

SAN RAFAEL REEF WSA

VOLUNTEER MONITORING ORIENTATION:

WSA Citizen Monitoring Coordinator:

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Setting and Terrain

San Rafael Reef WSA is located in Emery County approximately 18 miles west of Green River, Utah (pop. 973). The unit is about 22 miles long from north to south and 6 to 8 miles from east to west. The area consists of 59,170 acres of BLM managed land with 6 parcels of state owned land (4,029 acres) within the WSA boundary.

The study area makes up the eastern edge of the San Rafael Swell and is a nearly north-south trending hogback that dips steeply eastward. Considered a major geologic feature in Utah, the area consists of canyons from 200 to 1000 feet deep that drain eastward, domes, and vertical fins. Elevations range from 4,800 feet along the eastern base of the Reef to 6,600 feet in the central and northern portions. Vegetation consists primarily of pinyon-juniper woodlands and is barren rock in most places. Desert bighorn sheep, cougars, peregrine falcons, bald eagles, and golden eagles all frequent the WSA. In addition, two endangered plants species (Maguire daisy and Wright fishhook cactus) and two threatened plant species (Jones cyclodonia and Last Chance townsendia) may also exist in the unit.

Solitude, recreation, and spectacular views are commonplace in the San Rafael Reef WSA. Due to its relatively easy access from both I-70 and Highway 24, the area offers prime opportunity to explore some of the most beautiful canyon country in the west.

BLM Management Strategy

San Rafael Reef WSA is managed in accordance with BLM Manual 6330 – Management of Wilderness Study Areas (WSA). Since WSAs are areas that have been recommended to

Congress for potential designation as wilderness under the Wilderness Act, the guiding requirement of managing WSAs is the “non-impairment” principle. BLM is directed by policy to prevent any activities that would impair or degrade the area’s suitability for future consideration as designated wilderness. This means that BLM must prevent activities that are neither temporary or would create a new surface disturbance within the WSA.

In the practical sense, this management strategy involves preventing the placement of new permanent structures. Construction of new trails or vehicle routes is prohibited. Motorized and mechanized activities are not permitted except on valid, existing routes authorized within the WSA. Vehicular or mechanical cross country travel is strictly forbidden except in emergencies. Commercial activities are also restricted. Landing aircraft is prohibited.

Permissible activities would include camping, backpacking, rock climbing, skiing, caving, hunting, and other primitive pursuits. Installing bolts for climbing is not allowable. Activities such as mountain biking, geocaching, rock hounding, gold panning, and aerial activities like hang gliding or paragliding may be permissible as long as they do not create new surface disturbance or establish the precedent of a new discretionary use in a WSA where it did not previously exist. Prior authorization to conduct non-primitive, mechanized, or surface disturbing activities must be obtained from BLM.

