command Responsibility	4
IV.	Scott M. Matheson Wetlands Preserve Site Information	4
	A. Location	4
	B. Road Access	4
	C. Site Description	5
	1. Fuels	5
	2. Elevation, topography, soils	5
	3. Fire Sensitive Areas	5
	4. Open Water Areas	5
	D. Values at Risk and Hazards	5
	1. Boardwalk	5
	2. Barn and Outbuildings	6
	3. Moab Project Office	6
	4. Water Wells	6
	5. Private and Commercial Developments Bordering the Preserve	6
	6. Petroleum Product Pipelines	6
	7. Powerlines	6
	E. Fire Season	7
	F. Staging Areas	7
	G. Water Resources	7
	H. Firefighter Safety	7
	I. Evacuation Routes	7
V.	Wildfire Response	7
	A. Reporting a Fire Primary Resource: 911	7
	B. Secondary Resources	8
	C. TNC Personnel	8
VI.	Post-fire Monitoring	8
VII.	Presuppression	8
VIII.	Fire Records and Reports	9
IX.	Annual Fire Management Plan Review	9
	Appendix A. Radio Communications	9
	Figure 1. Site Map	10
	Figure 2. Scott M. Matheson Wetlands Preserve Wildfire Response Map	11

# SCOTT M. MATHESON WETLANDS PRESERVE

## Wildfire Response Plan

### **I. Introduction**

The State of Utah's Division of Forestry, Fire and State Lands (DNR) completed the *Moab Sloughs Fire Management Plan* in 1998 and updated it in 1999. This document, completed by the Grand County Fire Warden, analyzed the severity of wildfire threat to the Scott M. Matheson Wetlands Preserve (Matheson Preserve). The plan assessed recommendations to decrease the threat of wildland fire to firefighters and residents in the planning area, and outlined a pre-initial wildfire attack plan with command responsibilities and resource locations. The *Scott M. Matheson Wetlands Preserve Wildfire Response Plan* incorporates the *Moab Sloughs Fire Management Plan* into this planning effort, with additional site-specific information pertaining to the Matheson Preserve.

Due to the close proximity of the Matheson Preserve to the City of Moab, as well as expanding residential and commercial developments in Grand County, the need for a more comprehensive wildland fire management plan that includes the need or use of prescribed fire for threat abatement should be reviewed. In the interim, this Wildfire Response Plan provides an outline for The Nature Conservancy (TNC), Utah Division of Wildlife Resources (UDWR) and fire control agencies to respond to a wildfire in the Matheson Preserve.

### **II. Scott M. Matheson Wetlands Preserve**

The Scott M. Matheson Wetlands Preserve is a flooded bottomland meander on the Colorado River near Moab, Utah. The Matheson Preserve is the largest intact wetlands along the Colorado River in Utah and is managed primarily for its natural and biological values. The Preserve is open for public use.

The 890-acre preserve was purchased in 1990, with approximately 464.2 acres owned in fee title by The Nature Conservancy and 425.8 acres owned by the Utah Division of Wildlife Resources. The Nature Conservancy has a Memorandum of Understanding with the Utah Department of Natural Resources Division of Wildlife Resources for TNC to provide daily management of the Matheson Preserve. The preserve is approximately ½ mile northwest of the City of Moab, and is managed from the Moab Project Office located at 820 Kane Creek Boulevard, Moab, UT 84532.

Terrestrial communities in the preserve vary depending upon water regimes and soil chemistry. Large stands of hardstem bulrush (*Scirpus acutus*) surround the open water-aquatic communities that occur in the central and southern portions of the preserve. The flooded willow community is dominated by black willow (*Salix goodingii*), which reaches its northern distributional limit in the Rocky Mountain Region near Moab. A large tamarisk (*Tamarix chinensis*) community covers the northwest portion of the preserve, and is intermixed with stands of Fremont's cottonwood (*Populus fremontii*), coyote willow (*Salix exigua*) and Russian olive (*Eleagnus angustifolia*) throughout the Preserve. A sedge/Olney's bulrush community (*Juncus* sp./*Scirpus americanus*) occurs in the east central area of the preserve.