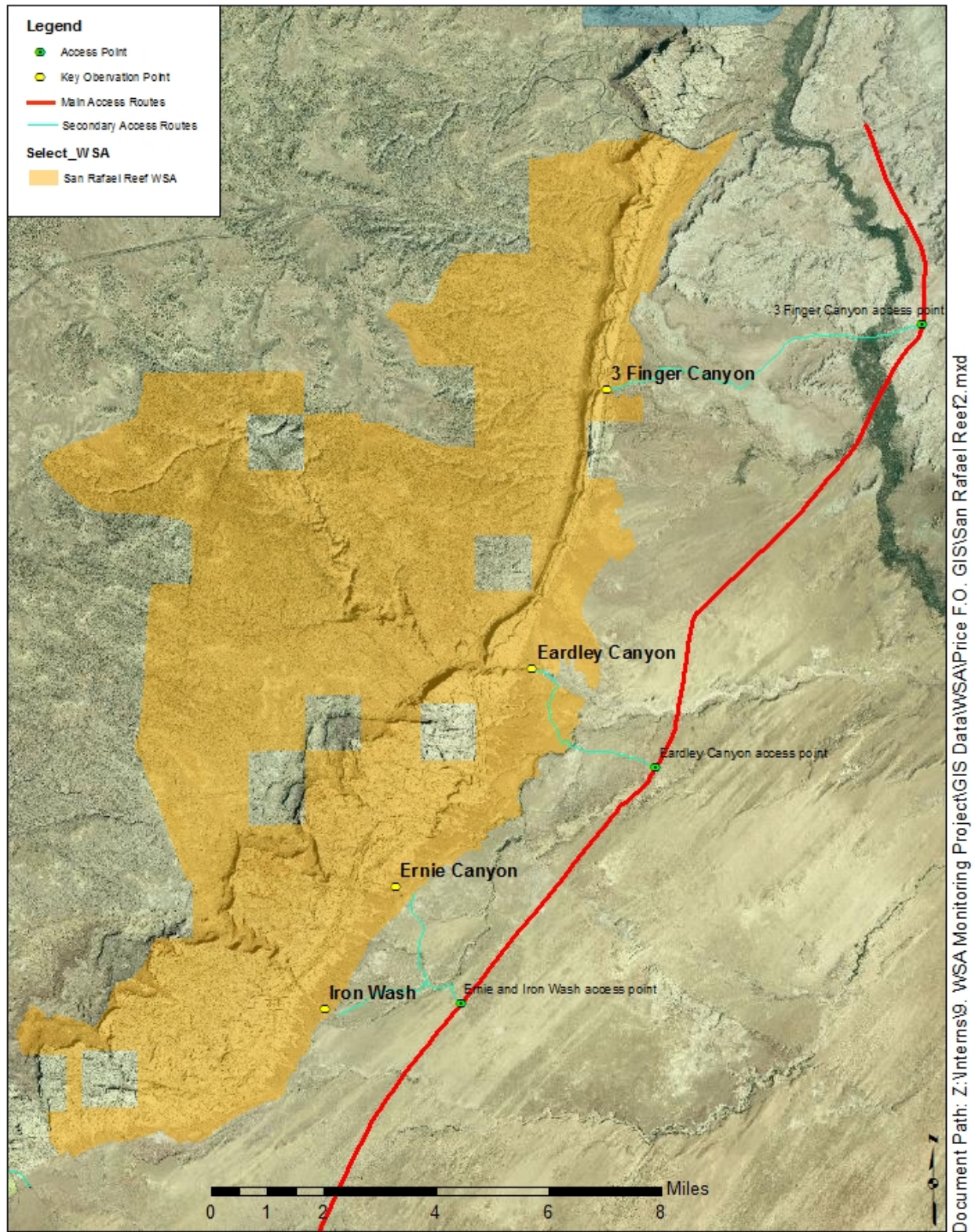
Monitoring Areas and Key Observation Points

Monitoring areas are general areas, trails, or routes within a WSA. Key Observation Points (KOP’s) are exact locations of significant management interest. Management areas and KOP’s could be of significant management interest because they are high-use, experience surface disturbance, or provide a viewpoint where pictures of the landscape can be taken to track impacts and/or changes to habitat over time. The Sand Rafael Reef WSA has four KOP’s, displayed on the following map. GPS coordinates are listed in the following table.

Table 1: Monitoring Area - San Rafael Reef

Key Observation Point (KOP) Name	Decimal Degrees		Degrees, minutes, seconds	
	Latitude	Longitude	Latitude	Longitude
3 Finger Canyon	38.857558	-110.463388	38° 51’ 27.21”N	110° 27’ 48.20”W
Eardley Canyon	38.785759	-110.488535	38° 47’ 8.73”N	110° 29’ 18.73”W
Ernie Wash	38.7297	-110.5336	38° 43’ 46.92”N	110° 32’ 0.96”W
Iron Wash	38.6986	-110.5572	38° 41’ 54.96”N	110° 33’ 25.92”W

Figure 1: San Rafael Reef Key Observation Points



The KOP's have been designated as the primary focus of monitoring efforts. However, volunteers are encouraged to explore the associated canyons at their own discretion.

Access Routes and Transportation

The access routes to the canyons are very rough terrain and require high-clearance 4WD vehicles. These access routes may be washed out or otherwise impassable. Additional hiking to reach each KOP may be necessary.

From Price, volunteers can access the San Rafael Reef monitoring areas by traveling south on Highway 6 until reaching the intersection with I-70, a distance of approximately 57 miles. Turn right onto I-70 and travel west for approximately 8 miles. Take exit 149, and turn south onto Highway 24. The following table lists all coordinates for the location of each access point, which will lead to the Key Observation Points.

Table 2: Access Point Coordinates

Access Point Name	Decimal Degrees		Degrees, minutes, seconds	
	Latitude	Longitude	Latitude	Longitude
3 Finger Canyon Access Point	38.873323	-110.359423	38° 52' 23.96"N	110° 21' 33.92"W
Eardley Canyon Access Point	38.760446	-110.448727	38° 45' 37.61"N	110° 26' 55.42"W
Ernie and Iron Wash Access Point	38.699774	-110.512705	38° 41' 59.19"N	110° 30' 45.74"W

Note: there may be gates located along the trail. These gates may be closed, but should not be locked. Close these gates after you pass through as there may be cattle grazing in the area.

1. 3 Finger Canyon:

Travel south along Highway 24 for approximately 3.5 miles to the 3 Finger Canyon access point, which is a dirt path leading eastward toward the WSA.

2. Eardley Canyon:

From the 3 Finger Canyon access point, travel an additional 9.4 miles south to reach the Eardley Canyon access point, which is a dirt path located on the right.

3. Ernie Wash:

From the Eardley Canyon access point, travel an additional 5.4 miles southwest on Highway 24 to the Ernie Wash and Iron Wash access point. Turn right at this access point, and follow the path for approximately 1 mile, until you reach a Y intersection. Keep right at this intersection and proceed approximately 2 miles to reach the Ernie Wash KOP.

4. Iron Wash:

To reach the Iron Wash KOP, begin at the Ernie Wash and Iron Wash access point, and at the Y intersection, keep to your left. Continue on this path for approximately 1.7 miles to the KOP.

Transportation to and from the San Rafael Reef WSA will be the responsibility of volunteers. All vehicles should be equipped with at least one spare tire, tools, and supplies to deal with emergencies. While the majority of access roads are 2WD, high-clearance 4WD and all-terrain tires are recommended for all vehicles, particularly during inclement weather when roads may become impassable.

Signing

BLM signs have been placed at strategic access points designating the WSA boundary at the end of authorized vehicle routes. Fiber-glass carsonite signs and posts have been placed to notify the public that motorized access is not permissible beyond that point. Monitors should report the location of all signs and current condition to BLM.

Water Availability

There are several springs present in the WSA; however, be sure to pack plenty of water (1 gal/person/day) particularly when traveling in summer as most sources are intermittent and depend upon seasonal rainfall.

Services and Facilities

The town of Green River (pop. 973) can be used to purchase gas, groceries, water, and limited supplies before traveling to the WSA. Public phones and medical services are also available in the case of an emergency.

Communications

Cell phone coverage in San Rafael WSA is spotty at best. Use of satellite phones or SPOT locators is the only reliable means of communication with the outside world. Local residents in Green River have phones that you could request the use of in an emergency.

Resource Issues

The main resource concerns in the WSA are illegal OHV use, BLM sign vandalism, and litter. High use season is in the spring and fall, particularly during holiday weekends.

Safety Recommendations

The following table of safety recommendations should be adhered to before and during monitoring visits. Volunteers should never compromise their personal safety for the sake of monitoring. Be vigilant at all times about the weather, terrain, and personal physical condition. It is best to prepare for monitoring by using a checklist for pre-trip packing. Be sure you have sufficient shelter, clothing, equipment, food, water (1 gal/person/day), light, first aid, and survival gear for existing conditions. Table 5 below summarizes the potential hazards volunteers may experience in the field, and recommended measures to manage the hazards.