Over 247 terrestrial vertebrates have been recorded in the preserve with the majority being avian species. The avian fauna changes seasonally and is defined by wintering species, seasonal migrations of waterfowl and shorebirds, summer nesting neotropical migrants, and year-round residents.

Eighteen species of mammals have been recorded in the preserve, including mule deer (*Odocoileus hemionus*), raccoon (*Procyon lotor*), gray fox (*Urocyon cinereoargenteus*), coyote (*Canis latrans*), river otter (*Lutra canadensis*), beaver (*Castor canadensis*), and several species of bats.

Notable amphibian and reptilian species include northern leopard frog (*Rana pipiens*), bullfrog (*Rana catesbiana*), Woodhouse's toad (*Bufo woodhouseii*), and western terrestrial garter snake (*Thamnophis elegans*).

Fish species that occur in the preserve are common carp (*Cyprinus carpio*), channel catfish (*Ictalurus punctatus*), western mosquitofish (*Gambusia affinis*), and red shiners (*Cyprinella lutrensis*). Because of dikes and the altered hydrologic regime of the Colorado River, native fish of the Colorado River rarely have access to the aquatic communities in the wetlands. However, the preserve may engage in future efforts to restock razorback suckers (*Xyrauchen texanus*) and bonytail (*Gilia elegans*), both listed as endangered species under the Endangered Species Act.

## **A. Conservation Targets**

Several wildlife species and natural communities of concern, as identified in The Nature Conservancy's Colorado Plateau Ecoregional Plan, occur in the preserve. These targets are Large River – Desert Riparian Woodland/Shrubland; Emergent Marsh Complex; Northern leopard frog; razorback sucker; bonytail; and concentrations of neotropical migrants. Other state or federal species of concern, such as peregrine falcon (*Falco peregrinus*), bald eagle (*Haliaeetus leucocephalus*), willow flycatcher (*Empidonax traillii*), and yellow-billed cuckoo (*Coccyzus americanus*) also occur in the preserve.

## **B. Altered Fire Regime**

Desert riparian communities in southern Utah are fire-adapted systems. Prior to 1900, riparian areas experienced low-intensity fires at a rate of 2-5 per century. These fires were highly variable and depended upon site-specific fuels and conditions. Wildfires in riparian communities were presumably uncommon due to the high moisture content of the riparian soils and vegetation, and the low frequency of lightning strikes in low-lying drainages and valley bottoms. These infrequent fires often burned in a mosaic pattern leaving much of the vegetation and soil only lightly disturbed, and helped maintain a diversity of plant species. Dominant members of the *Populus* and *Salix* genera respond to low-intensity fires by either root sprouting or survival through older individuals.

The suppression of naturally occurring fires, the altered hydrologic regime of the Colorado River and an increase of exotic/invasive plant species in riparian communities has resulted in an

increased fuel loading within riparian zones. As a result, there has been an increase in both fire frequency (5-10 per century) and intensity in many riparian areas throughout the Southwest - much to the detriment of the native plant community that can not survive the high-intensity fires.

Compounding the threat of wildfire to riparian communities in the Matheson Preserve, is the close proximity of residential and commercial properties to the preserve, and the potential impacts of a wildfire on human safety, air quality, commercial activities, highway or road closures, and loss of private property.

### **III. Protection and Command Responsibility**

The Moab Valley Fire Protection District (MVFPD) has suppression responsibilities for private lands within the Fire Protection District boundaries in Grand County, Utah (Utah State Code 17A-2-611). The State of Utah's Department of Natural Resources' Division of Forestry, Fire & State Lands has jurisdiction on non-federal lands within unincorporated areas of Grand County (Utah State Code 65A-8-1) and assists MVFPD in meeting Grand County's fire responsibilities. The Division has a responsibility for wildland fire protection on all state land which would include the northern portion of the Matheson Preserve. For the Matheson Preserve, all emergency calls are routed through the Grand County Sheriff's Office Dispatch (**911**). MVFPD, the initial fire response agency, will initiate the Incident Command System and may request support from the list of secondary resources once the extent of the fire is determined.

All wildfires within the Matheson Preserve will be extinguished. It is a Nature Conservancy Fire Management requirement that all wildfires are reported and responsibility for fire control efforts is turned over to the appropriate fire control agency. Fire suppression actions will be based upon fire fighter and public safety as the first priority. A wildfire suppression analysis will be conducted for each fire that escapes initial attack to consider the next appropriate suppression action.

### **IV. Scott M. Matheson Preserve Site Information**

#### **A. Location**

The Matheson Preserve is located northwest of the City of Moab, Grand County, Utah within portions of sections 26, 27, 34, and 35, T. 25 S., R. 21 E., and sections 2 and 3, T. 26 S., R 21 E.

#### **B. Road Access**

There are several paved and dirt roads that access different sections of the preserve; vehicle access within the preserve is limited. All TNC gates, except for the Kane Creek Boulevard Main Entrance, have combination locks and the number is ####. Main access points to the perimeter of the preserve are:

- 1) Stewart Lane, which provides vehicle access to the boardwalk trail and southern portion of the preserve.
- 2) 400 North, which provides access to the Higgins Lane area.
- 3) A deeded easement on the south end of the Moab Valley RV and Campark, which provides access to the north end of the preserve. The pipeline ROW road on the north

end may be impassible in wet weather and the Seasonal Road (Figure 2) may be impassible due to wet weather or dry, loose soils.

- 4) Kane Creek Boulevard. The Moab Project Office is located at 820 Kane Creek Boulevard and the main preserve entrance gate is at 950 Kane Creek Boulevard.

## **C. Site Description**

### **1. Fuels**

The primary Fuel Type within the Matheson Preserve is Fuel Model 3, Tall Grass, and the secondary fuel type is Fuel Model 4, Brush. Mosaics of vegetation exist in the preserve depending upon the presence of surface or subsurface water. TNC will work with local fire agencies to review fuel models to analyze potential fire behavior. This modeling will assist in fuel treatment projects.

Thickets of salt cedar, Russian olive, Fremont's cottonwood and coyote willow occur along the edge of the Colorado River and in other portions of the Preserve. Dense stands of bulrush, cattail and grasses occur around the open water areas. In general, the vegetation forms dense thickets throughout the preserve that may limit access.

### **2. Elevation, topography and soils**

Elevation within the preserve ranges from 3,952-3,970 feet. Topography is level. Soils on site are assorted Colorado River or Mill Creek alluvial sands, silts and clays, with aeolian deposits. Hydric soils are generally alkaline throughout the Matheson Preserve.

### **3. Fire-sensitive areas**

No threatened, endangered or rare plants, animals or natural communities exist within the preserve. Exceptions to this would be migratory birds. If possible, without undue hazards to firefighters or the public, protection of the cottonwood and black willow groves would constitute a higher priority than other areas in the Preserve, except for those areas with Values-at-Risk.

### **4. Open water areas**

Groundwater, irrigation diversions and flooding by the Colorado River are the primary water sources to the Matheson Preserve. Surface water levels vary during the year. Water management activities are underway to increase the acreage of surface water in the preserve.

## **D. Values at Risk and Hazards**

### **1. Boardwalk**

There are limited structures in the Matheson Preserve. A pedestrian boardwalk, made of recycled redwood, was constructed for access into the southern portion of the preserve. Trail spurs end at a wildlife observation blind and a teaching circle platform.

### **2. Barn and Outbuildings**

An old barn and associated outbuildings are located in the southern portion of the preserve and may be accessed from Stewart Lane. A mowed and maintained fuel break surrounds portions of this site.