Table 3: Risk Management

Hazard: Slipping, tripping or falling on rocky or uneven terrain.
Control measure: Be aware of conditions. Wear lug soled boots with good ankle support. Walk, don't run. Side step down hill. Carry hand tools on downhill side. Measure implemented through: tailgate sessions. Reminders prior to monitoring visit.
Hazard: Snakes, insect bites, bees, encounters with wild animals and poisonous plants.
Control measure: Walk slowly through brush. Be aware of surroundings. Wear long sleeved shirts, long pants, and leather boots. Avoid scented lotions. Know your plants. Carry medication if allergies exist. Avoid attracting predators and other hazardous wildlife by keeping a clean camp. Be bear aware and know how to react if encountered by bears or other wild animals. Measure implemented through: training on poisonous plant and animal encounters. Seasonal reminders.
Hazard: Unsafe tool use
Control measure: If using hand tools, make sure handles are in good condition. If handles are cracked, broken, or have mushroom heads, do not use. Keep axes and other cutting tools sharp. Chop away from body. Wear gloves, boots. Wear goggles to prevent eye injury. Measure implemented through: Use tools for purpose intended. Wear personal protective equipment. Proper training prior to use.
Hazard: Cuts, scrapes and splinters from fencing and/or barrier materials
Control measure: Use gloves, long sleeved shirts, long pants and boots. Keep first aid kit close by. Measure implemented through: Volunteer focus on monitoring rather than maintenance. Use tools for purpose intended. Wear personal protective equipment. Proper training prior to visit
Hazard: Sprains, strains from hiking, lifting loads, swinging tools, etc.
Control measure: Use caution crossing uneven terrain. Use proper lifting techniques. Avoid twisting if swinging tools. Wear boots when digging with spade or posthole diggers. Use legs not back to lift and carry tools or supplies to work site. Measure implemented through: Use tools for purpose intended. Wear personal protective equipment. Proper training prior to use. Hike with a group or in pairs.
Hazard: Weather related illness or injury. Extreme heat or cold.
Control measure: Monitor weather closely. Wear clothing suited to weather. Carry and drink plenty of water. Know signs of heat stroke, heat exhaustion, frostbite, hypothermia and know how to treat. Measure implemented through: Check weather forecast prior to going to the field. First aid course recommended.
Hazard: Lightning or thunderstorm.
Control measure: Monitor weather closely and watch for approaching storms. Get to vehicle if possible. Stay away from trees, metal object and high ground. Measure implemented through: Check weather forecast prior to going to the field. First aid courses recommended.
Hazard: Flash flood
Control measure: Monitor weather closely when travelling in slot canyons as flash flood danger can be high and roads become impassable when wet. Watch flow in streams and washes, do not enter

or cross if water is rising. Measure implemented through: Check weather forecast prior to going to the field. First aid courses recommended.
Hazard: Confrontation with verbal and/or abusive public.
Control measure: Do not engage in confrontation. Walk away. Use radio or cell phone communication to contact BLM or Law Enforcement if needed. Measure implemented through: Share contact information prior to each monitoring visit.
Hazard: Lost, missing, or overdue volunteer
Control measure: Leave a trip itinerary and your return time with your coordinator, friends, and/or family. Plan routes in advance and minimize deviation. Carry both hard copy maps, and gps units. Familiarize volunteers with monitoring location and equipment. Travel with a group or in pairs. Regroup at predetermined times and locations. Measure implemented through: All volunteers will be instructed on the WSA's, monitoring locations, and proper use of maps/navigational equipment through trainings and informational sheets.
Hazard: Motor vehicle breakdown or accident
Control measure: Scout the route. Drivers and vehicles should not attempt to drive into areas beyond their capabilities. Provide volunteers with vehicle safety checklist. Check weather forecast prior to going to the field. Relate vehicle requirements (4WD, high clearance, etc.) based on access route conditions to volunteers. Provide emergency contact information. Measure implemented through: Training provided to volunteers and through the use of tail gate safety sessions.

Monitoring Goals

- Monitor existing vehicle routes for widening, significant deterioration, or motorized use beyond closure points. Provide photos and GPS points at key locations. Report all violations observed. If you witness illegal activity, avoid any conflict and only attempt to get identifying information (license plates and photos) if you feel it is safe.
- Rake out any vehicle tracks found beyond closed routes to a point where they are no longer visible from the closure point. Place dead vegetation across closed routes to provide camouflage.
- Document and report signs that have been damaged or need replacing.
- Document and pack out modern trash or debris whenever possible. Objects that may be historic or older than 50 years should not be disturbed.
- Deconstruct fire rings found in the backcountry.
- Document with photos and GPS any permanent structures or surface disturbance found away from existing routes.
- Photograph outstanding scenery and wildlife that you encounter.
- Enjoy yourself and have fun. Take pride in your contribution to public land conservation.

Maps

The map below shows an overview of the San Rafael Reef WSA within the state of Utah. BLM can provide more detailed topographic maps and directions to a particular area upon request.

Wilderness Study Areas in Utah - San Rafael Reef