### **3. Moab Project Office**

Located at 820 Kane Creek Boulevard, the TNC-owned Moab Project Office is located near the main entrance to the preserve. Fuels surrounding the office area are low grasses and shrubs, with lawn, driveway, and landscaped plantings adjacent to the brick building.

### **4. Water Wells**

Three water wells have been drilled in the preserve. One, located near the end of Stewart Lane, is inoperable. The other two wells are located at the end of 400 North, inside the Preserve, and between the two constructed ponds on the north end of the preserve. These two wells could be used in wildfire operations.

### **5. Private and Commercial Developments bordering the Preserve**

There are a number of commercial developments, agricultural lands and private residences that border the preserve. Potential impacts exist to these properties from a wildfire originating in the preserve and escaping past the boundary. Potential also exists for a wildfire to originate on private property and escape onto the preserve.

### **6. Petroleum Product Pipelines**

Three underground petroleum product pipelines bisect the preserve. There are two aboveground valves for these pipelines: one is located on the north end in a fenced off area, and the other is located southwest of parking area at the end of 400 North. Both valves are located within the ROW and are clearly visible. A fourth underground pipeline, owned by Questar, borders Kane Creek Boulevard and carries natural gas to the Moab Salt Plant. Emergency phone numbers are:

**Northwest Pipeline – Todd Stubbs (Moab District Mgr.) 259-7422 (office) or 260-1536 (Cell)**

**24 Hour Emergency Number (800) 972-7733 (Salt Lake City)**

**MAPCO – Ryan Glazebrook 260-1280 (cell) or 259-2832 (home)**

**Questar Gas- 259-7137**

### **7. Powerlines**

Several different power lines owned by Utah Power cross the preserve. A distributional power line crosses the southern portion of the preserve, connecting Stewart Lane to Kane Creek Boulevard. A kv-345 high voltage transmission line parallels Kane Creek Boulevard and crosses the Colorado River at the Portal. A kv-12 transmission line traverses across the northeast corner of the preserve just downstream of the Colorado River Bridge on U.S. Highway 191. Notification of a fire and/or request for mitigation action to protect the public and firefighters should be directed to: **Utah Power's Business Center, 1-888-221-7070**. This is a 24 hours-a-day/7 days-a-week contact number and they will dispatch a local representative.

## **E. Fire Season**

Although a wildfire may occur anytime throughout the year, the fall and winter months represent a higher fire danger than during the summer. This is the drier period in the preserve with dead vegetation, low humidity, and reduced acreage of surface water. In

spring and summer fuels are wet and green, relative humidity is high, and surface water is often present.

#### **F. Staging Areas**

Predetermined staging areas along the preserve's boundary are shown in Figure 2. These locations may change depending upon fire conditions or by direction of the Incident Commander.

#### **G. Water Resources**

Natural water sources occur in the preserve but water levels may fluctuate seasonally. Helitack operations, if necessary, may be able to draw water from the preserve's Central Pond or from the Colorado River. Numerous ponds and shallow water areas could be accessed with portable pumps, but may require very long runs of hose (greater than 500 feet).

#### **H. Firefighter Safety**

Firefighter and public safety concerns outweigh resource protection. Throughout the preserve, wet, marshy soils and thick stands of bulrush or salt cedar exist that may hinder fire fighting efforts. Escape routes are limited for interior attacks.

#### **I. Evacuation Routes**

Figure 1 shows the vehicle evacuation routes from the Matheson Preserve and nearby private property areas. Allen Memorial Hospital is located at 719 West 400 North. Phone is 259-7191.

### **V. Wildfire Response**

#### **A. Reporting a Fire Primary Resource: 911.**

Grand County Sheriff's Office Dispatch **911** or **259-8115**. For non-emergency calls, the Moab Valley Fire Protection District's phone number is 259-5557. MVFPD will be the initial fire control agency contacted, and they may request support from the list of secondary resource agencies.

#### **B. Secondary Resources**

<b>Agency</b>	<b>Phone</b>	<b>Personnel</b>
The Nature Conservancy	259-4629 W	Resource Advisor- Damian Fagan
Moab Project Office	259-7205 H	
	259-7607 H	Resource Advisor -Sue Bellagamba
Division of Forestry, Fire & State Lands	259-3766	Grand County Fire Warden/staff
Moab Fire Center	259-2123	BLM Dispatch
Grand County Sheriff's Office	259-8115	Law Enforcement

### **C. TNC Personnel**

The Colorado/Green Rivers Area Program Manager has attended the basic wildfire fighting training courses (S130/S190), but does not possess a current Red Card. However, TNC personnel associated with the preserve may assist fire protection agencies as resource advisors.

## **VI. Post-fire Monitoring**

Wildfires offer the opportunity to study the effects of fire on riparian or wetland communities. Depending upon the extent of the fire, post-fire monitoring could include vegetation transects to determine post-fire succession, photo documentation and monitoring, as well as maintenance of invasive or noxious weeds. Monitoring efforts would be dependent upon staff availability.

## **VII. Presuppression**

Several activities can facilitate suppression efforts, allow for a higher degree of firefighter safety and protect conservation targets in the Preserve. A review of fuels around structures or along neighboring lands will occur prior to and during the course of the fire season. When possible and practical, mechanical treatments would be conducted to reduce the fuel load, develop defensible space around values at risk or to create fuel breaks between the preserve and residential or commercial neighbors. Treatments could include mowing, cutting, herbicide use, slash burning, and surface water management.

The use of prescribed fire as a management tool on the preserve may be an option to meet various resource needs. If prescribed fire is to be employed, a site fire management plan will be completed prior to implementation of controlled burns.

Priority areas for presuppression activities are:

1. Steward Lane – maintain the existing fuel break between the preserve and residential areas,
2. North End Access – create a fuel break between the preserve and commercial entities in the North Corridor,
3. Boardwalk trail – reduce fuel loading around values at risk such as the boardwalk trail, viewing blind and outdoor classroom,
4. Existing powerlines – continue cooperation between Utah Power, TNC and UDWR to manage vegetation in powerline easements,
5. Pipelines – continue cooperation between Williams Energy to manage vegetation in pipeline easements,
6. Byrd Property Boundary – review area for vegetation management (mowing) and water management,
7. South Pond – review area for vegetation management (mowing) and water management.

## **VIII. Fire Records and Reports**

Review of wildland fires will be conducted in accordance with procedures outlined in the Conservancy's Fire Management Manual. A Fire Summary Report will be used to document each fire occurrence and include information on fire behavior, weather conditions, fuel

conditions, crew and equipment problems, and any other events associated with the fire. Individual suppression agencies would be responsible for their agency-specific reporting requirements.

## **IX. Annual Fire Management Plan Review**

This wildfire response plan will be reviewed annually by the Colorado/Green Rivers Area Program Manager. Updates or changes will be made prior to the upcoming fire season. Deletions or changes that warrant review by assisting agencies or the TNC Regional Fire Manager will be conducted. An annual field visit with fire control agencies will be conducted to discuss safety issues, mitigation actions, access routes, water availability, and other fire related issues.

Copies of this Wildfire Response Plan will be provided to all fire protection agencies and will be posted in the Moab Project Office adjacent to the calendar of events.

## **Appendix A. Radio Communications**

<b>Function</b>	<b>Channel</b>	<b>Transmit</b>	<b>Receive</b>
Fire Operations	Niims I.A.	168.550	168.550
Moab F.P.D.	M.V.F.D. (Repeater)	154.430 153.770	154.430 154.430 (T.G. 103.5)
Scene to Dispatch	Grand County Sheriff's Office	155.730	155.130 (T.G. 103.5)
Scene to Dispatch	M.I.F.C.	163.025	163.025
Law Enforcement	Grand County Sheriff's Office	155.730	155.130 (T.G. 103.5)
Air to Ground	Interagency	167.950	167.950

Figure 1. Site Map



